

PSXseecon Traffic

Manual

Version **5.42 beta**
- for Win 10 only -

June 24, 2017

Nico Kaan



Copyright © 2015-2017, Nico W. Kaan, Delft, Netherlands, All Rights reserved.

No part of this publication may be reproduced and/or published by print, photo print, microfilm or any other means without the previous written consent of Nico Kaan.

1	Introduction PSXseeconTraffic	3
1.1	Co-existence with 3d party traffic, such as VATSIM, IVAO, MyTraffic?	4
1.2	System Requirements	4
1.3	Disclaimer	4
1.4	Forum	4
1.5	Known issues	5
2	Installation.....	6
2.1	Download and install.....	6
2.2	Update and removal.....	7
3	Preparations.....	8
3.1	Create an AI_liveries.txt file.....	8
3.1.1	How to deal with private aircraft (PVT)?	9
3.2	Configure SimConnect [networked use of PSXseeconTraffic only]	9
3.2.1	Configure SimConnect.cfg.....	9
3.2.2	Configure SimConnect.xml.....	9
3.3	Install or generate parking positions for your simulator	10
4	Operations.....	11
4.1	Start and configure Flight Simulator.....	11
4.2	Start and configure PSX (<i>PSX only of course!</i>).....	11
4.3	Start and configure RealTraffic	11
4.4	Start and configure PSXseeconTraffic	11
5	Explanation of window items in the blue area of the window	14
5.1	Middle Vertical status bars	14
5.2	Limit lateral range	14
5.3	Limit vertical range.....	14
5.4	Include helicopters	15
5.5	Include light aircraft.....	15
5.6	Collision avoidance in the air.....	15
5.7	Collision avoidance on the ground.....	15
5.8	Hostaddress (PSX - only).....	15
5.9	AI.....	15
5.10	Log livery matching	15
5.11	Destination airport.....	15
5.12	# Parking positions (airport)	16
5.13	Percentage parked.....	16
5.14	# Parked Aircraft.....	16
5.15	# Live Aircraft	16
6	Messages.....	17
6.1	Information messages.....	17
6.2	Warning messages.....	17
6.3	Error messages	17
7	Support Files	19
7.1	AdditionalAirports.txt	19
7.2	Airport files in folder parked.....	19
8	AI aircraft animations	21
8.1	Live AI aircraft	21
8.1.1	Landing gear.....	21
8.1.2	Throttles	21
8.1.3	Flaps.....	21
8.1.4	Landing Lights, Navigation lights, Beacon lights, Logo Lights, Taxi Lights, Recognition Lights, Cabin Lights and Strobes.....	21
8.2	Parked aircraft	21

1 Introduction PSXseeconTraffic

PSXseeconTraffic has been developed as an add-on for the [Aerowinx PSX](#). However, since version 5.0 it also supports any user aircraft in P3D and FSX. You can fly with your aircraft with live traffic. The live traffic information is provided by [RealTraffic](#).

PSXseeconTraffic injects the aircraft within range of your aircraft in your Flight Simulator. For those aircraft the liveries (type and airline) are created as real as possible, depending on how many different AI aircraft you have installed in P3D/FSX.

A list of the liveries that you have installed is input for PSXseeconTraffic and can easily be created with my [VMRGenerator](#) application.

The livery for the aircraft is searched in a best effort matching process of up to seven steps:

Step	Match	Indicated in log by
1	Registration code	=== r
2	ICAO airline *) code and ICAO aircraft type	===
3	airline and similar type(-s)	=s=
4	Generic **) Boeing, Airbus, Embraer, Bombardier or ATR livery and type	=g=
5	random airline livery and type	=x=
6	random airline livery and similar type(-s)	=X=
7	a default aircraft livery, randomly chosen out of a number of light aircraft liveries, if not available a fixed first livery is	=d=

*) If 3 letters followed by at least one digit is not found (ICAO) it will search for two letters (IATA) followed by at least one digit and two other characters.

) Generic (fabric) livery without an airline paint. In order to get these liveries found, use **BOE, **AIB**, **EMB**, **BBA** or **AED** as airline code in your [fltsim.x] section (as parking_codes= value).

PSXseeconTraffic makes the AI traffic look very smooth. It calculates a position for each live AI aircraft 25 times per second, by computing latitude, longitude, height, bank and pitch. It also takes care of setting the throttles, strobes, lights, flaps and it handles the landing gear at take-off and landing.

It also provides a mechanism to put AI aircraft at parking positions at your origin and destination airports.

In the version for PSX, PSXseeconTraffic sends information to PSX about nearby aircraft to be displayed in the Navigational Displays (TCAS) at the FlightDeck.

