



# TRAFFIC GLOBAL

**OPERATIONS MANUAL**

*Just Flight*

# *More X-Plane 11 aircraft from Just Flight*



*Robin DR400*



*PA-28-181 Archer TX/LX*



*PA-38 Tomahawk*



*Duchess Model 76*



*PA-28-181 Archer III*



*Hawk T1/A Advanced Trainer*



*C152*



*PA-28R Turbo Arrow III/IV*

**Just Flight**<sup>™</sup>

[www.justflight.com](http://www.justflight.com)



## Operations Manual

Please note that X-Plane 11 must be correctly installed on your computer prior to the installation and use of this Traffic Global software. Traffic Global is compatible with X-Plane 11.41r1 and 11.50 in both OpenGL and Vulkan mode, on Windows and Mac.

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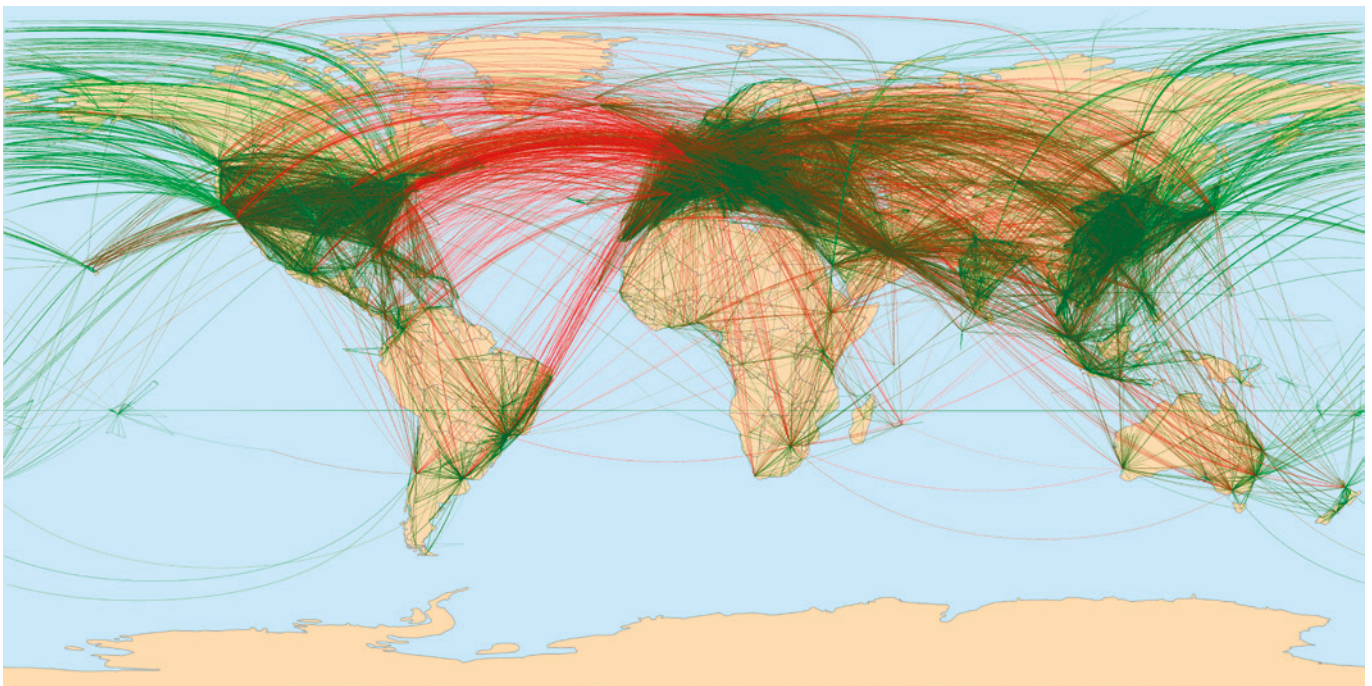
# INTRODUCTION

X-Plane does a remarkable job of simulating the aircraft you fly and the general environment, but the presence and behaviour of other aircraft could certainly stand a little improvement. Traffic Global is here to add that improvement.

Real-world airline schedules have been used to provide a set of realistic flights in and out of most major airports around the world. These are matched with hundreds of lightweight, non-flyable aircraft models to show appropriate airlines operating, while not bogging X-Plane down with unnecessary detail.

The purpose is to make the airport environments feel much busier in a believable way – not recreating the exact location of real-world aircraft in real time, but making airport activity feel both appropriate and engaging.

Traffic Global integrates with SAM (Scenery Animation Manager) and ActiveSky XP if they are installed, without additional configuration, and provides an API for other programmers.



*Flight routes provided with Traffic Global*

# INSTALLATION, UPDATES AND SUPPORT

## Installation

### Windows

To install Traffic Global, simply run the installation program. This will automatically find the location of your X-Plane installation, but you will have the chance to change the location if you wish. It does, however, need to be installed into your X-Plane base directory so please make sure the correct location is used. The base directory is the one containing 'X-Plane.exe'.

The installer will add all the required aircraft models, the required X-Plane plugin and its necessary data files, and this manual. Microsoft runtime components are also installed.

If you want to use Traffic Global with more than one copy of X-Plane on the same PC, copy the "Aircraft/Traffic Global" and "Resources/plugins/Traffic Global" folders from the existing installed copy to the second X-Plane installation using Windows Explorer. This second copy will not be automatically updated or removed by the installer.

### Mac

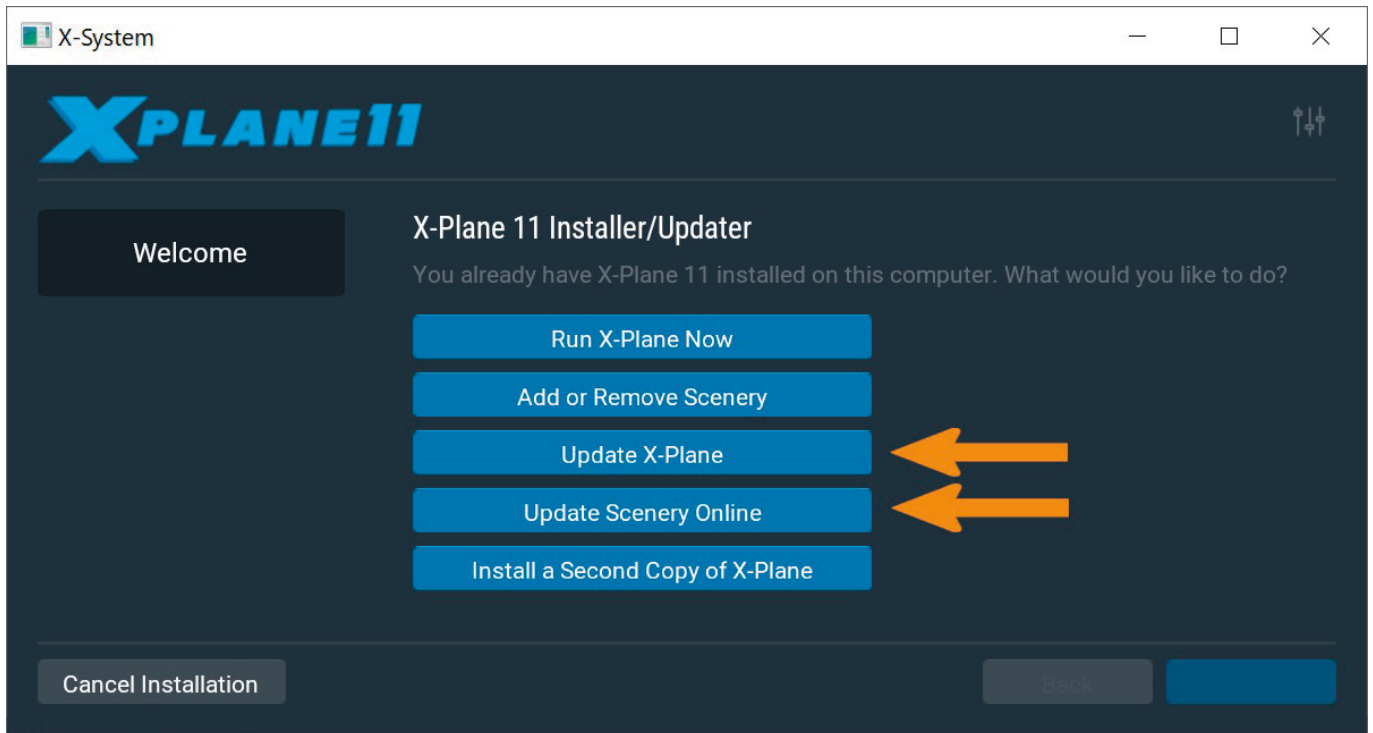
Use the MacOS Finder to open the zip file that you downloaded. This will create two folders called "Aircraft" and "Resources". Remove any existing "Traffic Global" aircraft folder that exists under "Aircraft", since the names of the provided aircraft occasionally change.

Drag the two new folders into your X-Plane folder; there will already be two folders with the same name. The existing contents of these folders will not be removed.

The plugin is both signed and notarised as required for use on MacOS Catalina.

### After installing

Please make sure you update X-Plane to the latest available version, using the 'X-Plane 11 Installer'. Also, be sure to try the 'Update Scenery Online' option; this will often update more files than the normal 'Update X-Plane' option does, and having the latest scenery installed will make sure that the airport definitions which are very important to Traffic Global are the best available. This step will not remove any custom scenery.



No additional steps are required. The next time you start X-Plane, simply start a new flight as usual and Traffic Global will appear on the 'Plugins' menu once the simulation has fully started. There is no need to download separate aircraft models, schedules or special configuration for individual airports.

## Licence keys

The first time you run X-Plane after installing Traffic Global, you will be asked to enter the licence key you received when you purchased the software. Please copy and paste this key into the licensing dialog. Traffic Global will then verify the licence with Just Flight's servers and unlock your installation for you.

You can install Traffic Global as often as you like on the same computer system:

1. Click on the '[Account](#)' tab on the Just Flight website.
2. Log in to your account.
3. Select the 'Your Orders' button.
4. A list of your purchases will appear and you can then download the software you require.

If your licence code is used to activate too many copies of Traffic Global (if you use Traffic Global on several computers, for example, or have reinstalled your operating system) and your activation is refused, please contact Just Flight [Support](#) for instructions. A different licence is required for the Windows version and the Mac version of Traffic Global.

## Data Privacy

Just Flight will store your IP address and an anonymous computer fingerprint with each activation. The email address and licence code you provide will be used to verify that the details you enter match those from the purchase of the product.

# Uninstalling

## Windows

To uninstall this product from your system, select the appropriate option for your version of Windows from the Control Panel:

- 'Add or Remove Programs' (Windows XP)
- 'Programs and Features' (Windows Vista or 7)
- 'Apps & features' (Windows 10 or later)

Select 'Traffic Global for X-Plane', select the 'Uninstall' option and follow the on-screen instructions to uninstall the product.

