



AI **LIVE** TRAFFIC

User manual

AI Live Traffic v.1.1.1

Rev. 2019.8.9

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1. Introduction

AI Live Traffic is a Windows app that generates FSX/P3D AI traffic timetables from real world schedules in real time for specific airports and compile and install them in your flight simulator.



Right now there are many AI traffic packages containing flight timetables for almost all airlines in the world. However these flights are static as they are gathered from a specific week of a year, they are not updated until another package is released and this does not happen so frequently. Same goes for freeware and payware packages. You will see the same static timetables always, and in a short period they will become unrealistic.

Real world airlines are dynamic, flight schedules change really fast; Frequently they have new routes, fleet additions, retirements, equipment changes, etc, and these are not reflected in the "static" AI packages.



This is where AI Live Traffic will help you to enhance your flight simulator realism: Every time you start a flight in your flight simulator you will see airliners flying real flights that match with the real world counterpart. You could even sit and spot airliners in your favorite airport and keep track of them with popular flight trackers like Flightaware, FlightRadar24, Flightstats, etc.

2. How it works

AI Live Traffic will search for all the airlines scheduled flights in the real world at your origin and destination airport, then it will match every flight parsed with your personal AI Aircraft library and will create and compile the flight plans to be used within FSX or P3D as AI traffic. You will see only real flights inside your flight simulator happening in real time.



AI Live Traffic uses the default AI traffic engine from FSX/P3D, flight plans are compiled as BGL files.

Important:

Because of the dynamic real world timetable management which releases scheduled flights a few hours before it departs, AI Live Traffic needs to look for new scheduled flights every time you will start your simulator and generate a new package.

3. Requirements

- **AI Live Traffic** runs on Windows 10.
- An active internet connection is required every time **AI Live Traffic** is used. Once the traffic is generated, internet connection is not needed.
- You must have installed any of these flight simulators:
 - FSX legacy
 - FSX Steam
 - Prepar3D v3
 - Prepar3D v4
- You must have installed a comprehensive AI aircraft library.

Important:

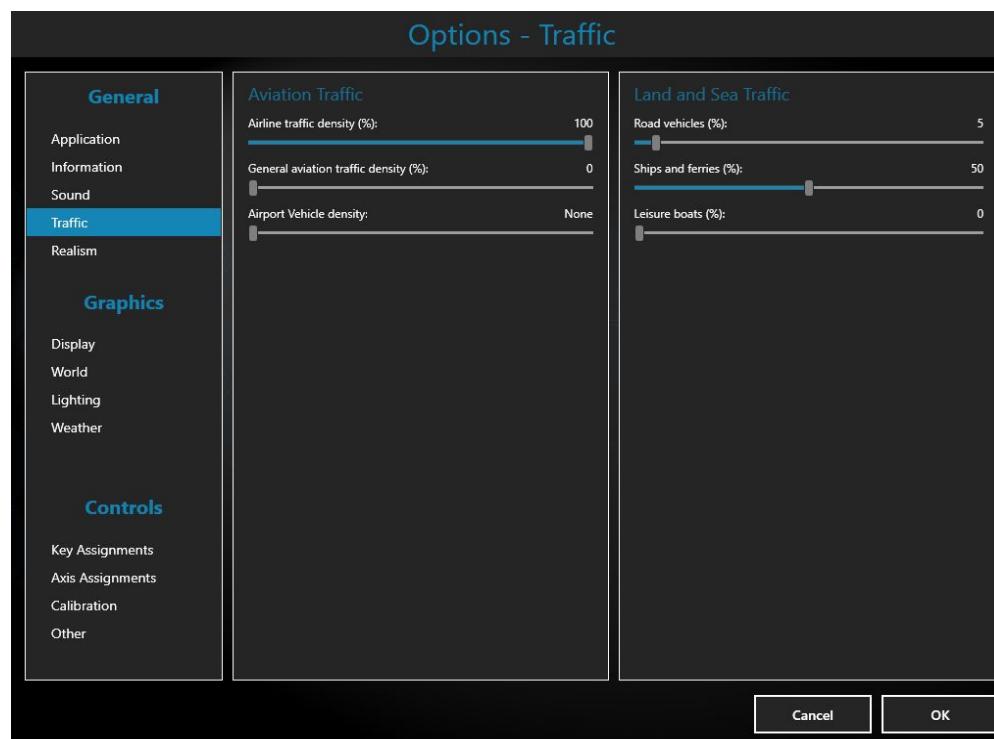
AI Live Traffic does not install any aircraft models, it only generates and compiles FSX/P3D compatible AI flight plans. The app will compile only those flight plans for which it found a corresponding AI aircraft livery installed in your simulator.