Flying in live traffic implies that you have to set your Flight Simulator at real-time, it has no use to choose another day/time, while the live traffic stream is always real-time. For the same reason one should not fly in accelerator mode.

The data from RealTraffic is based on ADS-B transponder data of aircraft. When airborne this gives very good results, on the ground it depends on airport policy. At some airports pilots must have their transponder on, while on other airports they have to switch off their transponder after landing. At those airports there will be not much taxiing traffic to see. But on the other airports you may follow the aircraft after landing taxiing to the gate or from the gate to the take-off runway.

You may also notice a difference in quality of their ADS-B equipment, the newest aircraft have the best while older ones need replacement. The good news is that these replacements will take place soon (within a few years).

1.1 Co-existence with 3d party traffic, such as VATSIM, IVAO, MyTraffic?

I don't recommend to add third party traffic... It sounds weird to me that you should want as well live traffic as on-line or "canned" traffic.

However, because of several requests that I received, I made it technically possible that both systems can co-exist, or better phrased: PSXseeconTraffic will not be disturbed by other traffic. What the effect of PSXseeconTraffic aircraft on the third party will be, I don't know ...

PSXseeconTraffic will detect third party aircraft, injected in your Simulator by other programs then PSXseeconTraffic, and it will log a message containing the callsign. The third party aircraft will be ignored.

Do note that there is no collision detection (yet) between third party aircraft and live- or parked aircraft.

1.2 System Requirements

PSXseeconTraffic is a C++, 32 bit **or 64 bit** Windows application for **Windows 10**.


You need Microsoft Visual C++ Redistributable for Visual Studio **2015**. The standalone installers for x86 (vc_redist.x86.exe) and x64 (vc_redist.x64.exe) can be [downloaded here at Microsoft](#).

The 32 bit version of PSXseeconTraffic depends on (side-by-side-configuration) the Microsoft Simconnect Client version **10.0.61259**. The installation file **SimConnect.msi** can be found in

```
..\Prepar3D v3\redist\interface\FSX-SP2-XPACK\retail\lib\SimConnect.msi
```

and in FSX at a similar location. Install the SimConnect Client at the PC running PSXseeconTraffic.

The 64 bit version has **no** side-by-side dependencies. It looks like you do not need to install any Simconnect Client (*has to search this out still*).

	The 64 bit version is for Prepar3D v4 only!
---	---

1.3 Disclaimer

The RealTraffic stream gives position updates of all aircraft around you every nine seconds. In order to correct for internet transmission lags, and to be able to vectorise the traffic, PSXseeconTraffic buffers the input for thirty seconds. The traffic you see is therefore **thirty seconds behind real time**. If you would consult apps such as [FlightRadar24](#), or would listen to a real ATC channel, this has to be taken into account.

Note that one should also not use the FSUIPC traffic limiter.

The data of RealTraffic is not perfect. Most of the time aircraft land at runways, but sometimes they don't. Please take note of the known issues in Chapter 1.5.

1.4 Forum

For questions & answers and discussions use my Forum at [MyCockpit.org forum](#).

1.5 Known issues

The data in **RealTraffic for PSX** is not always correct, this may lead to the following issues:

- Sometimes aircraft do not land at the runway but in the fields ...
- Some airlines/aircraft-types always seem to land besides the runway; as-if their ADS_B equipment is not sending the right info.
- Sometimes aircraft disappear from the RealTraffic stream for more than 30 seconds which will lead to disappearance from your Flight Simulator while popping up again (a little) later.
- Runways that lay higher than the surroundings, such as KFSO (with the sea) may cause problems with landings at certain QNHs. They may come in too low, due to the incorrect height above ground measurements, just before the runway.
- Some airlines perform much better than other airlines.
- At high QNH (>1025 HPa) aircraft may come in high when landing ...
- ...

Issues with **SimConnect**:

If an aircraft's gear is not extended when landing or when it dives into the ground, or if an aircraft fails to climb after take-off, there is probably a temporary SimConnect problem in your Flight Simulator (*PSXseeconTraffic is not/no longer getting altitudes above ground from AI aircraft from SimConnect*).

If so, stop PSXseeconTraffic, restart your Flight Simulator and then restart PSXseeconTraffic, to get everything back to normal again.

Issues with **sceneries**:

Some sceneries have runways that are not at the exact spot. For example EHAM of Aerosoft. Aircraft land and take-off way off the centre line.

Issues with **missing airports** in PSXseeconTraffic:

PSXseeconTraffic contains a database with about 2400 major airports world wide. Some areas may not be covered. See section 7.1 how to cope with that.

Work continues ...

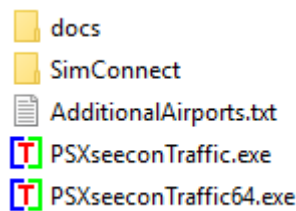
2 Installation

2.1 Download and install

Download PSXseeconTraffic_vx.y.zip from www.lekseecon.nl/PSXseeconTraffic.html.