*Uninstalling or deleting this software in any other way may cause problems when using this product in the future or with your Windows set-up.*

## Mac

Using the MacOS Finder, remove the following two folders from your X-Plane installation:

- Aircraft/Traffic Global
- Resources/plugins/Traffic Global

# Updates and Technical Support

For technical support (in English) please visit the [Support](#) pages on the Just Flight website.

As a Just Flight customer, you can obtain free technical support for any Just Flight or Just Trains product.

If an update becomes available for this software, we will post details on the Support page and we will also send a notification email about the update to all buyers who are currently subscribed to our Newsletter and emails.

# Regular News

To get all the latest news about Just Flight products, special offers and projects in development, [subscribe](#) to our regular emails.

We can assure you that none of your details will ever be sold or passed on to any third party and you can, of course, unsubscribe from this service at any time.

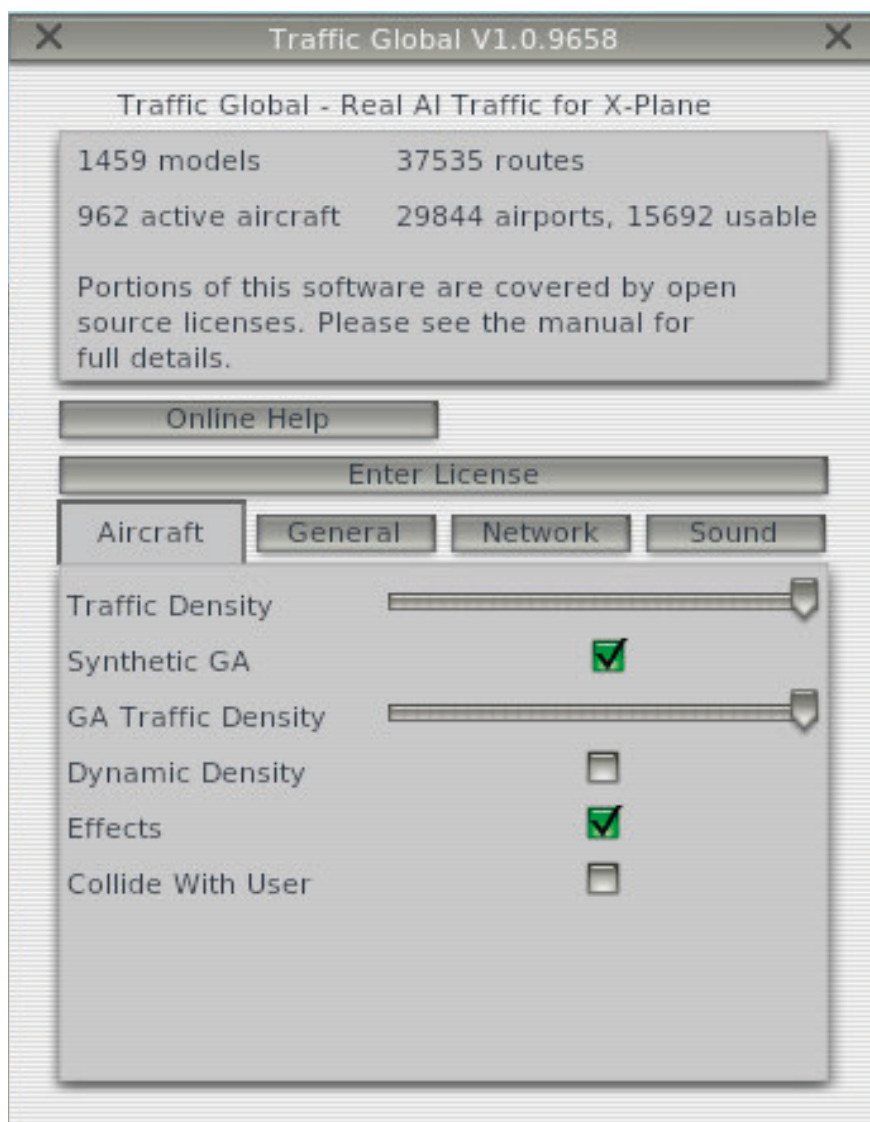
You can also keep up to date with Just Flight via [Facebook](#) and [Twitter](#).



# SETTINGS

To open the Settings window, open the Plugins menu after the simulator has started. Select the 'Traffic Global' sub-menu item and then click on the 'Settings' item.

## Aircraft settings



### Traffic Density

This controls how much traffic is generated, as a percentage. Changes happen in real time; there is no need to restart the simulator. Note that individual airports can still be very busy even with this setting reduced.

### Synthetic GA

Choose whether to create GA flights at all.

## GA Traffic Density

This controls how much GA traffic is controlled, as a percentage. Changes happen in real time; there is no need to restart the simulator.

## Dynamic Density

When this is switched on, the level of AI traffic will be continually monitored and, if necessary, reduced if your PC's processor is not able to maintain all the active traffic.

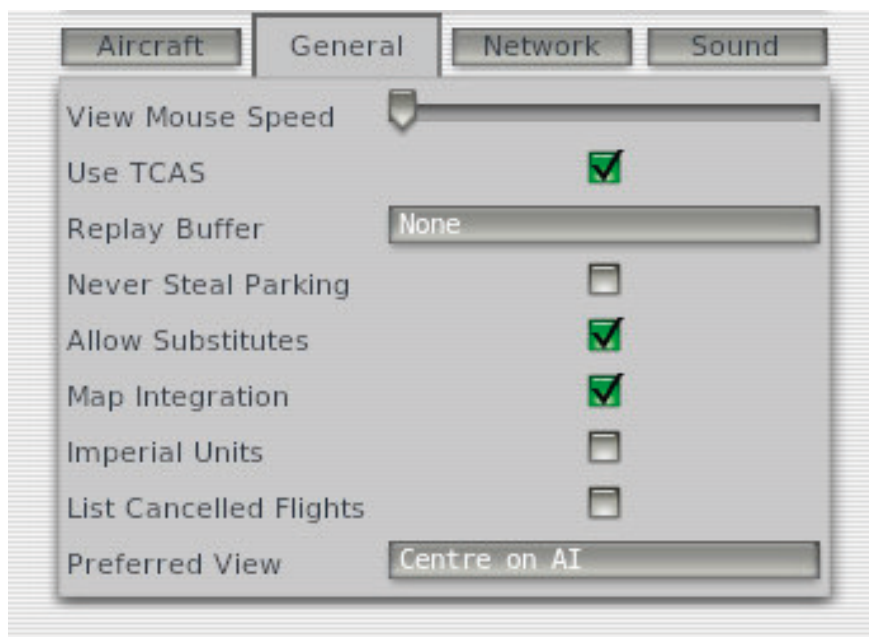
## Effects

Most aircraft models will use several particle effects for features such as engine exhaust and touchdown tyre smoke. You can disable these with this control if you wish to do so.

## Collide With User

If you, the simulator pilot, collide with an AI aircraft, your own aircraft will normally have several types of severe damage applied and the view will switch to an external view showing both you and the aircraft you collided with. If you prefer not to deal with collisions, you can disable this behaviour here.

# General settings



## View Mouse Speed

Most of the new views added by Traffic Global can be controlled using the mouse. This setting controls the mouse sensitivity when dragging views around.

## Use TCAS

Makes a number (currently either 19 or 63 depending on the version of X-Plane) of AI aircraft show up on aircraft cockpit radar or external traffic monitoring systems. See the [TCAS SET-UP](#) section below for more details.

## RELEASE AIRCRAFT Disables

Since X-Plane 11.50, a plugin can request that another plugin which is controlling TCAS should stop doing so. Traffic Global fully supports this "RELEASE AIRCRAFT" message. This switch makes Traffic Global go one step further and fully disable itself, instead of just releasing the TCAS system.

## Replay Buffer

Choose how much system RAM to allow Traffic Global's replay system to use. If you never use X-Plane's replay feature, you are advised to leave this set to 'None'.

## Never Steal Parking

If the only parking left at a given airport is reserved for a specific airline, and a different airline's aircraft is unable to park because no other parking is available, it will normally be parked in any available spot. If you prefer to reduce the overall traffic levels in favour of having reserved parking used exclusively by the airline which owns it, you can set that here.

## Allow Substitutes

The traffic database file is based on real-world traffic and includes as many flights as possible. In some cases no exact match exists in the provided models, either for the aircraft type or the airline livery. Traffic Global will substitute the nearest equivalent aircraft but in many cases this will be an unpainted version. If you don't want to see unpainted aircraft, you can disable them here.

## Map Integration

Traffic Global adds two new layers to the standard X-Plane Map and Instructor interfaces, showing the location of parked and active AI. These are unavoidably switched on by default if they are present. If you prefer not to have these layers at all, you can disable them here. Please see the [MAP ENHANCEMENTS](#) section for more details.

## Imperial Units

Some labels and other items show short-range distances and altitudes. You can choose whether these are shown in feet or meters.

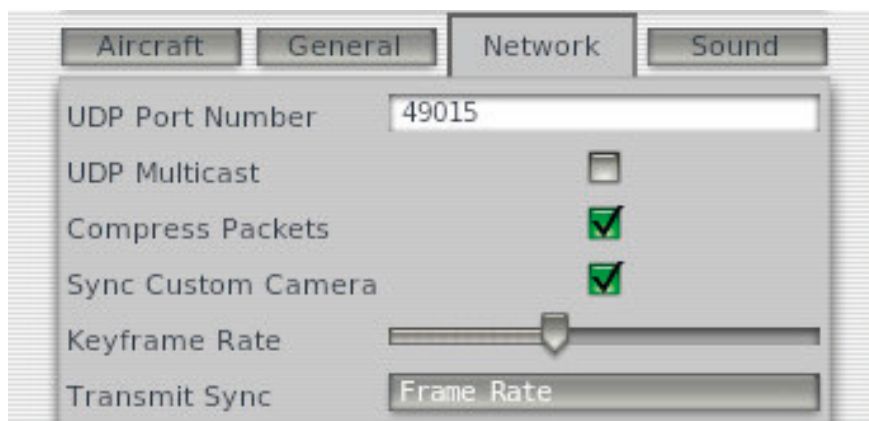
## List Cancelled Flights

Individual flights can be cancelled for a number of reasons, most often over-use of parking at an airport on their route. If a flight is unable to operate, this switch controls whether it appears as cancelled on the Flight Board display, or doesn't appear at all.

## Preferred View

In the Radar, Flight Routes and Departure Board displays, you can click on an aircraft and have the simulator switch to a view that shows that aircraft. This control allows you to choose which view is used by default.

## Network settings



All network settings except the port number are disabled if this computer is running as an "external graphics" display, because they only affect the transmission of data.

## UDP Port Number

If you are driving external computers across a network, you can override the UDP port used for communications. Normally this is not needed. Please make sure that the UDP port matches across all networked PCs if you do change this, and that you have opened this port on any relevant firewalls or networking equipment.