4. Preparing your flight simulator.

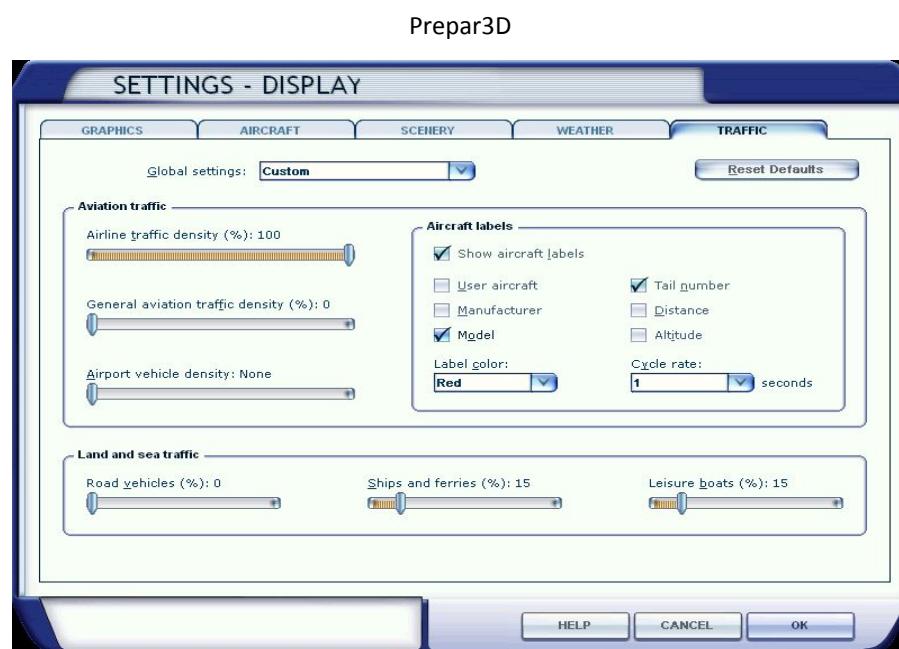
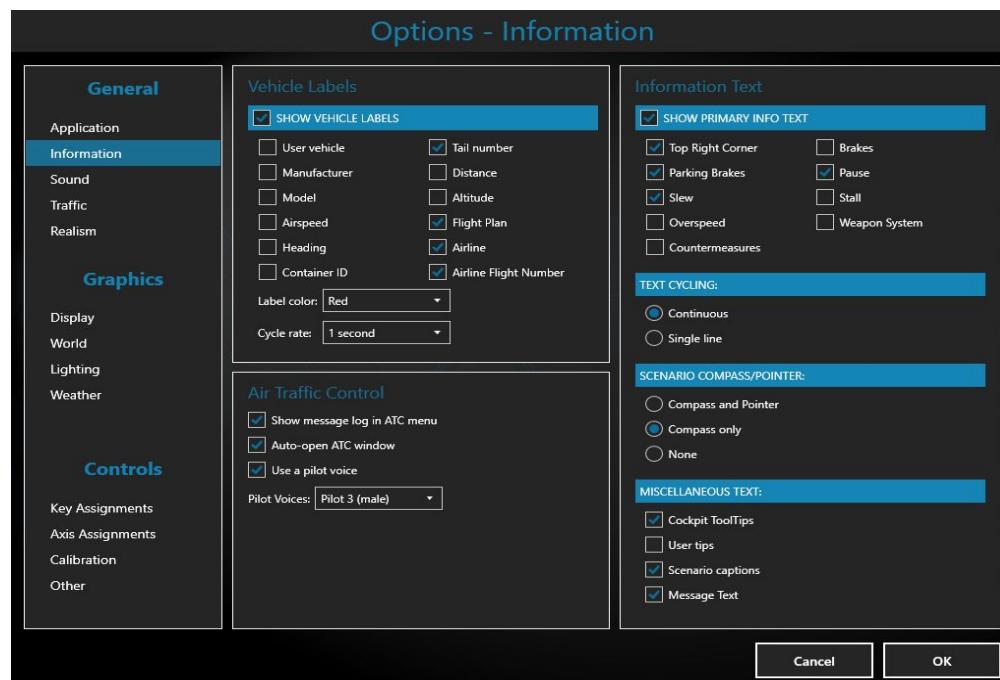
If you have installed any AI traffic add-on such as Ultimate Traffic or Global Traffic you must deactivate it before using **AI Live Traffic**.

You must deactivate or remove any third party traffic installed in your *scenery/world* folder inside your flight simulator directory. Many freeware packages such as WOAI install BGL files in this directory.

Your *airline traffic* setting must be above 0. The flights generated by **AI Live Traffic** have percent levels assigned, so you can select the amount of traffic you want with the *airline traffic* slider. As this is real live traffic you should have this setting at 100% however this could decrease your PC performance at crowded airports.



These are the suggested settings for aircraft labels. When activated, in Prepar3D you will see the Flight number, and Origin/destination on top the aircraft and in FSX you will see the Flight number only.