You may install PSXseeconTraffic at any Windows 10 PC in your local network. Installation is not difficult, there is no install procedure, no registry entries, and no program groups. Just unzip wherever you want.

After unzipping, you will have a PSXseeconTraffic folder containing the following files and folders:



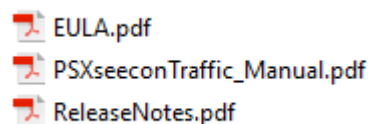
PSXseeconTraffic.exe is the 32 bit application.

PSXseeconTraffic64.exe is the 64 bit application to be used together with Prepar3D v4 (only!).


Note that for the 64 bit version the configuration and log files are named as in the 32 bit version: PSXseeconTraffic.cfg and PSXseeconTraffic.log.

For the use of the AdditionalAirports.txt file see section 7.1.

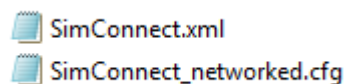
The **docs** folder contains the following files:



Documentation is provided by means of the pdf files PSXseeconTraffic_Manual and ReleaseNotes.

	<p>An important file is EULA.pdf. This End-User License Agreement is a legally enforceable contract between you and the Author. By downloading and installing the PSXseeconTraffic package, you agree to be bound by the terms of this EULA.</p>
---	--

The **SimConnect** folder contains the following files:



For the use of the SimConnect.xml and SimConnect_networked.cfg and files see section 3.2.

A **separate** download provides folder **parked** with 5398 airport files, see section 7.2. Unzip and put the folder parked inside PSXseeconTraffic.

Another **separate** download provides the **ParkPosGenerator**, see section 3.3.

2.2 Update and removal

Download PSXseeconTraffic_vx.y.zip, unzip and simply overwrite all files. Your PSXseeconTraffic.cfg and SimConnect.cfg (if in use) will not be touched, same for your parked folder.

Removing PSXseeconTraffic from your PC can be done just by deleting the PSXseeconTraffic folder and its contents. There are no registry entries.

3 Preparations

3.1 Create an AI_liveries.txt file

PSXseeconTraffic does not come with AI aircraft, you have to install these yourself. VATSIM and IVAO pilots will already have done that.


On the internet you may find lots of sites describing how to install AI aircraft, for instance [this step-by-step guide for FSX](#), or this you tube video explaining [installing WoAI in P3D V3](#).

Don't forget to add the correct entries for your installed freeware and pay ware aircraft in
 P3D v2: <appdata> Prepar3D.cfg
 P3D v3: C:\ProgramData\Lockheed Martin\Prepar3D v3\SimObjects.cfg
 FSX: <appdata> FSX.cfg.

Otherwise your AI aircraft will not be activated in your Simulator and you will see no traffic and you will find lots of "cannot create messages" in the log of PSXseeconTraffic.

When you're satisfied about the number and diversity of the AI aircraft in your Flight Simulator, you have to create a file with all the AI liveries that you have installed. You have to do that with my tool [VMRGenerator](#).

Download and install VMRGenerator according to the instructions at my website. Run it, it will create the file **AI_liveries.txt**.

	<p>Copy the file AI_liveries.txt into your PSXseeconTraffic folder or enter a full path to the VMRGenerator folder in the User Interface, see section 5.9</p>
---	---

VMRGenerator recognizes a livery based on information it finds in the **aircraft.cfg** or **sim.cfg** file of AI aircraft(-s). It searches for the lines with:

parameter	is used as
atc_model=	ICAO aircraft type code
atc_id=	Registration code(-s)
title=	Title of livery
atc_parking_codes=	ICAO airline code(-s)

The IVAO package does not support all these parameters, but thanks to their rigid information structure VMRGenerator can generate rules for their aircraft. However, you must have installed IVAO in its default folder: ..\SimObjects\IVAO_MTL or ..\IVAO_MTL, in order to be recognised by VMRGenerator. IVAO liveries are recognised based on:

parameter	is used as
max 4 letters after "IVAO_" in the folder name	ICAO aircraft type code
atc_id=	Registration code(-s)
title=	Title of livery
first 3 letters after the aircrafttype code in the title=	ICAO airline code

Normally a livery has of course only one unique Registration code. However, you may fill in multiple Registration codes separated by comma's. Thus it is easier to separate different groups of liveries for a single type without having to install all liveries. For example to

differ between normal BAW 744 liveries and BAW Oneworld 744 liveries. Or to separate all freighter liveries of a certain type from the pax liveries of that same type.

The registration codes for lots of airlines can be found [here](#).