## UDP Multicast

Normally the network data will be sent individually to each external display PC. You can choose to use Multicast instead, which sends only one copy of the data. This can reduce network traffic if you use more than one external PC, but Multicast may not work depending on your specific network. See the [NETWORKED OPERATION](#) section for more information.

## Compress Packets

Enabling this will reduce the amount of network traffic by compressing the data being sent at the cost of a small amount of CPU time. Whether or not this slows X-Plane down depends on the number of CPU threads available.

## Sync Custom Camera

X-Plane does not transmit camera data across the network for non-standard cameras, such as those provided by Traffic Global. Enable this option to allow custom cameras to function correctly on external graphics PCs in a multi-PC setup.

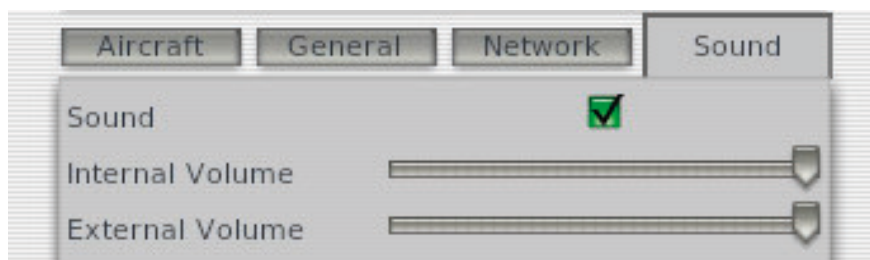
## Keyframe Rate

This affects how often the full aircraft definition, rather than per-frame differences, are sent over the network. Normally this should not need to be changed.

## Transmit Sync

This affects the exact timing for when AI locations are transmitted to external graphics PCs. Choose whichever option gives the smoothest appearance.

# Sound settings



## Sound

Use this if you want to keep the normal X-Plane sounds working, but not the Traffic Global sounds.

## Internal Volume

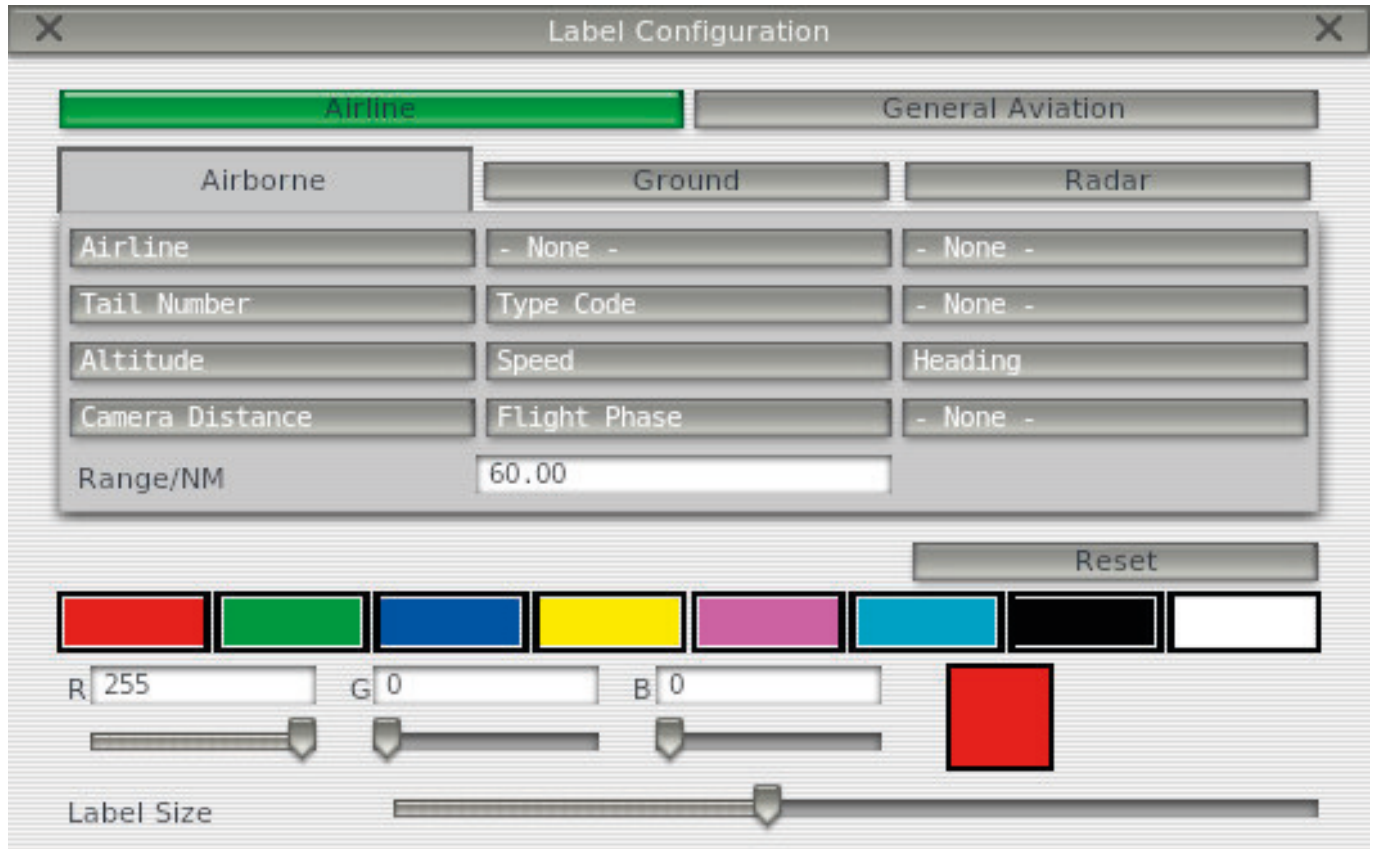
Adjusts the level of sound for internal views, to simulate differences in acoustic transmission between small and large aircraft.

## External Volume

Adjusts the level of sound for external views, for those who like their jet engines to be more subtle.

# LABELS

Traffic Global adds optional labels to aircraft which can be toggled on or off using a hotkey (default [Insert]). There are different types of label depending on what the aircraft is doing. Each label type can be configured using the Label Configuration dialog, on the plugin menu.



Each label type has twelve selectable options in four rows of three elements. You can choose as many options as you like and the on-screen label will show the relevant information.

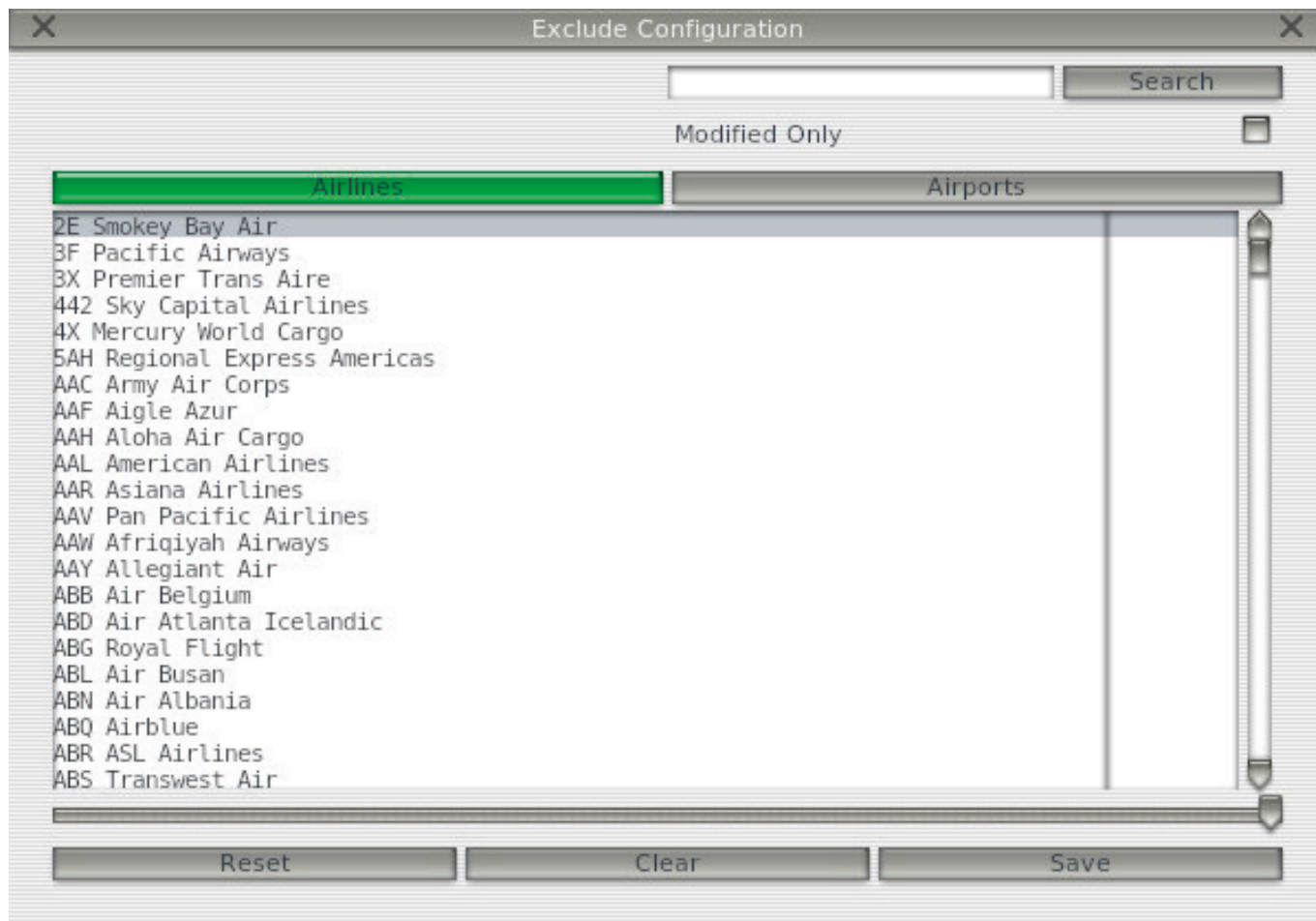
For Airborne and Ground labels, you can set the maximum range at which the labels will be shown. They will fade as they approach the maximum range.

Label colours and size can also be chosen, and the text scales according to X-Plane's own 'UI Font Size' setting. Please note that labels are not currently shown in VR mode.

Labels can be configured differently for GA and scheduled aircraft.

# EXCLUDES

You can reduce or completely exclude traffic for specific airlines or airports using the Exclude Configuration dialog.