FSX

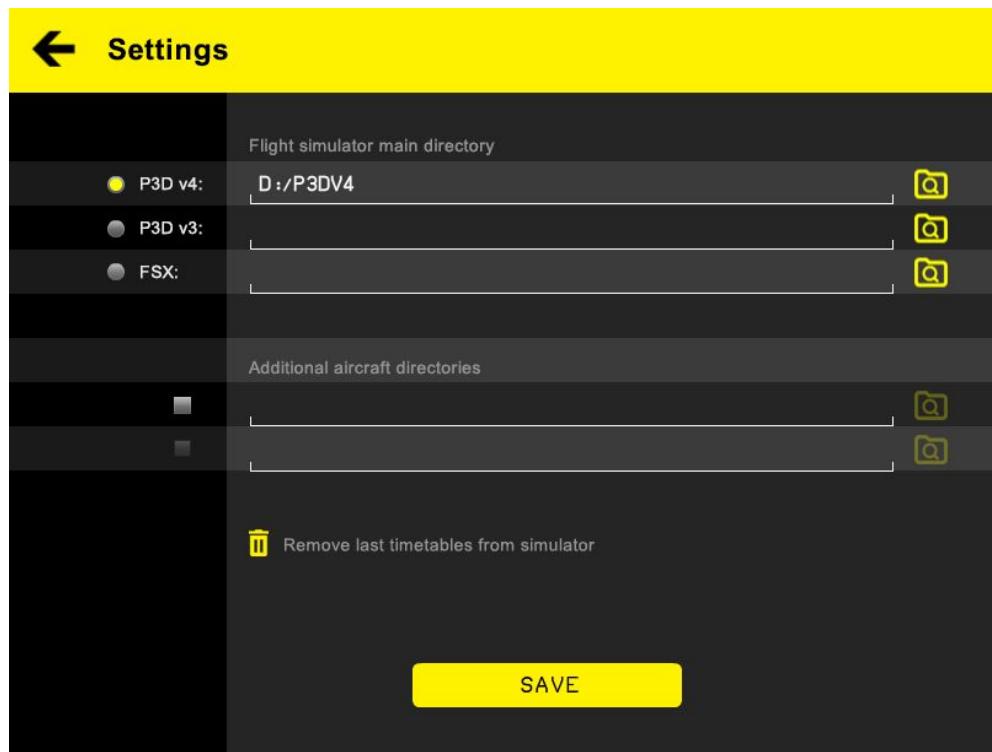
5. Installation

- Download the free app from our website <http://www.ailivetric.com>
- Run the installer as administrator.
- Select any directory you wish to install to, it does not need to be inside the flight simulator path.
- After installed run the app as administrator.

6. Configuring the app

When running the app for the first time it must analyze your local AI aircraft library, otherwise you will not be able to generate flight plans:

- Click on <Settings>.



- Locate your main flight simulator directory.
You can have only one simulator active at a time.
- If you have an AI traffic add-on installed or your AI aircraft folder is outside the flight simulator directory locate them in the <Additional folders> section.
- Save your information.

- Click on <Aircraft analyzer>.  The app will look for all your aircraft installed in the locations provided in the *Settings* window and select those suitable for AI traffic. This information will generate your local AI Aircraft database.
- Once finished, a briefing will be presented showing how many aircraft models and liveries were found.
- You can view detailed information from the analyzing process by clicking on <Logbook>. 

That's it, **AI Live Traffic** is ready to generate real world flights.

7. Generating airport timetables

AI Live Traffic needs real data to generate the AI traffic flight schedules and send them to your flight simulator.

This data is available only a few hours before their departure time. You will need to run **AI Live Traffic** and generate a timetable every time you will start your flight simulator.

AI Live Traffic can gather up to 8 hours of scheduled flights.

IMPORTANT:

Before starting the app be sure your flight simulator is **NOT RUNNING**, otherwise timetables won't be installed.

To generate a timetable:

- Click on <Generate timetable>.



← Generate Airport Timetables Prepar3D v4

UTC:	16 :24 2019-08-09
From:	<input type="text"/> IATA / ICAO
ETD:	17 : 24 UTC
To:	<input type="text"/> IATA / ICAO
ETA:	18 : 24 UTC
<input checked="" type="checkbox"/> Include route traffic	
GENERATE	

- Set an origin and a destination airport with their estimated times:
 - ETD (Estimated time departure, when do you expect to leave the gate)
 - ETA (Estimated time arrival, when do you expect to land).
- Times must be in 24 hour format in UTC time zone. Current UTC time is shown in the window.
- ETD must be within the current time up to 2 hours later.
- ETA must be within the current time up to 6 hours later.
- Origin and destination airports can be IATA or ICAO codes.
- Select if you want to include traffic in your route. This traffic is from surrounding airports

around your route, they are real flights but not in real time.

- Click on <Generate>.
- Review your data and Click <Ok>.

AI Live Traffic will look for the all the available real world flights at the specified airports within the hours selected and parse all the schedules. Then it will match your local AI aircraft library with the real airlines flights and compile the generated flight plans.