3.1.1 How to deal with private aircraft (PVT)?

Private (GA) aircraft often do not have an airline code. I recommend to use a non (ICAO) existing airline code **PVT** (for Private) for these type of aircraft. So change the `atc_parking_codes` lines to

atc_parking_codes=PVT

or for IVAO_MTL: **title=<aircrafttypecode>PVT**

in `aircraft.cfg` files that define a private aircraft livery.

This way you can add this code manually in an airport text file, for parking positions where you want to see private aircraft only. The ParkPosGenerator will generate this code for GA_Light positions too, if no airline is specified.

3.2 Configure SimConnect [networked use of PSXseeconTraffic only]

If, and only if, you run PSXseeconTraffic and your Flight Simulator at different computers, in your local area network, you have to configure SimConnect. If so perform the following two steps.

3.2.1 Configure SimConnect.cfg

Rename the file `SimConnect_networked.cfg` into **SimConnect.cfg** and **put it in the PSXseeconTraffic folder!**

Open the file `SimConnect.cfg` with *Notepad* and change the IP address in the line **Address=192.168.1.105** to show the IP address of the computer running your Flight Simulator.

3.2.2 Configure SimConnect.xml

*PSX users: If you already have VisualPSX running remotely from your Flight Simulator you do not have to change the **SimConnect.xml** file at the Flight Simulators computer, because PSXseeconTraffic uses the same Port (**29764**) as VisualPSX.*

Open the file `SimConnect.xml`, that comes with PSXseeconTraffic, with *NotePad* and change the IP address in the line **<Address>192.168.1.105</Address>** to show the IP address of the computer running your Flight Simulator.

If you have no other applications using SimConnect with P3D/FSX you will need to install `SimConnect.xml` as follows:

P3D: Copy or move `SimConnect.xml` to the computer running P3D and place it in the folder `C:\Users\\AppData\Roaming\Lockheed Martin\Prepar3D v3`

FSX: similar

Otherwise, if you do have other applications using Simconnect with P3D, such as AS16/ASNext, you will need to **append** the lines starting with `<SimConnect.Comm>` and ending with `</SimConnect.Comm>`, **to your existing Simconnect.xml** above the line `</SimBase.Document>`. The location of your `SimConnect.xml` file is given above.

So add this block of code, with of course the IP address of your FlightSim PC, see above:

```
<SimConnect.Comm>  
  <Disabled>False</Disabled>  
  <Protocol>IPv4</Protocol>  
  <Scope>global</Scope>  
  <MaxClients>64</MaxClients>  
  <Address>192.168.1.105</Address>  
  <Port>29764</Port>  
  <MaxRecvSize>8192</MaxRecvSize>  
  <DisableNagle>False</DisableNagle>  
</SimConnect.Comm>
```

3.3 Install or generate parking positions for your simulator

You can download from my website a **Parked** folder with **5398** airport files, put the Parked folder in the PSXseeconTraffic folder.

However, you may want to generate new ones, because you have other airports than I have, or you have the same airports but from a different manufacturer.

If so, download **ParkPosGenerator** from my website and unzip it to your FlightSim PC. See the ParkPosgenerator Manual for further instructions.

4 Operations

4.1 Start and configure Flight Simulator

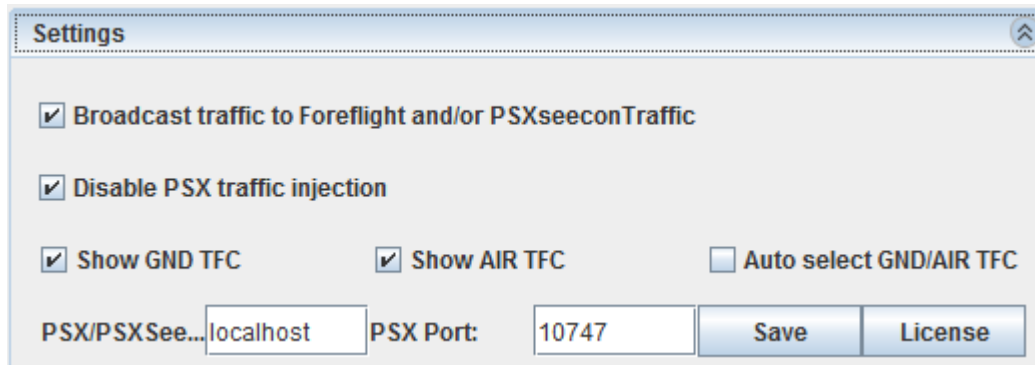
- Prepar3D versions 2.5 or later or Microsoft FSX SP2
- Make sure the AirlineTraffic density and General aviation traffic density is set at **0%**.
- Set the day/time to system time, and fly in 1x mode (no acceleration).
- FSX: Do not select "Aircraft cast shadows on the ground"


4.2 Start and configure PSX (*PSX only of course!*).

- Make sure you have real-live / real-time weather in PSX.
- Connect PSX with your Flight Simulator, by using [VisualPSX](#) or [PSX.NET P3D ExternalSim](#) for visuals.