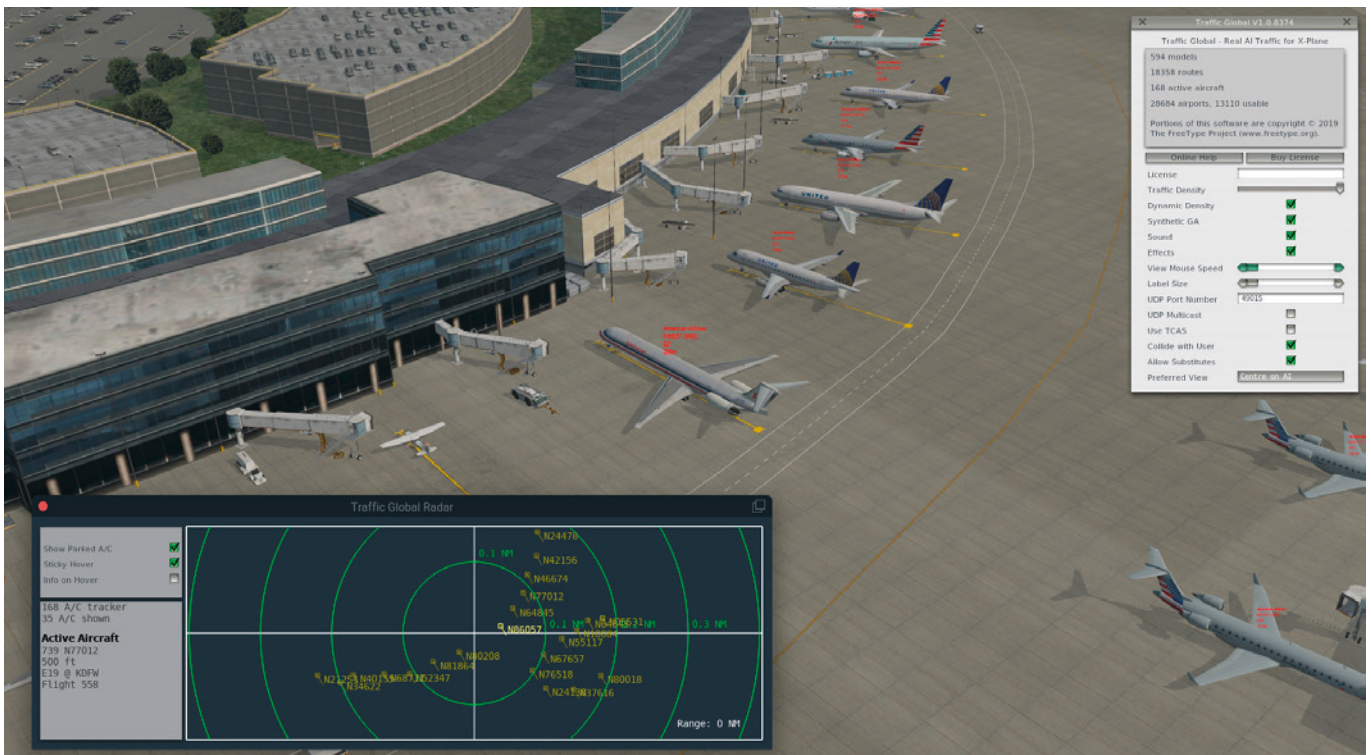
Use the slider at the bottom of the dialog to control how much traffic relative to the current traffic density setting to allow for the chosen airport or airline.

When choosing an airport, you need to search before any are listed, if “Modified Only” is not ticked, otherwise there would be tens of thousands of airports listed. The search works for both airport name and ICAO code.

# VIEW HOTKEYS

Several new hotkeys have been added for controlling views. These can all be configured in the standard X-Plane keyboard assignments window. Where hotkeys are referenced in this manual, the default value is used.

Camera centred on an AI aircraft	Ctrl + F2
Camera following an AI aircraft	Ctrl + F7
Camera centred on an AI aircraft, looking at the player	Ctrl + F3
Camera centred on the nearest airport	Ctrl + F6
Camera centred on the nearest airport, looking at an AI aircraft	Ctrl + F5
Select the next airport for airport-to-aircraft camera	Page Up
Select the next runway at the current airport for runway-to-aircraft camera	Shift + Ctrl + Page Up
Camera centred on the player, looking at an AI aircraft	Ctrl + F4
Select the previous airport for airport-to-aircraft camera	Page Down
Select the previous runway at the current airport for runway-to-aircraft camera	Shift + Ctrl + Page Down
Reset view orientation to default	Home
Reset stored tower offset	Shift + Home
Camera centred on one end of a nearby runway, looking at an AI aircraft	Shift + Ctrl + F5



If you are using custom external views, you can select the current aircraft of interest – the one that the view centers on – using a key combination of Shift+Ctrl and clicking on any AI aircraft with your mouse. The label above the current active aircraft will be shown in slightly larger text. X-Plane’s normal hotkeys for selecting next or previous aircraft can also be used.

It is possible to forcibly remove individual aircraft from the simulator by making them active, either using the click method above or by selecting them from the radar or departure board windows, and pressing [Ctrl]+[Delete]. This can be useful if two aircraft are blocking each other and not solving the problem for themselves.

# ADVANCED OPTIONS

There are some advanced configuration options which, for now at least, are only accessible by changing files. These are all found in the plugin's main directory under 'X-Plane/Resources/plugins/Traffic Global'.

## **config.ini**

This is the normal configuration file. All options in here are available in the in-sim Settings window.

## **ViewpointOverrides.csv**

This file manages airport tower location overrides and is automatically updated by the sim.

# NEW VIEW MODES

Several new views are added by Traffic Global to help you see nearby traffic.

## **Centre on AI aircraft**

This view centres on the selected AI aircraft, with a fixed direction relative to the world.

## **Following an AI aircraft**

This also centres on the selected AI aircraft but is aligned relative to the aircraft, initially following it.

## **Look from an AI aircraft towards the pilot**

Make sure that both the selected AI aircraft and the pilot's aircraft are in view, with the AI aircraft closest to the camera.

## **Look from the pilot towards an AI aircraft**

Make sure that both the selected AI aircraft and the pilot's aircraft are in view, with the pilot's aircraft closest to the camera.

## **Look from a nearby airport towards an AI aircraft**

Using the selected airport's viewpoint, look directly towards the selected AI aircraft.



### Free-view from a nearby airport

Positioned at the selected airport's viewpoint, with no specific target.



### Look from one end of a runway of a nearby airport towards an AI aircraft

Using one end of the runway, look directly towards the selected AI.

You can cycle through all nearby aircraft using the standard X-Plane hotkeys Ctrl+[ and Ctrl+], and through nearby airports using Page Up and Page Down. If you are in a runway-end view, you can go to a different runway end using Shift+Ctrl+Page Up or Page Down.

For views which allow it, you can move and rotate the view using the mouse. To rotate, hold down the right mouse button. To move the view's location, hold the Alt key and the left mouse button. Also, standard X-Plane commands for zoom, move and rotate, and next/previous AI aircraft can be used.

If you are in a view that follows a specific AI aircraft and you select another from the Radar or Departure Board windows, the current view type is not changed. For example, if you are using the tower-to-AI view, selecting a new target aircraft will not change the view to the default AI view.

You can select an AI aircraft to focus on by holding down the Shift and Ctrl keys and clicking anywhere on the main display. The view is not automatically changed, but if you are already watching a specific aircraft, the view will start following the one you click on. If there is any doubt as to which one you chose (the centre of the aircraft is used as the reference point) the nearest is chosen.

When you switch to a runway-end view, if you are already focused on an AI aircraft the first view selected will be the one most appropriate for that aircraft. For example, if the aircraft is on final approach, the first runway-end view chosen will be the closest end of the runway on which the aircraft will land.

Note that there is currently a bug in X-Plane, including version 11.50, which means that custom cameras do not work correctly in VR.

# NEW DISPLAYS

Three new displays are provided as part of Traffic Global. They can be detached from the normal X-Plane window and exist as independent windows which be positioned on any monitor.

## Radar

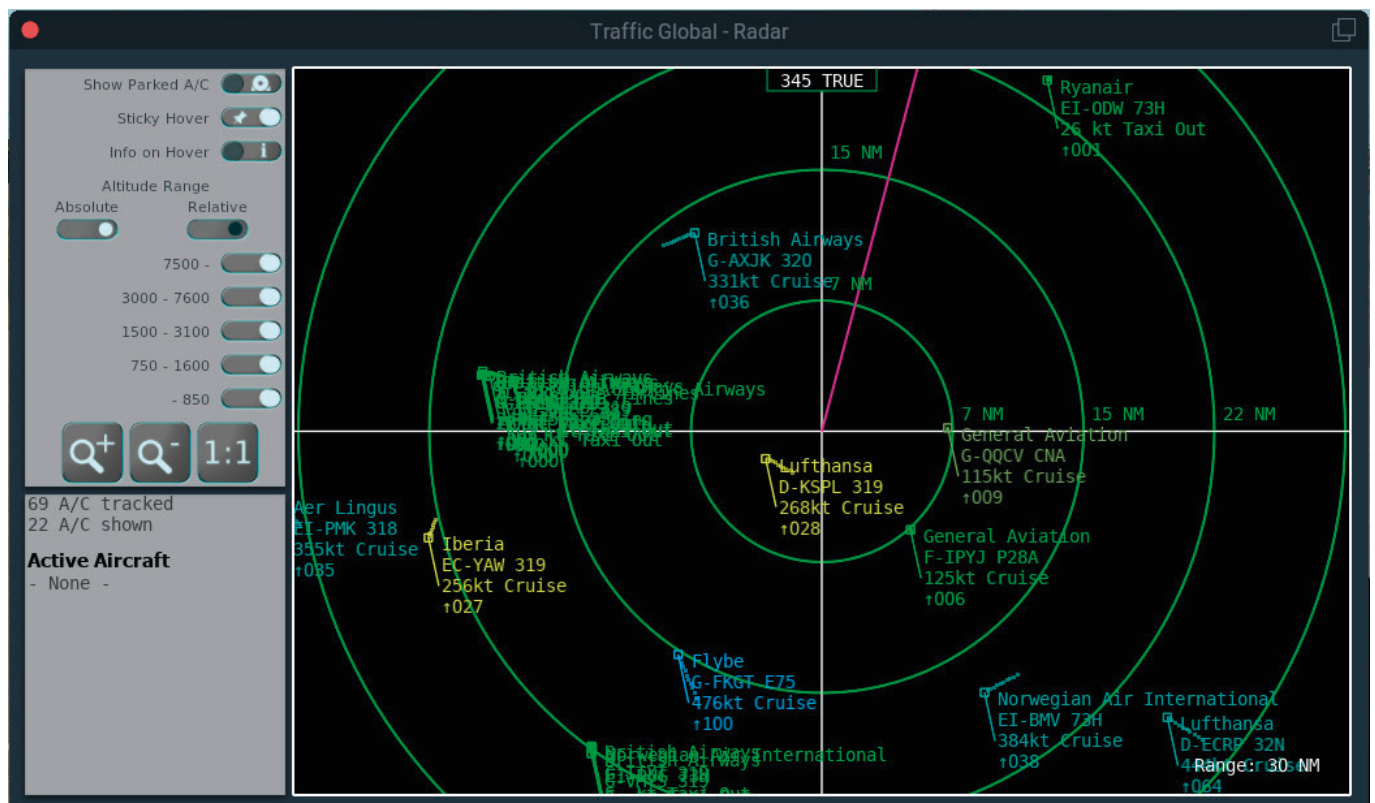
The Radar display (default hotkey [Ctrl]+[F9]) shows a typical radar screen, centred on the pilot's current location and oriented forward-up, showing all nearby AI aircraft. A purple line shows the direction of north.