These AI flight plans will be installed in your simulator automatically. Every time you run the app the old flight plans generated before will be overwritten.

Wait for the confirmation message and that's all!

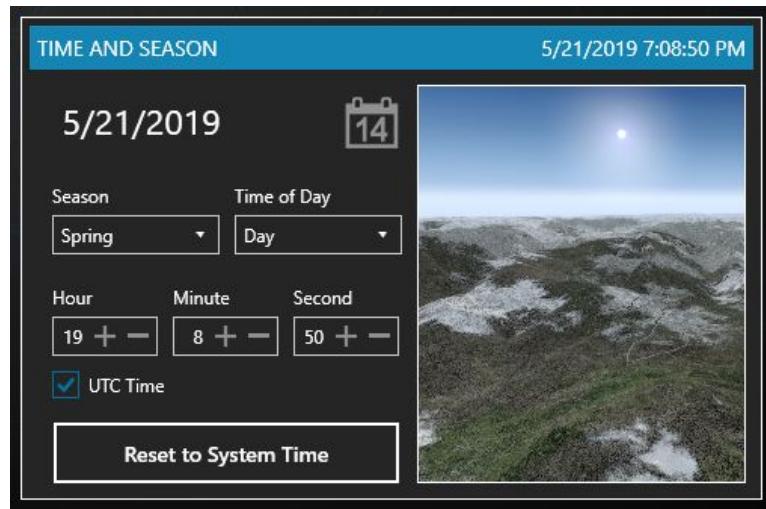
You can read the *logbook* for detailed information on the flight plans generated. A listing of the flights generated can be seen at the *Airport monitor* pages (See chapter 8).

Now you can close the **AI Live traffic** app.

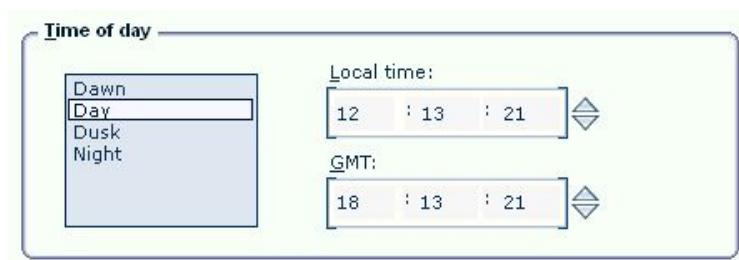
Inside your flight simulator.

When starting your flight simulator you must set the sim date and time to the **current UTC**, not local time, failure to do so will produce non realistic traffic.

All compiled flights use UTC time, not local time.



Prepar3D



In FSX use GMT time

FSX and Prepar3D do a lousy job changing between local and universal time. You must be careful to set the correct UTC time and date, otherwise your traffic won't appear correctly.

Important:

Double check your simulator time and date once your scenario has been loaded, when loading a saved flight and when changing airport location.

There are some add-ons that will handle the UTC time in your simulator and set it correctly.

Now you should see your selected airports populated with real airline traffic. Look at the flight numbers and match them with any flight tracker on the web such as Flightaware, Flightradar24, Flightstats, etc. You will be thrilled to have them matched and won't stop spotting at the airport

traffic.

8. Logbook and Monitor timetables

Every time a timetable is generated a logbook and airport monitor files are created in your *AI\LiveTraffic* directory inside your *Documents* folder. Last generated files are overwritten every time.

Logbook.

Inside the logbook you can look for a detailed report on the app behavior, it is useful to track for errors.