4.3 Start and configure RealTraffic

Make sure you are using **Windows** version **4.0.4** or later. For the Settings :



	<p>Select the values exactly as shown above!</p>
---	---

4.4 Start and configure PSXseeconTraffic

Out of the box, PSXseeconTraffic will start **in User Aircraft Mode** (using any aircraft in P3D or FSX, so not the PSX mode)

If all goes well you will see a screen like this:



The header line gives information about the version, program name (32/64 bit) and copyright. There is a checkbox to make the program always stay on top of your screen:



At each start-up PSXseeconTraffic will check if there is a new version available. If so the – normally- green version message in the main window will turn yellow, and the new version number will be indicated. This is just a reminder, you have to download and install the new version yourself.

If you do not want this functionality, you can switch it off by adding this line to PSXseeconTraffic.cfg (in the same folder as PSXseeconTraffic.exe):


VERSION_CHECK=0

The black area below the header is divided into two sections:



The right section is always about your Flight Simulator (P3D or FSX), it shows in white font its version.

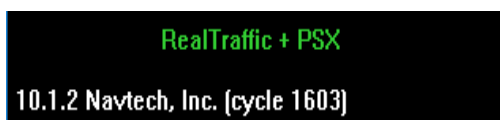
The left section depends on the mode. In User Aircraft Mode it is titled RealTraffic, it shows in white what aircraft you are flying in your Flight Simulator.



Important!

You can change the User Aircraft mode to **PSX Mode** by adding **PSX=1** to PSXseeconTraffic.cfg in the PSXseeconTraffic folder.

In PSX mode the left section will be titled RealTraffic + PSX, and in white the Aerowinx PSX version is shown:



You can reposition PSX or your user aircraft without having to re-start PSXseeconTraffic.

During each session a file **PSXseeconTraffic.log** will be written in the same folder as PSXseeconTraffic.exe. The previous version will be renamed to PSXseeconTraffic0.log.

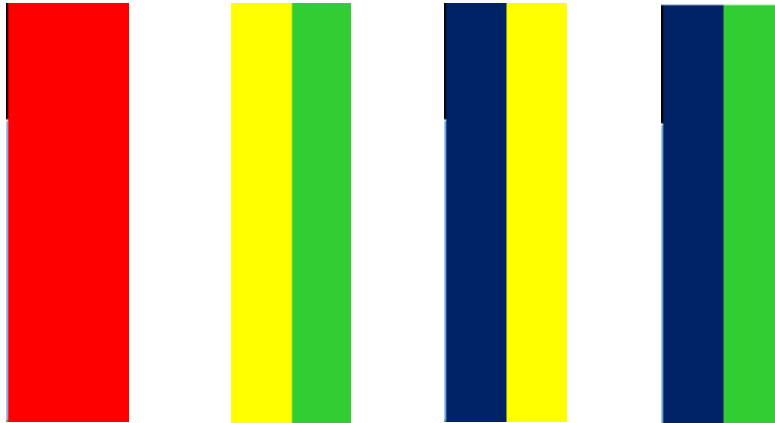
Of interest are the warning messages about liveries that could not be created in your Flight Simulator. You should remove these from your AI_liveries.txt file, or better remove the respective AI aircraft in your Flight Simulator, by changing the aircraft.cfg file.

At the end of the log file a summary is given about the liveries used for live traffic.

5 Explanation of window items in the blue area of the window

5.1 Middle Vertical status bars

In the middle of the window there are two adjacent coloured vertical status bars, the left one indicates the status of RealTraffic, the right one indicates the status of Flight Simulator.



If the right one is red, Flight Simulator is not connected.

If the right one is yellow, Flight Simulator is connected but not running, maybe you are loading a flight or browsing in the menu items.

If the left one is red:

- In UAC Mode: Real Traffic is not connected.
- In PSX Mode: PSX is not connected.


If the left one is yellow:

- In UAC Mode: Real Traffic is connected but we are not yet connected to the foreflight datastream provided by RealTraffic.
- In PSX Mode: PSX is connected but we are not yet connected to the foreflight datastream provided by RealTraffic.

If the left one is **dark blue** and the right one **green**, the necessary programs (for that Mode) are successfully connected!

5.2 Limit lateral range

All aircraft within a lateral range of **80 nm** can be selected for display in your Flight Simulator. The **default lateral** range is **40 nm**, you may change that number in the lateral range text box to values between 5 and 80 (don't forget to press **Enter** after typing a new value!).