A panel to the left of the radar display lets you choose whether or not to display aircraft on the ground, and controls when aircraft-specific information is shown in the lower part of the panel. The panel can be switched between hidden, visible and auto-hidden using the [Tab] key.

There are also controls to choose which altitude ranges the radar shows, to allow you to limit the number of aircraft shown, and also whether the range is relative to your current altitude or mean sea level. Buttons are also provided for zoom control, mainly for VR users.

Clicking on a particular aircraft in the Radar display will open the default AI external view, focused on that aircraft. The standard X-Plane [+] and [-] zoom keys zoom in and out and the view always centres automatically on the aircraft you are flying.

The current heading is shown at the top of the radar display and can be switched between degrees true and magnetic by clicking on it.



# Flight Schedule

The flight Schedule (default hotkey Ctrl+F11) opens a new window showing all flights arriving at and departing from the currently selected airport for the current day. Only airports near the pilot will be available in this window; to review flights at airports further away, reposition your aircraft.

Any flights that have been cancelled will appear on this display with a red line drawn through them, with a reason for the cancellation. This option can be turned off in the Settings dialog.

Local time is calculated in the same way that X-Plane does – ignoring DST but allowing a manual offset. Local times should in almost all cases match the time reported by X-Plane.

You can cycle between nearby airports using the [ and ] hotkeys. There are also options to limit the type of flights listed – arrivals, departures, both, and unscheduled (GA) aircraft.

Time	Flight	Airport	Gate	Type ID	Airline
↗ 11:34	000001	John F Kennedy Intl	Stand 14	319 G-SDXD	British Airways
↘ 11:35	008721	Glasgow		E90 G-EIRV	British Airways
↘ 11:40	001335	Edinburgh		DH4 G-RMSO	Flybe
↘ 11:45	008474	Malaga		E90 G-IMDL	British Airways
↘ 11:50	007311	Manchester Intl		E90 G-GLOD	British Airways
↘ 11:55	003294	Muenchen Franz-Josef-Strauss		E90 G-KUHO	British Airways
↘ 12:00	000284	Dublin		AR8 EI-XXQ	Aer Lingus
↘ 12:05	008470	Ibiza		E90 G-DUCK	British Airways
↗ 12:09	008487	London City		E90 G-EIRV	British Airways
↗ 12:09	001336	Manchester Intl		DH4 G-RMSO	Flybe
↘ 12:10	004465	Dublin		E90 G-LSHD	British Airways
↘ 12:15	000971	Schiphol		E90 PH-MRD	KLM Royal Dutch Airlines
↗ 12:19	008461	London City		E90 G-GLOD	British Airways
↘ 12:25	000226	Milano Malpensa		E90 I-CLPJ	Alitalia
↗ 12:25	004455	London City	Stand 7	E90 G-TLDM	British Airways
↗ 12:29	000285	London City		AR8 EI-XXQ	Aer Lingus
↘ 12:40	000456	Zurich		E90 HB-MBO	Swiss International Air Line
↘ 12:45	008711	Edinburgh		E90 G-FATS	British Airways
↗ 12:45	000972	Stuttgart		E90 PH-MRD	KLM Royal Dutch Airlines
↗ 12:49	008467	London City		E90 G-KUHO	British Airways
↗ 12:49	003293	London City		E90 G-DUCK	British Airways
↗ 12:54	000227	London City		E90 I-CLPJ	Alitalia
↘ 13:00	001342	Porto		E90 CR-CBF	TAP Portugal

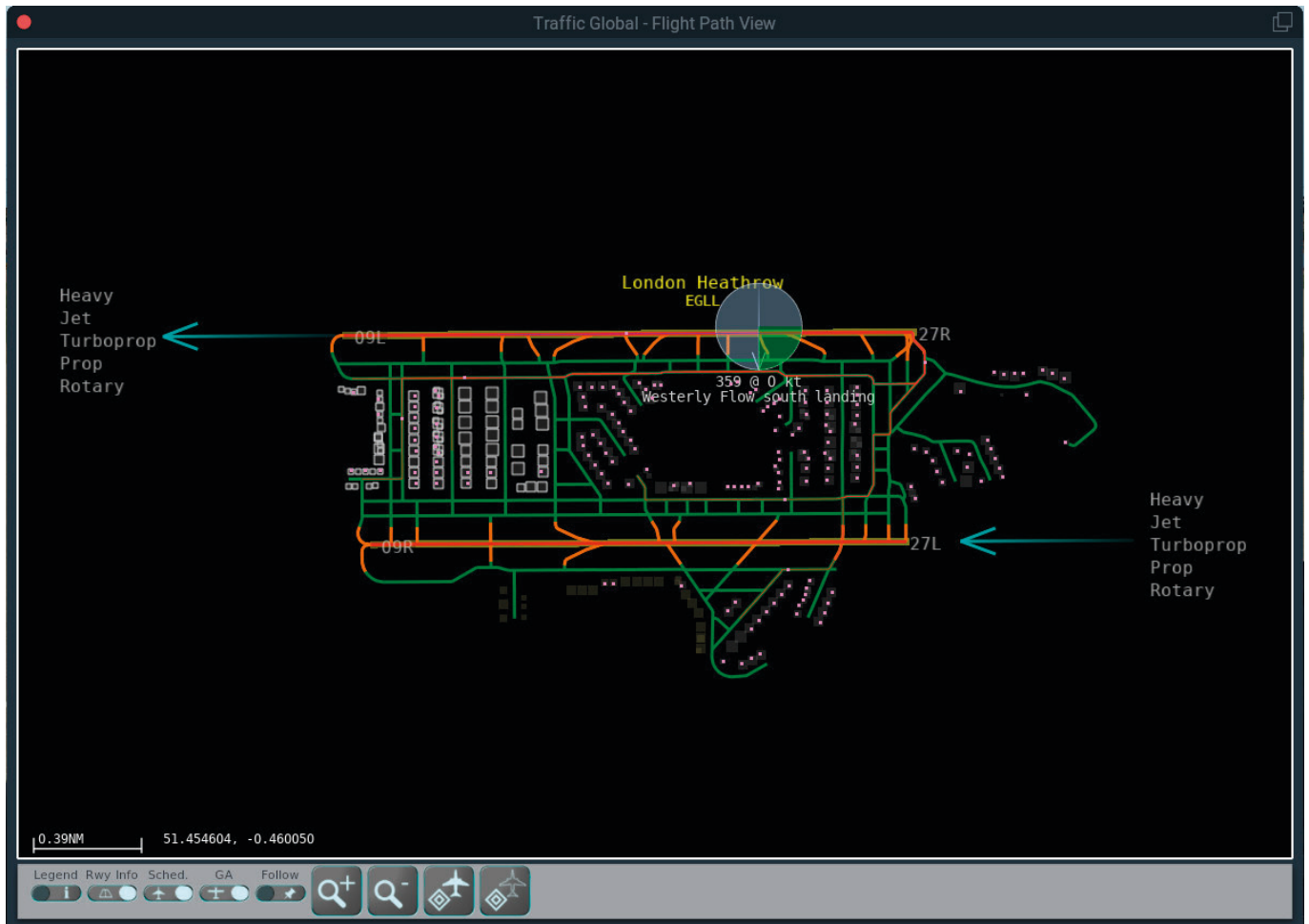
The symbol in the first column shows whether the aircraft is arriving (↘) or departing (↗).

The second column shows whether the aircraft is near enough to be present in the simulator (↗).

It is possible for parked aircraft appearing in the simulator to not be listed in the schedule for that airport, or to be listed once only for arrival or departure, because the default schedules cover a full week and not a single day. Any aircraft parked overnight may have only one, or no, entries on any specific day's schedule.

## Flight Path View

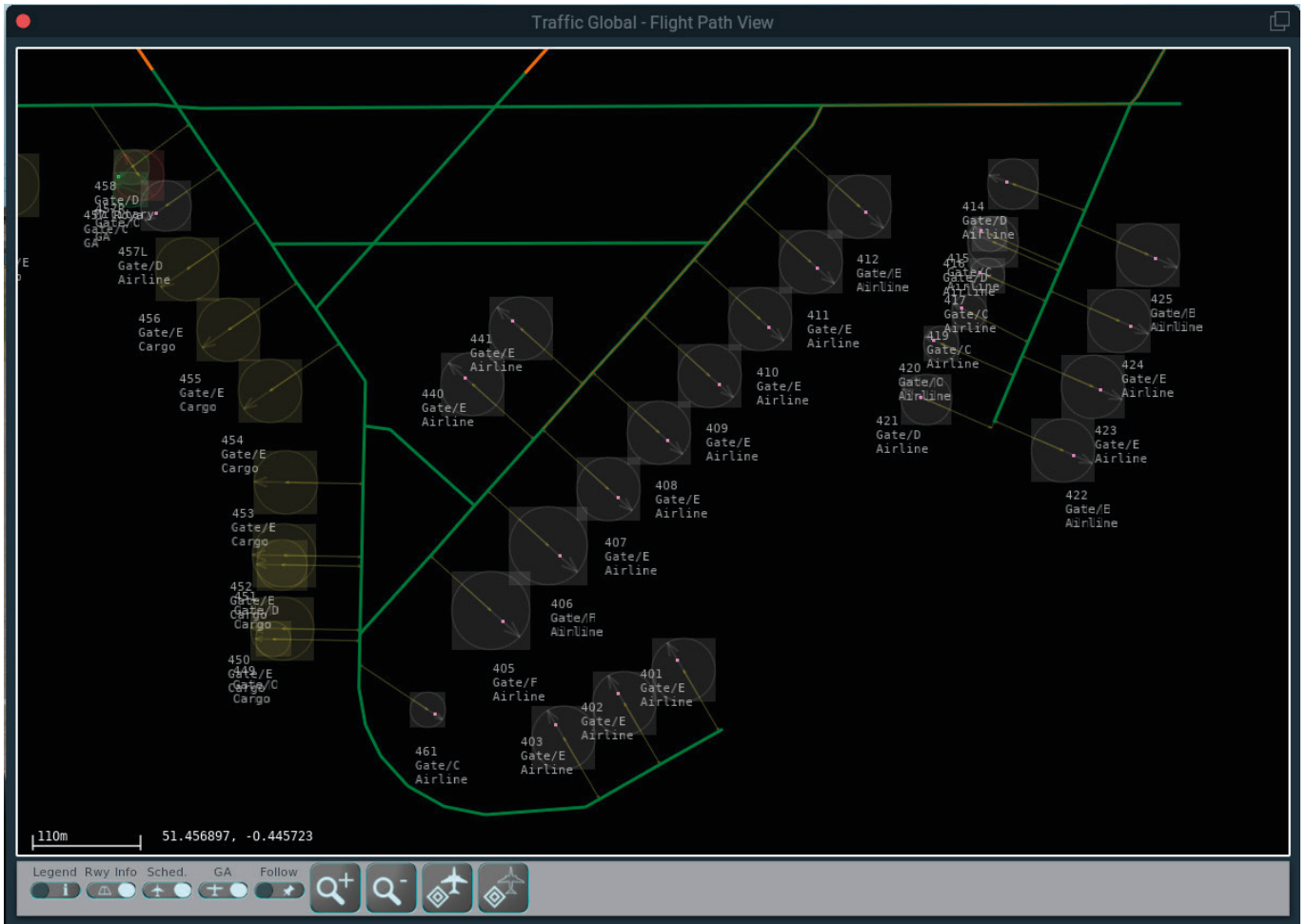
This view shows a simple, top-down view of the area around your current location, with extensive information about nearby aircraft and airports. Clicking on any of the aircraft will go to a view showing that aircraft. This window can be opened using Ctrl+F1 (Windows) or Option+F1 (Mac).