When running the *Aircraft Analyzer* this logbook contains a detail log of every directory found and analyzed as well all liveries found per aircraft model.

```
Livery added: SF34 | NLA | TFS_Saab_340 | FLAi_SF34_NLA-Penair | 0 |
Livery added: SF34 | LOG | TFS_Saab_340 | FLAi_SF34_LOG-Loganair | 0 |
Livery added: SF34 | SBS | TFS_Saab_340 | FLAi_SF34_SBS-Seaborne Dolphin | 0 |
Livery added: SF34 | SBS | TFS_Saab_340 | FLAi_SF34_SBS-Seaborne Horse | 0 |
Livery added: SF34 | SBS | TFS_Saab_340 | FLAi_SF34_SBS-Seaborne Octopus | 0 |
Livery added: SF34 | SBS | TFS_Saab_340 | FLAi_SF34_SBS-Seaborne Shark | 0 |
Folder found: D:\FLAI\SimObjects\Airplanes\FLAi_SH33
AI Aircraft found: D:\FLAI\SimObjects\Airplanes\FLAi_SH33\Aircraft.cfg
Livery added: SH33 | N/A | Shorts SD3-30 | FLAi_HTAI_SH33_ZZZZ | 0 |
Folder found: D:\FLAI\SimObjects\Airplanes\FLAi_SH36
AI Aircraft found: D:\FLAI\SimObjects\Airplanes\FLAi_SH36\Aircraft.cfg
Livery added: SH36 | N/A | Shorts SD3-60 | FLAi_HTAI_SH36_ZZZZ | 0 |
Folder found: D:\FLAI\SimObjects\Airplanes\FLAi_SR22
AI Aircraft found: D:\FLAI\SimObjects\Airplanes\FLAi_SR22\aircraft.cfg
Livery added: SR22 | N/A | Cirrus SR22 | FLAi_MCAI_SR22_ZZZZ | 0 | D:\FLAI\SimObjects\Airplanes\FLAi_SR22\aircraft.cfg
Folder found: D:\FLAI\SimObjects\Airplanes\FLAi_SU95
AI Aircraft found: D:\FLAI\SimObjects\Airplanes\FLAi_SU95\Aircraft.cfg
Livery added: SU95 | VIP | UTT_SSJ100 | FLAi_UTT_SU95_ZZZZ | 0 |
Livery added: SU95 | AIJ | UTT_SSJ100 | FLAi_UTT_SU95_AIJ-Interjet | 0 |
Livery added: SU95 | AFL | UTT_SSJ100 | FLAi_UTT_SU95_AFL-Aeroflot | 0 |
Folder found: D:\FLAI\SimObjects\Airplanes\FLAi_SW4
AI Aircraft found: D:\FLAI\SimObjects\Airplanes\FLAi_SW4\Aircraft.cfg
Livery added: SW4 | N/A | MetroIII | FLAi_DJC_SW4_ZZZZ | 0 |
Livery added: SW4 | N/A | MetroIII | FLAi_DJC_SW4_AMF-Ameriflight | 0 |
Folder found: D:\FLAI\SimObjects\Airplanes\FLAi_T134
AI Aircraft found: D:\FLAI\SimObjects\Airplanes\FLAi_T134\Aircraft.cfg
Livery added: T134 | VIP | Tu-134-SBAI | FLAi_SBAI_T134_ZZZZ | 0 |
Saving AILiveries_P3D4.csv
2441 liveries being saved

11005 Aircraft Analyzer completed
2441 AI liveries found.
10 AI models not recognized.
```

When generating a flight plan you can read the missing aircraft/livery list. This list contains all airliners called by the real flights and were not found in your AI Aircraft local library. Use this list to keep track of the liveries or aircraft models you need to install in your simulator to enhance realism.

```
-----  
106C03 Flight strips generated [SAN]  
  
[Liveries and/or aircraft not found at SAN]  
8: EJA|C750  
9: DPJ|C750  
11: SWA|N/A[73R]  
25: RSP|N/A[EP1]  
61: RSP|E50P
```

Monitor timetables.

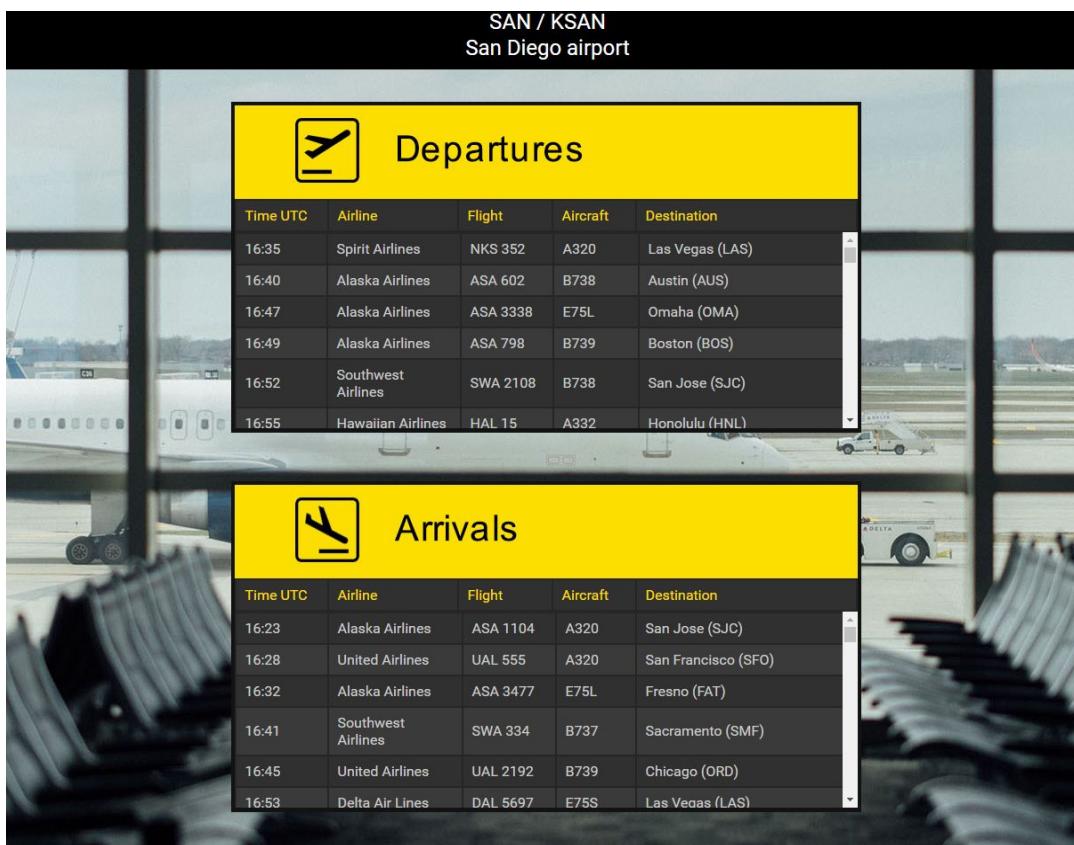
All flights generated and installed in your simulator are listed in the monitor timetables files, one for each airport specified.