	<p>If you are using FSUIPC make sure that the settings for "Limit TCAS range" on the Misc tab are equal to the value in PSXseeconTraffic.</p>
---	---

5.3 Limit vertical range

If the limited vertical checkbox is selected, then only aircraft within 10.000 feet difference in altitude with PSX/the user aircraft are taken into account.

5.4 Include helicopters

If include helicopters checkbox is selected, helicopters will be shown in your Simulator.

5.5 Include light aircraft

If include light aircraft checkbox is selected, light aircraft will be shown in your Simulator.

5.6 Collision avoidance in the air

In the air a "near collision" is defined if an AI aircraft is within 3 nm laterally and +/- 800 ft vertically from the user aircraft. See further the next section.

5.7 Collision avoidance on the ground

PSXseeconTraffic may check, each second, for the near collision of the PSX /user aircraft with a live aircraft. If so, the live aircraft will be removed for at least 30 seconds. It will return if there is no longer a near collision.

PSXseeconTraffic may also check, each second, for the near collision of the PSX/user aircraft or a live aircraft with a parked aircraft. If so, the parked aircraft will be removed. It will not return during the session at this airport.

The "rules of thumb" for detecting a near collision at the ground are as follows:

- there are three categories of aircraft Light+Helicopters, Middle or Heavy;
- two aircraft types collide if the distance between their main gears is less than a value dependent on the aircraft categories of both parties.

5.8 Hostaddress (PSX - only)

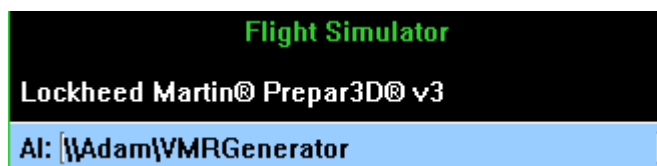
The IP-address (hostaddress) of PSX, default **127.0.0.1**.

If PSX runs at another computer then the one running PSXseeconTraffic you have to give the IP-address of the PSX main Server. Put the cursor in the textbox and after editing press the **Enter** key. If you have entered a valid IP-address PSXseeconTraffic will exit. Just re-start PSXseeconTraffic to let this new IP-address become active.

5.9 AI

This is a textbox in which you can enter a **full path name** to your VMRGenerator folder. If you do that you do not need to copy the file AI_Liveries.txt into the PSXseeconTraffic folder (each time after you have run VMRGenerator).

It may be a full path at the same PC or at a networked PC. In case of networked, use two slashes followed by the PC name followed by a slash and then the Sharename, like this:



Do not forget to press Enter after you have finished editing.

5.10 Log livery matching

If checked information about each livery match (parked and live aircraft) is written to the log file. For the matching process of live aircraft see the Introduction chapter. For the matching process of parked aircraft see section 7.2.

5.11 Destination airport

This is the ICAO code of your destination airport, to be filled in manually. Put the cursor in the textbox, type an ICAO code edit and **press Enter**. Information messages will give you feedback.

Only destinations that are present in your parked folder (section 7.1) are allowed.

If your destination is within 40 NM, parked aircraft will be placed on your destination airport (if percentage parked > 0 of course).

If you fill in a new destination, and there are no parked aircraft at your origin, PSXseeconTraffic will show the # parking positions and percentage parked values of your destination airport file immediately.

If you fill in a new destination while you are still at your origin, the # parking positions and percentage parked values of your destination will be shown as soon as your origin airport is out of sight and parked aircraft have been removed.

So you have enough time to manually overrule the percentage (if needed), before parking of aircraft at your destination takes place.

5.12 # Parking positions (airport)

Shows the number of parking positions available at either the origin airport (where you start your flight) or at the destination airport. The airport is shown between parenthesis.

5.13 Percentage parked

The percentage parked value; default value is 30.

This percentage defines, on average, how many of the available parking positions at an airport will get a parked aircraft. These parking positions are drawn randomly such that on average the specified percentage of the parking positions will have an aircraft (see section 7.1).

This value will be set to the airport specific value automatically, if an airport file contains a setting for parameter PERCENTAGE_PARKED, see section 7.1

Only for destination airports you may change this value manually, in the time frame between PSXseeconTraffic showing the percentage in the destination airport file, and when parking starts!

To change this percentage, put the cursor in the textbox, type a percentage and **press Enter**, an information message will show you the new value.

5.14 # Parked Aircraft

Shown is the number of **parked** aircraft at your origin or for your destination, in your Flight Simulator.

This value may decrease while PSXseeconTraffic removes a parked aircraft when a collision with the user aircraft or a live aircraft is about to happen.

This value may increase when a live aircraft disappears from the RealTraffic stream while it is at a parking position (probably arriving at this position). PSXseeconTraffic will position it correctly at the parking position and it'll stay there as a parked aircraft, until another live aircraft claims this position.