Some special keys are available for use on this display. Press Home to centre the display on the pilot's location, or Shift+Home to centre it on any AI aircraft that is currently the focus of the main display. The cursor keys move the display around and the standard X-Plane [+] and [-] zoom keys zoom in and out. You can also use the mouse to drag the view, and the mouse wheel to zoom. Pressing End will make the display follow the user's current location. All these keys can be optionally shown by pressing F1.

Each airport also shows a wind direction indicator, showing arrows for the current and recent average wind directions, the name of the current flow, the heading range for the current flow and whether or not the flow is changing. More details are given on the section on [AIRPORT RUNWAY FLOWS](#). All active runways will be marked with a large arrow, and labelled with the types of aircraft that may use that runway. This information can be hidden using the F2 key.

As you zoom in closer, airports will show parking slots and, when you are even closer, information about each individual slot. This information can be useful if you want to see why a particular airport does not have as much traffic as you expected, or why a particular parking spot has been used.



The colour of the airport name shows whether an airport is a real X-Plane 11 airport or whether it is an X-Plane 10 airport which has had its taxi routes auto-generated by Traffic Global. Darker names show the X-Plane 10 airports. In the screenshots below, Chicago O'Hare is a genuine X-Plane 11 airport and Schaumburg Rgnl is from X-Plane 10. This directly and strongly affects the quality of the taxi routing – see the [TROUBLESHOOTING](#) section for more details.



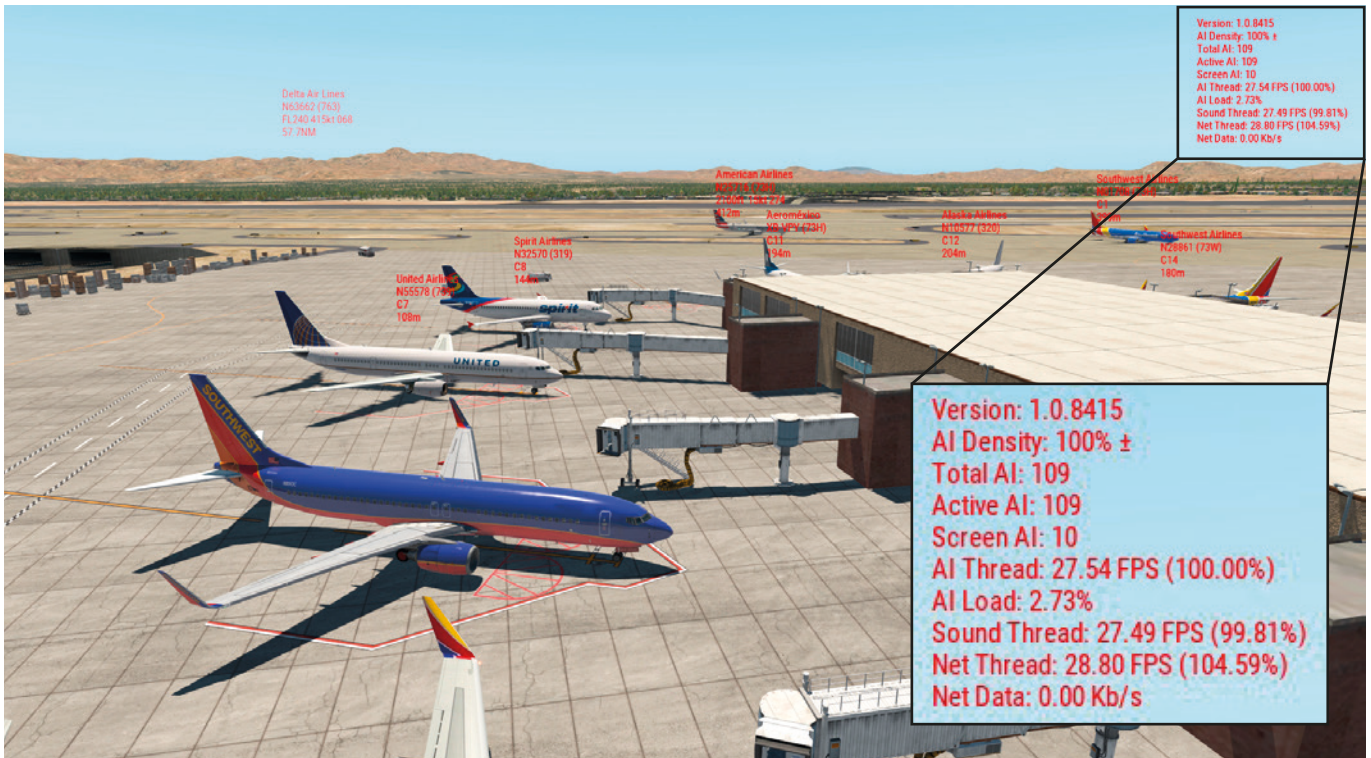
Buttons at the bottom of the display duplicate most of this functionality, allowing selection of the types of information shown, and zoom options for VR users.

You can quickly centre the map on any nearby airport by typing the ICAO code.

# Information Overlay

In addition to the new windows, Traffic Global can also show information about all nearby aircraft on the main simulator display. You can control this with the Insert key (Windows), or Ctrl+Help (Mac), switching between 'All Aircraft', 'Only flying aircraft' and 'No overlay'.

There is also an option to show extended information using Shift+Insert (Windows) or Shift+Ctrl+Help (Mac), which adds basic statistics about frame rates, network traffic and the number of AI aircraft being simulated and displayed. If extended information is enabled, there will also be a view name displayed if you are using one of the custom cameras.



## ATC/COMMS

A simple comms system is provided to allow you to interact with nearby airports, requesting the active runway and parking reservations. Since X-Plane's ATC is unaware of AI traffic, it will very often give you incorrect information about which runways are in use at an airport and this simple communication system is provided to solve this problem.

Tune your aircraft radio to the appropriate frequency for the airport and press the End key. If you are on the ground you will be given information about the active departure runway for your aircraft type; if you are airborne you will be given the arrival runway and a parking spot will be reserved for you. The airport's active flow will also be locked for up to 15 minutes after you call.

You will call the nearest airport on the frequency that the selected transmit radio (COM1 or COM2) is tuned to, as long as it is within radio range from your current altitude.

## GA AIRCRAFT

General Aviation aircraft can optionally be created and placed in the simulator, at any airport that is able to support them.

An airport can support GA aircraft if it has at least two GA parking spots (one is always left open) and a flow that supports GA and Propeller aircraft. If an airport is suitable, it will be populated but not filled with GA aircraft that are able to operate from that airport, based on their runway requirements and parking availability.

Each aircraft will have a schedule created which will be based around typical GA operations: part-day rentals, flying circuits and flight school-type activities like local area flights. It will vary depending on the time of day – a small amount of night operation will be created, provided the airport flows allow night-time use of the runways – and weather conditions, as well as timed to simulate the standard hourly rental periods. During the day, an airport may well have few parked aircraft if they are all flying.

You can remove GA aircraft entirely by switching the GA feature off in the Traffic Global settings. This is more efficient than reducing the GA traffic density to 0.

## Flight schools

Since there is no way in WED to define whether an airport is home to a flight school or not, Traffic Global reads an additional configuration file called FlightSchools.csv, located in the plugin's folder. This can be edited with any spreadsheet, or even a plain text editor, to set specific airports as having, or not having, a flight school. If an airport is not listed in this file, it has a small chance of having a flight school present.

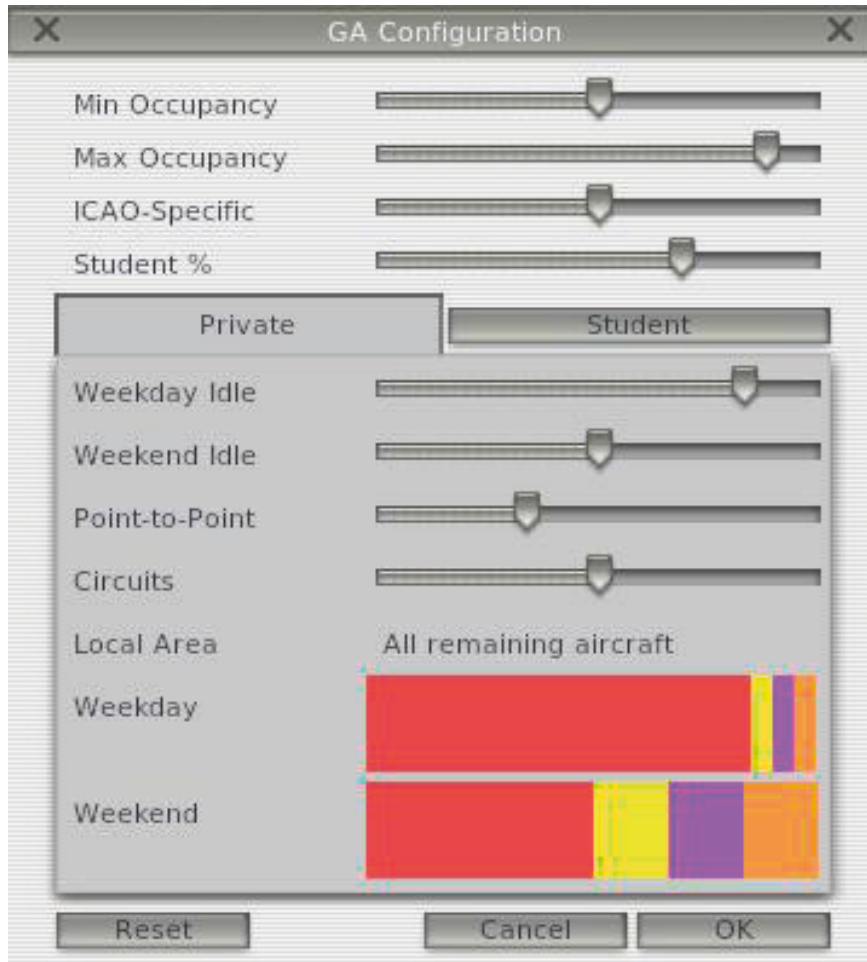
Please note that designating an airport as a flight school does not change the overall number of flights, only whether there is a chance of student pilots flying from this location.