You can open the monitor files after timetables have been generated or by clicking the Logbook button in the main screen.

These timetables are shown in a friendly presentation, simulating an airport monitor. Every flight listed here matches with those you will see inside the simulator.

Flights listed in red show aircraft that were not found in your AI aircraft library, they were not compiled and will not be in your simulator.



Monitor timetables

9. Demo and License mode

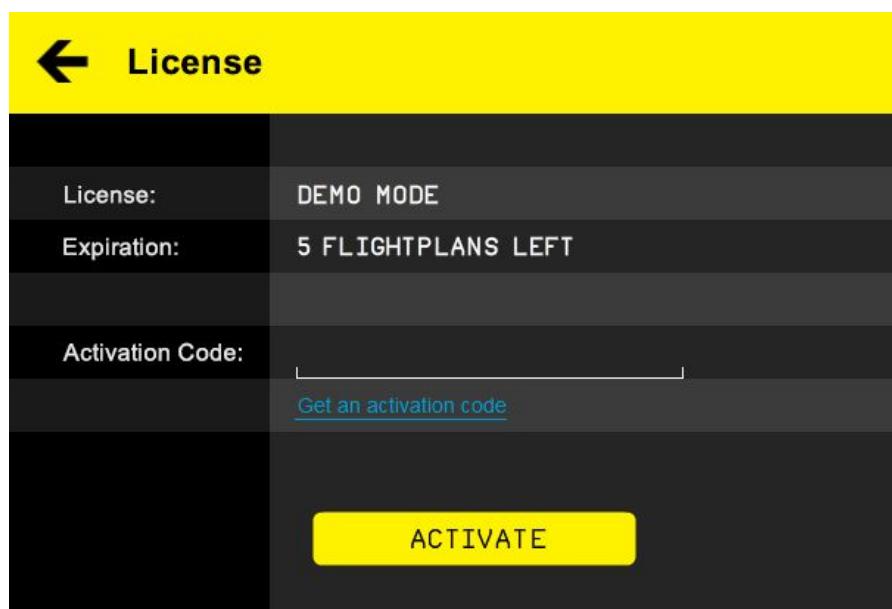
AI Live Traffic runs in *Demo mode* when first installed.

Demo mode is fully functional and will let you generate up to 5 flight plans for testing purposes with your flight simulator.

After those 5 timetables are generated you will need to purchase a license to keep using the app.

An active license let you generate unlimited flight plans (2 flight plans per hour).

Click on <Get an activation code> to buy a License via our website.



Licenses are valid for a one month period and one computer only. They can be purchased at our website <http://www.ailivetraffic.com>

License Activation.

- Once you have purchased a license your activation code will be sent by email.
- Open the *License* window by clicking on <License>.



-
- Copy and paste or type the activation code (remember to type the hyphens) and click on <Activate>.

After your code is matched with our server data your app will be unlocked instantly, you will be able to generate timetables right away.

Your 1 month period will start the moment you activate your license, not when the purchase was made.

10. Customizing your AI aircraft library

You can edit your AI aircraft library to customize liveries, usage percents, create dummy airlines and ignore liveries (Without removing).

The *Aircraft analyzer* saves your AI aircraft liveries database in CSV format (Text file with comma separated values) inside your *documents/AILiveries* folder. You can modify this files with the default windows text notepad.

There is a set of files for each flight simulator added in *Settings*, each one identified by its filename.



Clicking on the <Edit AI Library> button will show you two shortcuts to edit your libraries:

- Custom mods (*AILiveries_Mods_[Flight simulator].csv*)
- Modify AI database (*AILiveries_[Flight simulator].csv*)

Custom mods

This is the file you should modify to customize your library (*ailiveries_mods_[Flight simulator].csv*), it will remain untouched every time you run the aircraft analyzer or even uninstalling the app.

Here you can:

- Create a dummy livery.
- Override (re-assign) liveries percent.
- Turn off liveries.

You can do all these actions in the *ailiveries_[Flight simulator].csv* file, however every time you run the aircraft analyzer they will be deleted and you will have to modify it again.