5.15 # Live Aircraft

Shown is the number of **live aircraft** injected by PSXseeconTraffic in your Flight Simulator. Note that this number includes the (up-coming) ones that are in the 30 seconds buffer, so it is not always the number of aircraft that you see in your flight simulator.

6 Messages

6.1 Information messages

In the green area at the bottom of the window, information messages, in yellow font, will show up.

Only in User Aircraft Mode (so not for PSX):

In the dark blue area at the bottom of the window, METAR messages, in white font, will appear.

```
EHAM 280555Z VRB02KT 9999 VCSH FEW010 FEW015CB SCT040 07/06 Q1013 TEMPO FEW015
```


6.2 Warning messages

In the dark blue area of the window, warning messages, in red font, may show up, while PSXseeconTraffic continues to operate.

6.3 Error messages

The dark blue area at the bottom of the window turns red if an error messages in yellow appears, for example:

```
51: File AI_liveries.txt not found
```

	<p>Error messages are always severe.</p> <p>You have to exit PSXseeconTraffic yourself with the Windows X button!</p>
---	--

The error messages (and what to do) are:

#	Error Message (and what to do)
17	<p><i>PSX only:</i> Connect to TCP/IP failure, <hostaddress>, <port></p> <p><i>A Fire Wall might block the connection to PSXSeeconTraffic request. Allow PSXseeconTraffic access.</i></p>
18	<p><i>PSX only:</i> Connection attempt to PSX timed out</p> <p><i>Is your hostaddress value correct (see section 5.2)?</i></p>
19	<p><i>PSX only:</i> PSX not detected</p> <p><i>Is PSX running?</i></p>
20	<p><i>(PSX only?:)</i> Bind to RealTraffic failed. Is Aerowinx PSX running? If so change version.</p> <p>Are you running with the UAC version? Change to PSX by adding PSX=1 to PSXseeconTraffic.cfg.</p>
51	<p>File AI_liveries.txt not found</p> <p>Create this file, see section 3.1. and put it in the data subfolder</p>
52	<p>AI_liveries.txt does not contain liveries</p> <p><i>Make sure you have AI aircraft installed, and create such a file, see section 3.1.</i></p>
61	<p>File SimilarTypes.txt not found</p> <p><i>This file should be in the data subfolder (it's in the full package)</i></p>
62	<p>SimilarTypes.txt does not contain any definitions</p> <p><i>This file should be in the data subfolder (it's in the full package)</i></p>
71	<p>File HeavyTypes.txt not found</p> <p><i>This file should be in the data subfolder (it's in the full package)</i></p>
72	<p>HeavyTypes.txt does not contain any definitions</p> <p><i>This file should be in the data subfolder (it's in the full package)</i></p>
81	<p>File MiddleTypes.txt not found</p> <p><i>This file should be in the data subfolder (it's in the full package)</i></p>
82	<p>MiddleTypes.txt does not contain any definitions</p> <p><i>This file should be in the data subfolder (it's in the full package)</i></p>
91	<p>File HelicopterTypes.txt not found</p> <p><i>This file should be in the data subfolder (it's in the full package)</i></p>
92	<p>HelicopterTypes.txt does not contain any definitions</p> <p><i>This file should be in the data folder (it's in the full package)</i></p>
95	<p>File GliderTypes.txt not found</p> <p><i>This file should be in the data subfolder (it's in the full package)</i></p>
96	<p>GliderTypes.txt does not contain any definitions</p> <p><i>This file should be in the data folder (it's in the full package)</i></p>

7 Support Files

7.1 AdditionalAirports.txt

PSXseeconTraffic comes with an internal database with approximately 2500 major airports world wide. This implies that many of the smaller airports will not be recognised.

However, you can easily add additional airports by defining these in the file AdditionalAirports.txt. The file is read at start-up, in the log you will find how many PSXseeconTraffic could add to the internal database.

Specify one airport per line as follows: ICAO airport code,latitude,longitude

An ICAO code is always 4 upper case letters, latitude and longitude are in decimal format with six (or more) decimals.

Example:

EHAM,52.308613,4.763889

7.2 Airport files in folder parked

In order to get rid of empty airports PSXseecontraffic provides a mechanism to park aircraft at parking positions. Sub folder **parked** contains the files, with names as (airport) ICAO code.txt, that specify parking positions.

At my website you can download a folder **parked** with a large number of airports. However, you can generate all files for your airports with my **ParkPosGenerator** tool (see section 3.3). These files can be used directly or you can first manually make them even better fit to your liking.

With "___" (three underscores) you can specify a wild card for the airline, so PSXseeconTraffic may take any airline available. With the (non-ICAO) existing code **PVT** you specify that you only want private (non airline) aircraft at this position.