If the airport hosts a flight school, the type of flight profile created will be much more biased towards student flights – circuits and local area. The flights are also more likely to be affected by weather.

School-specific aircraft liveries can be added by using the 'AirfieldList' parameter in an aircraft configuration file. Technically, restricting an aircraft livery to a specific airfield does not imply or require that the airfield is a flight school.

## Configuring GA aircraft

In most cases the GA creation process should give you a reasonable set of light aircraft flying from most supported airports. If you wish to change the creation parameters, you can override the standard limits using the “GA Configuration” dialog accessible on the plugin menu.



The minimum and maximum occupancy values control how much of the suitable parking at a given airport is filled with GA aircraft. This includes parking that is available specifically to GA and parking which is available to all operation types.

“ICAO-Specific” sets how likely an airport-specific livery will be chosen, if it exists. Please see the [Airport-specific liveries](#) section.

“Student %” sets the proportion of student flights that exist at flight schools. In other words, if this is set to 70% then 70% of the aircraft at a flight school will be flown by students; 30% will be flown by qualified pilots.

The following four settings are duplicated across Student and Private pilots and can be changed independently of each other. They work as a sequence of chances; in the example screenshot above, an aircraft flown by a private pilot has an 85% chance of remaining idle during the week or a 50% chance of remaining idle at the weekend. If that fails, it has a 50% chance of flying a point-to-point flight. If that fails, it has a 25% chance of flying circuits.

If all else fails, it will fly a local-area flight and return to the departure airport.

More details on the actual generation process are available at <https://www.jkcc.co.uk/traffic-global/traffic-global-light-aircraft-generation/>



# NETWORKED OPERATION

If you use X-Plane across several computers working together, either flying with friends or using several PCs to drive a single multi-screen cockpit, you need to synchronise the traffic between the different computers. This should normally happen automatically.

Traffic Global detects whether the X-Plane instance it is connected to is working as a master or external graphics display. The master display will transmit data about traffic to the external graphics displays using (by default) port 49015. X-Plane's network data frequency setting is obeyed when sending AI position data to external graphics computers.

You can reconfigure this port in Traffic Global's Settings dialog, making sure that you enter the same number for each X-Plane instance. Do not use a network port number that is already used by X-Plane.

If all your computers are on the same network segment, you are using a cabled network and you have more than two external PCs, you can try to use UDP multicasting. This reduces the amount of network traffic by only sending each update once, instead of once to each external graphics computer. It may not work, however, depending on exactly how your network is set up. You can always fall back to the standard non-multicast mode. Note that multicast is extremely unlikely to work across a WiFi connection.

Any external graphics computers that are not receiving any data from the master will show a warning at the bottom of the screen.

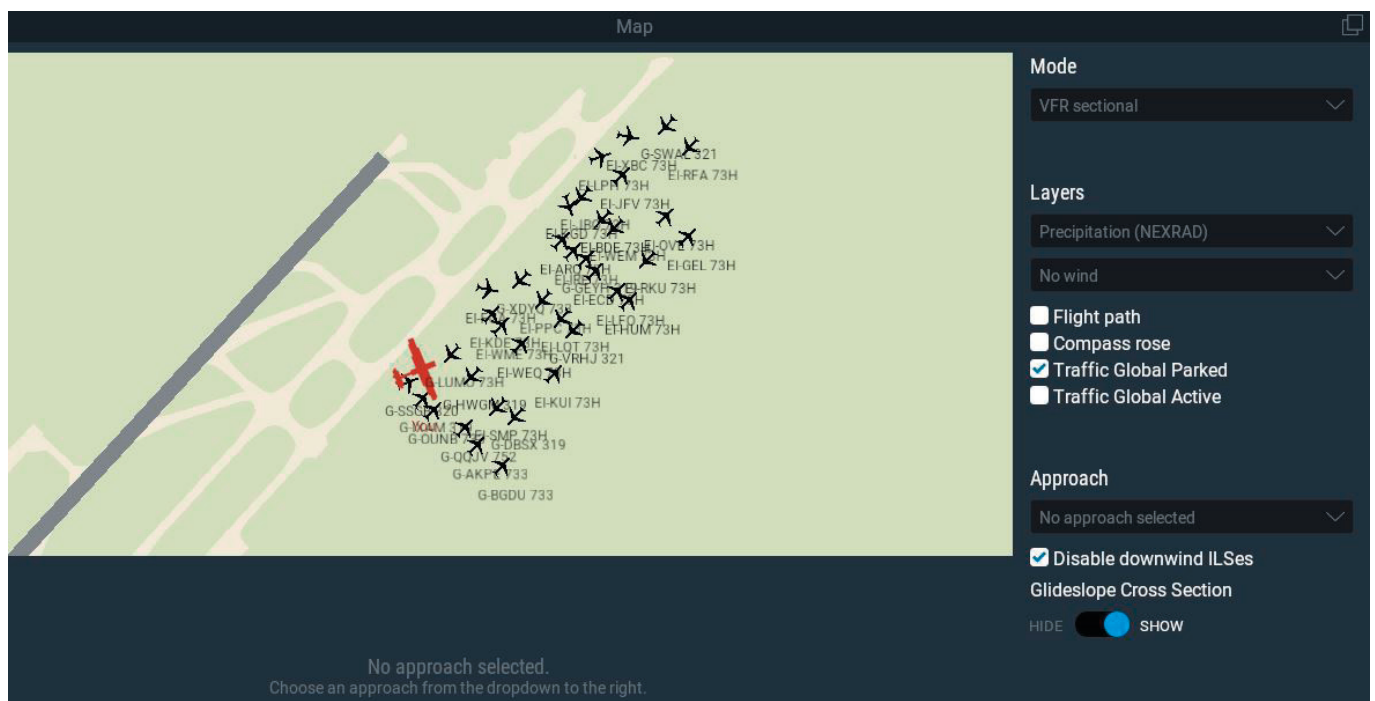
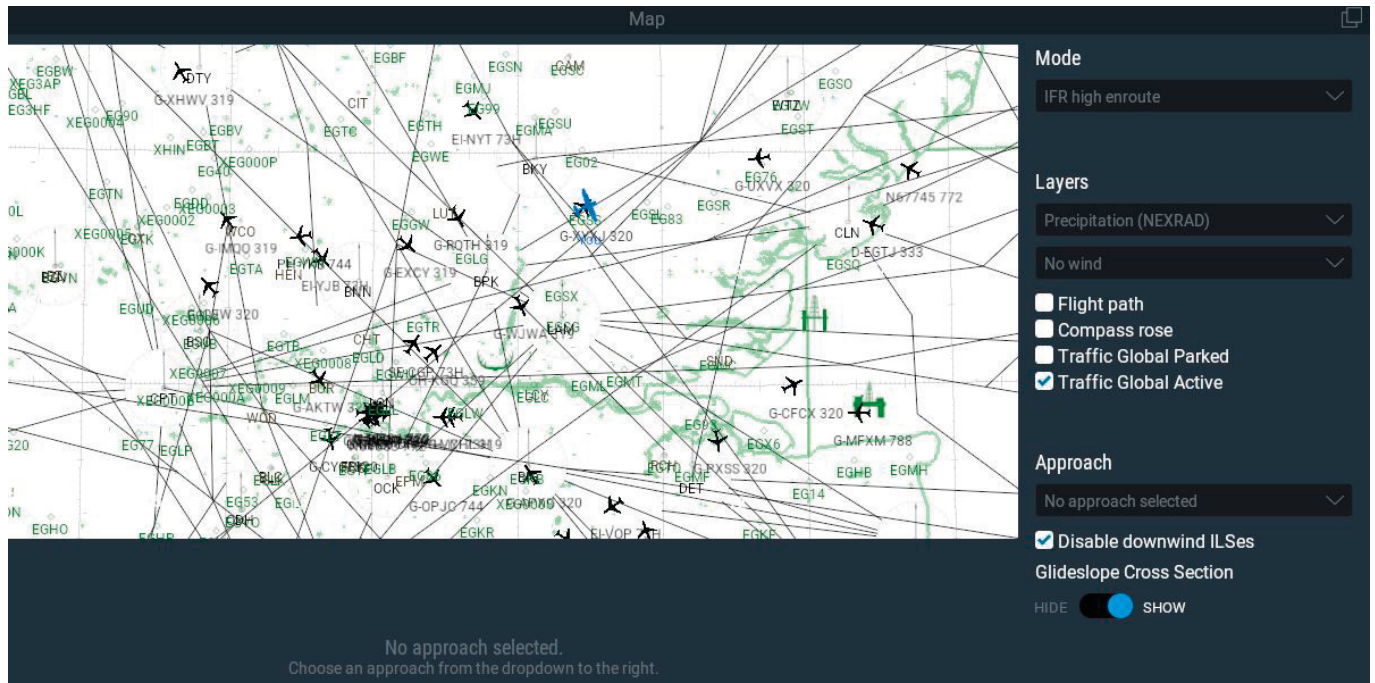
Remote displays will work across both Windows and Mac installations, provided that each client has a valid licence. Please do ensure that you are using the same version of Traffic Global across all networked computers.

There is currently a bug in X-Plane affecting the behaviour of external displays when custom views are used; external displays will not show the correct view. There is an option in Settings to make Traffic Global's own cameras work as expected across the network, to avoid this omission in X-Plane.

In general, networking support is expected to work "out the box" with no configuration required, except for opening firewall ports as with any other network application.

# MAP ENHANCEMENTS

Three new map layers, which can be switched on or off, are available on the simulator's map and instructor console. Two show the active AI aircraft (scheduled and GA) – those that are currently in motion – and the other shows those which are currently parked.



There is also the option to remove these map overlays completely in Traffic Global's settings.

Two known bugs with X-Plane 11.41 and early beta versions of 11.50 affect maps. First, you may experience a random crash if map integration is enabled, when the map is opened. Second, whenever new scenery is loaded by X-Plane, the map layers are re-enabled. These are both fixed in X-Plane 11.50 beta 9 and higher.

# TCAS SET-UP

Some aircraft, and some external tools, provide a TCAS (Traffic Collision Avoidance System) feature. Traffic Global supports this feature for both X-Plane 11.41 and 11.50, which use very different methods to achieve this. The TCAS option is available in the “Settings” dialog and does not require X-Plane to be restarted.