Create dummy liveries.

Some regional airlines fly for large airlines, they have different ICAO codes but sometimes their flights are under its parent company code. This creates confusion as **AILT** asks for a livery which could not exist in your library.

For example: Endeavor Air flies a CRJ9 fleet for Delta Airlines. Its ICAO code is EDV however, sometimes their flights are shown under DAL code.

AILT will look for a DAL CRJ9 but this livery is not in your library, you only have the EDV CRJ9 one.

To solve this you can create a dummy livery:

Locate and copy the livery line from *A/Liveries_[Flight simulator].csv* into the *A/Liveries_mods_[Flight simulator].csv* file and modify as shown:

Original line → EDV,CRJ9,FLAi_RAI_CRJ900_EDV-Endeavor,100

Modified line → DAL,CRJ9,FLAi_RAI_CRJ900_EDV-Endeavor,100

You have created a new airline livery using an existing repaint. Your original livery will remain available in your library.

Override livery percent.

Percent number (Last value of every livery line) is used by the flight plan generator to distribute

liveries into the flights parsed.

The Aircraft generator will group liveries with the same airline and aircraft ICAO codes, then will distribute an equal percent between them. For example, if you have 3 liveries for the BAW A320, **AILT** will assign 33% use to each one.

You can manually change the percent values to re-assign its distribution:

Copy the lines of all the liveries to be modified from *ailiveries_[Flight simulator].csv* into the *ailiveries_mods_[Flight simulator].csv* file and change its percent number (last value). In this example percents are changed to 40% and 60%

```
AAL,A320,Livery_old_color,40  
AAL,A320,Livery_new_color,60
```

Original livery lines in *ailiveries_[Flight simulator].csv* will be ignored.

It can work as fleet count also. For example: if you have an airline with 20 aircraft in its fleet, 14 with the standard livery (Old colors), 4 with standard livery (New colors) and 2 with unique livery then your percent numbers should look like this:

```
AAL,A320,Livery_old_color,14  
AAL,A320,Livery_new_color,4  
AAL,A320,Livery_unique1,1  
AAL,A320,Livery_unique2,1
```

AILT will read this data as a 20 aircraft fleet and assign flights randomly but respecting the fleet count and distribution, unique liveries will be assigned just once in the entire flight plan generated.

Turn off liveries.

If you do not want the flight plan generator to use a particular livery, maybe because it is not being used in real life or your aircraft model is not compatible with your flight simulator, just copy the livery line from the *ailiveries_[Flight simulator].csv* file into the *ailiveries_mods_[Flight simulator].csv* one and set the percent number to 0 (Zero):

```
CCA,A319,FLAi_FAIB_A319CFM_CCA-Air China,0
```

Modify AI aircraft database

This is the main AI aircraft library generated by the *Aircraft analyzer (ailiveries_[Flight simulator].csv)*. It is created every time you run the *Aircraft Analyzer* and will overwrite the existing one, this is why this file is not recommended to be modified.

Important:

If you need to change data here please modify the source *aircraft.cfg* instead and run the *Aircraft Analyzer* again.

This file is separated in two sections:

1. AI liveries installed by user.

This file contains the livery information of all your AI Aircraft recognized by **AILT** in the following format (Separated by commas):

- Airline ICAO.
- Aircraft ICAO.
- Aircraft title (As it appears in the *aircraft.cfg* file)
- Usage percent

Example:

```
AAL,A320,AAL A320-200 Livery_std,100
```

2. Aircraft ICAO not recognized

AILT reads all *aircraft.cfg* files from your sim library and additional directories configured. It looks for the **atc_model** variable on each file, checks if it is a valid ICAO code and store the value.

```
[General]
atc_type=AIRBUS
atc_model=A319
editable=@
performance=
Category = airplane
```

Some modelers do not set this variable value correctly. If AILT can not match this value with a valid aircraft ICAO code then it will be ignored by the analyzer and all its liveries won't be added to your library.

```
//-----
//Aircraft ICAO not recognized
//Modify the variable ATC_MODEL inside the aircraft.cfg file for each aircraft

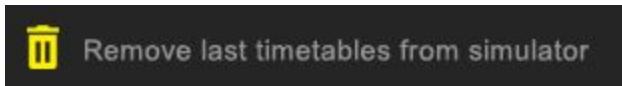
139,D:\FLAI\SimObjects\Airplanes\FLAi_A139\Aircraft.cfg
A10,D:\FLAI\SimObjects\Airplanes\FLAi_A10\aircraft.cfg
C17,D:\FLAI\SimObjects\Airplanes\FLAi_C17\Aircraft.cfg
C5,D:\FLAI\SimObjects\Airplanes\FLAi_C5\aircraft.cfg
F15,D:\FLAI\SimObjects\Airplanes\FLAi_F15D\Aircraft.cfg
F16,D:\FLAI\SimObjects\Airplanes\FLAi_F16D\aircraft.cfg
F5,D:\FLAI\SimObjects\Airplanes\FLAi_F5\Aircraft.cfg
K35R,D:\FLAI\SimObjects\Airplanes\FLAi_K35R\aircraft.cfg
MG29,D:\FLAI\SimObjects\Airplanes\FLAi_MG29\Aircraft.cfg
N/A,null
```

It is suggested for you to look at this section after running the *Aircraft Analyzer* and check the missing aircraft codes and modify them with their valid ICAO codes directly into the *aircraft.cfg* file and then run the *Aircraft Analyzer* again.