A line that starts with a semicolon is treated as a comment.

When you start a session at the ground at an (origin) airport for which there are parking positions defined, PSXseeconTraffic will generate parked aircraft. Live traffic will appear after the parked aircraft have been generated.

When you fly away from the origin airport, the parked aircraft will be removed when you are greater than 5 nm from the airport.

When a destination airport comes into sight (40 nm are closer), PSXseeconTraffic will place aircraft at the specified parking positions of the new airport. During the allocation of parked airport, live traffic is holded in order to prevent SimConnect errors. *This is a temporary solution until we have found the cause of these SimConnect errors.*

How many parking positions will get a parked aircraft depends on the percentage parked value. If you do not want parked aircraft, just specify 0% percentage parked.

The **matching** is different from the matching for live aircraft.

Suppose we have specified the following airlines and types for a gate: A1,A2;T1,T2,T3
It will try the following sequential steps:

1. a random airline, say A2 + a random type, say T3.
2. A2 + similar type(-s) (existing in your configuration) for T3
3. A2 + T1
4. A2 + similar type(-s) for T1
5. A2 + T2
6. A2 + similar type(-s) for T2
7. A1 + T2

8. A1 + similar type(-s) for T2
9. A1 + T1
10. A1 + similar type(-s) for T1
11. A1 + T3
12. A1 + similar type(-s) for T3

If no suitable livery is found, the gate will not get a parked aircraft.

Suppose we have specified the following airlines and types for a gate: ____;T1,T2
It will try the following sequential steps:

1. A generic livery with a random chosen type say T2;
2. a livery (does not matter what airline or no airline) with type T2
3. a generic livery with similar types(-s) for T2
4. a livery (does not matter what airline or no airline) with similar type(-s) for T2
5. a generic livery for type T1
6. a livery (does not matter what airline or no airline) with type T1
7. a generic livery for similar type(-s) for T1
8. a livery (does not matter what airline or no airline) with similar type(-s) for T1.

If no suitable livery is found, the gate will not get a parked aircraft.

Suppose we have specified the following airlines and types for a gate: PVT;T1,T2

1. It will try the following sequential steps: "airline" PVT (private) with a random type, say T2
2. "airline" PVT (private) with a similar type(-s) for T2
3. "airline" PVT (private) with type T1
4. "airline" PVT (private) with similar type(-s) for T1

If no suitable livery is found, the gate will not get a parked aircraft.

The call sign of a parked aircraft is **ICAO Airlinecode + sequence number + _**

In an airport file you may also specify a value for the following parameter:

PERCENTAGE_PARKED=nn

You may put this line anywhere in the file; at the beginning is recommended. Airport files generated by the ParkPosGenerator (see section 3.3) already contain such a line.

If you start PSXseeconTraffic at an airport for which an airport file exists in folder parked with this parameter, this value will be taken into account immediately, instead of the current generic one (see sections 5.13).

A line starting with a semicolon is considered to be a comment.

For collision with parked aircraft detection, see section 5.7.

Other advantages of having parking positions defined for an airport is that it makes it possible to place departing live traffic at parking positions at the right position with the right heading and to "promote" a live aircraft ending its session at a parking position to a parked aircraft instead of having it disappear. So even with percentage_parked=0 you may see some parked aircraft.

8 AI aircraft animations

8.1 Live AI aircraft

PSXseecontraffic may control landing gear, throttles, flaps and all lights of live AI aircraft. Of course only for those aircraft that support the respective SimConnect events!.

8.1.1 Landing gear

The landing gear is retracted about three seconds after lift-off. The landing gear is extended if the aircraft is landing (lowering in height) and less than 2000 feet above the ground.

8.1.2 Throttles

The throttles are set to idle at the ground and to full when taking off and in the air, and to half when landing. Hopefully, this has effect on the sound coming from the AI Aircraft?

8.1.3 Flaps

The flaps are set to twenty at the ground and to up when in the air.

8.1.4 Landing Lights, Navigation lights, Beacon lights, Logo Lights, Taxi Lights, Recognition Lights, Cabin Lights and Strobes

Landing lights are on below 10.000 feet, and off at the ground.

Cabin lights, Navigation lights and Beacon are always on.

The strobes are set to on if an AI aircraft is taking-off; the strobes are set to off immediately after landing.

Logo lights are always on below 10.000 feet (although lots of AI aircraft also put Logo Lights on if cabin lights are on ...).

Recognition lights are always on below 10.000 feet.

Taxi lights are on at the ground.

8.2 Parked aircraft

For the parked AI aircraft, cabin lights and logo lights are on (if not parked at a ramp), engines are shut down, and flaps are up.