11. Removing installed timetables

After a timetable has been generated and compiled its files are installed into the flight simulator file system. They remain there even after the simulator is closed. Next time the simulator is opened and you did not generate any timetable with AI Live Traffic, your last flight plans will remain in the sim and will create fake AI traffic.

To remove this residual traffic files from your simulator click on this button inside the Settings window:



It will remove all traffic generated by AI Live Traffic.

This is useful when uninstalling or if you wish to switch to another AI add-on.

12. FAQs

Are all flights real?

We gather real world airlines data from a reliable source, all flights you will see inside your simulator will have real data attached to them: origin, destination, flight number, ETD, ETA and equipment type.

How can I know if flights are exactly as in real life?

When a flight plan is generated, a timetable html file is created in your documents folder, you can compare this information with flight trackers in the web such as Flightaware, FlightRadar24, Flight Stats, etc. You will be surprised when comparing!

Are aircraft injected in real time?

AILT does not inject traffic into the simulator, it compiles and install the traffic files as BGL to be used by the simulator when started.

Aircraft registration (tail number) can be retrieved from source data?

At this time the source data does not include this information.

What airports does AILT cover?

All medium to large airports in the world are covered by AILT. Small airports data depends on the airlines serving them, many small local airlines do not send their flight data to the network used as source by AILT.

How many time before my flight should I generate a flight plan in AILT?

Recommended time is within 30 to 60 minutes before your depart time for most accuracy.

Can I use the default FSX/P3D aircraft with AILT?

Only AI aircraft can be detected by AILT as long as it has the right information in its aircraft.cfg file. It

is not recommended to use non AI optimized aircraft because of the performance hit you will have.

How can an aircraft be configured to be used by AILT?

AILT needs to add the aircraft and airline ICAO codes to the user library. This information must be setup in the *aircraft.cfg* file. Variables used are *ramp_code* and *atc_model*. For more information contact support.

Do I need to install all the world airlines liveries to use AILT?

You can start with one airline at a time, AILT will compile only the flights for the airlines and aircraft type you have installed. However there are free and payware packages that will help you to start with a lots of airlines.

Where can I find AI optimized aircraft to install in my simulator?

Go to our website <http://www.ailivetraffic.com> and look for the *AI Aircraft resources* page, there you will find many links for free and payware packages.

Does AILT need to be running while using FSX/P3D?

No, once flight plans are generated and installed the app can be closed and the flight simulator could be started.

YOUR FLIGHT SIMULATOR MUST BE CLOSED WHEN USING THE AILT APP.

13. Known issues

- You must set the actual UTC time in your simulator and double check when the scenario has been loaded, so the traffic could be seen as in real life. FSX and P3D have a bug handling UTC times, they get confused with local time zones.
- **AILT** generated flights uses the default FSX/P3D AI traffic engine, so all aircraft will inherit the ESP engine limitations and behavior.
- Raw source data sometimes has wrong information about the flight number and equipment. For example an aircraft could be listed as an AT72 as it lands and will be programmed as an AT42 when departing, if this happens **AILT** can not match turnarounds and will generate 2 flights (2 aircraft) instead of a single one.
- Raw source data does not have the 100% of flights at any airport. There will be a percent of airline flights missing (8% at most).
- General aviation flights rarely appears within the source raw data.
- Some flights are not published by airlines until a few hours before departure, flight plans generated with more than 2 hours of anticipation will not be as accurate as those generated within one hour from the departure time.
- Estimated departure time is the approximate push back time, but real life is way too chaotic and can not be matched exactly within the simulator.
- Because of the faulty default AI aircraft behavior, crowded airports will have many go arounds so arrival time at gate of many flights will be offset from reality.
- Do not use the default airport ground vehicles. FSX/P3D engine is broken, it will cause a complete halt of more than 50% of the aircraft, they will remain stuck at the ramp.
- When flying into airports other than the selected ones when generating the **AILT** flight plans will result in inaccurate traffic at those stations.
- When flying outside the hours you set when generating your flight plans (Within the time margin discussed in section 7 in the user manual) you will see only static traffic parked at your airport and occasionally an aircraft landing or taking off but with no real data at all.

-
- **AILT** will not remove user installed AI flight plans, you must remove or deactivate any if installed in your simulator, otherwise your real traffic generated by AILT will be mixed with the fake pre-installed traffic.