## X-Plane 11.41

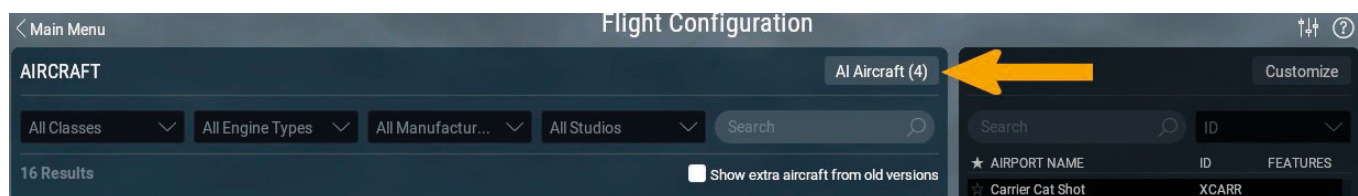
External input into the TCAS system was not officially supported by X-Plane 11.41 and adding this feature depended on a trick involving the X-Plane ‘multiplayer’ aircraft locations. Traffic Global does not use multiplayer aircraft at all, so normally these tools will not show the locations of nearby AI aircraft.

You can tell Traffic Global to use the multiplayer aircraft locations for up to 19 nearby aircraft. This limit is imposed by X-Plane itself, which will only allow 20 aircraft to exist at a time.

There should be no performance penalty for adding this but there will be some additional aircraft displayed on the simulator’s map and these will have incorrect orientations and labels.

You may also need to use the X-Plane ‘Flight Configuration’ dialog to manually enable the multiplayer aircraft. To do this, open the Flight Configuration page and click on the ‘AI Aircraft’ button near the top. On the next page, click the ‘Add Aircraft’ button until no more can be added. It doesn’t matter which aircraft are chosen since they will not appear in the simulator as long as Traffic Global’s TCAS option is switched on.

Traffic Global will detect if TCAS is enabled and add its own TCAS-specific model to the default flight configuration before the simulator starts, if needed. If you are using a saved Situation you may still need to add the AI aircraft manually.



## X-Plane 11.50

There is full, official support for up to 63 TCAS aircraft in X-Plane 11.50. No additional setup is required; simply enable Traffic Global’s TCAS option. Do **NOT** add AI aircraft to X-Plane’s flight configuration or these will be shown as additional flying aircraft in the simulator and will affect the performance of the simulator.

If you experience crashes when using X-Plane 11.50 with TCAS enabled, please update *all* other plugins since many are known to cause crashes when used with the new TCAS system.

# AIRPORT RUNWAY FLOWS

Controlling which flow, or set of runways, is in use at a given airport is a complex subject. X-Plane's own ATC system is unable to communicate with external plugins and so is unaware of any traffic except for your own aircraft. This means that the active runway reported by X-Plane may very often not be the same one in use by Traffic Global.

X-Plane's view on which runways are available may also be different to Traffic Global's if corrections have been made to airport flow rules, for example to fix conflicts or enable multiple active runways.

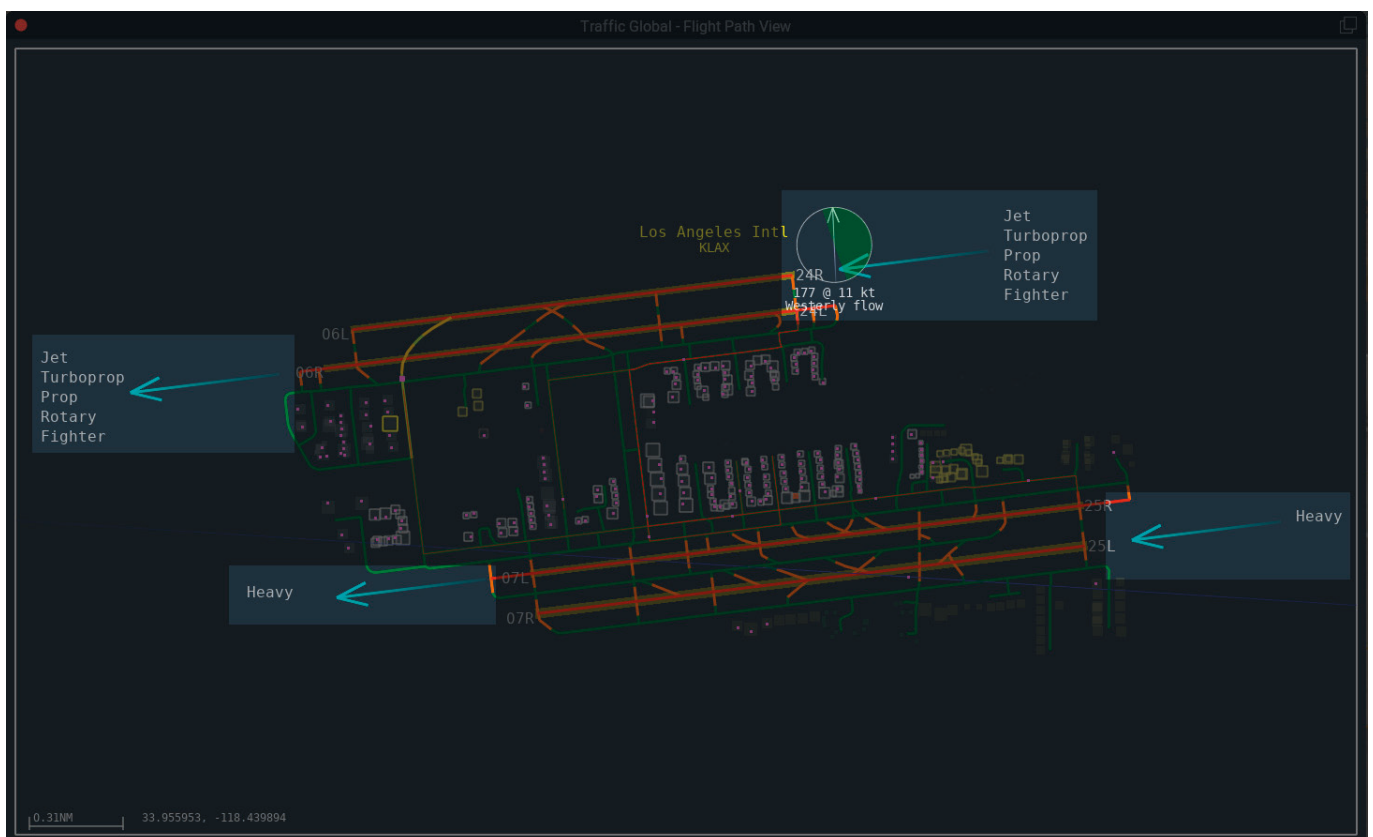
Any aircraft that is moving on or near the airport using a specific flow will hold it open for a short time after conditions change, and X-Plane is unaware of those aircraft and will therefore change flows immediately. To get a real picture of the current runway in use you should always use Traffic Global's comms system or the Flight Plan view, which shows active flows and whether or not they are changing.

On the Flight Plan view, when an airport is changing from one flow to another, the wind indicator will flash between two different flows, and the flow name will state which flow is active and which is pending. If you move your mouse pointer over the wind indicator, you will see a list of all the aircraft that are holding the old flow open.

Active runway information obtained from any other source – X-Plane's own ATC, online simulated ATC, real-world airport monitoring websites – will only match the flows currently in use in the simulator by coincidence and should not be used.

If the X-Plane flight weather is set to use either "Match real world conditions" or "From custom METAR file", the weather conditions at individual airports are taken into account if possible. If ActiveSky XP is installed, the weather for specific airports will be queried directly and the METAR.rwx file not used. Otherwise, X-Plane's METAR.rwx file will be scanned. Traffic Global requires that this file contains ICAO-specific METAR data, not latitude/longitude averages which start with MDEG.

Much more detail on the subject of weather and runway selection is given at <https://www.jkcc.co.uk/traffic-global/traffic-global-choosing-the-runway/>



# THIRD-PARTY SUPPORT

Some additional resources for developers, particularly airport designers, are available at <https://www.jkcc.co.uk/traffic-global/>. These documents will change and be added to over time.

## Developers

Traffic Global works around the normal X-Plane limit of 20 aircraft by using an entirely different mechanism for adding the AI aircraft. This means that the new aircraft will not be visible to standard tools which assume that any additional aircraft are present as 'multiplayer' aircraft.

This can be partially solved by using the TCAS work-around described above, but that only works for the 19 (63 for X-Plane 11.50) aircraft closest to the pilot. To try to help this situation, Traffic Global provides the location and other details of all AI aircraft in a way which other developers can easily use.

It is also possible to issue simple commands to a specific AI aircraft, to enable external ATC programs to monitor and affect AI movement around an airport. Airport flow data, including prior notice of a flow changing, is available.

Example source code in C++ is provided as part of the installation. It can be found in the Traffic Global directory, called 'DatarefTest.cpp'. Other languages should be easily converted. Although this example is now fairly complex, it is showing many different aspects and possible uses of the datarefs. The actual procedure of extracting data via datarefs is no more complicated than accessing X-Plane's own datarefs.

If you are a developer and need assistance with integration, please contact Just Flight via the [Support](#) page.

## Airport designers

Traffic Global is designed to use X-Plane's native airport data for all airport operations. This has the great benefit that there is no complex set-up or additional per-airport downloads required for most people; it simply works 'out of the box'.

There are a few differences in the rules applied by Traffic Global when it comes to traffic flows – that is, deciding which runways are in use at a given time. X-Plane's documentation states that the first applicable rule is used, but this leads to under-utilisation of runways at larger airports because the rules defined are not perfect. Although runway rules can specify more than one runway, most don't, even if the airport is capable of having more than one runway in use at a time.

To work around this, Traffic Global interprets the rule sets slightly differently. As with X-Plane, the first applicable flow will be used and the first applicable runway within that flow will be used. However, in many cases, airports with multiple runways are not correctly set up to differentiate between them; for example, an airport with parallel main runways will have no difference in their usage restrictions. By X-Plane's standard rules, the first of the two runways would always be used. If all other restrictions are identical, Traffic Global will add a new restriction to these runways based on on-course heading, allowing both runways to be used simultaneously.

Many other problems with airport layout and flow control are detected and corrected by Traffic Global. Any significant ones are noted in the Traffic Global logfile. Many common problems are also detected by WED during export.

# ADDITIONAL LIVERIES

The traffic database includes some flights for which the exact aircraft/airline livery is not provided, due to time constraints. Traffic Global will normally replace these missing aircraft with generic, unpainted versions to make sure that airports have a good level of active traffic. If you are at an airport which has a large number of unpainted aircraft, you can easily add your own liveries using nothing more than an image editor such as Photoshop or Gimp.

Each time X-Plane starts, a simple report of missing aircraft types called 'MissingLiveryReport.html' is created in the Traffic Global home directory. This gives you the code name for each aircraft that Traffic Global has tried to use and been unable to find.

To add a new aircraft type:

1. Copy an existing version of that aircraft, ideally the one called 'Paintkit' or with a name beginning with 'JFAI\_'.
2. Rename the .cfg and .OBJ files to match the aircraft and airline code given in MissingLiveryReport.html.
3. Edit the .cfg file, changing ONLY the 'Airline=' line to have the correct ICAO code for the airline you are using. ICAO codes are almost always three letters and can be easily found online. Take care to use the ICAO code, not the IATA code, which is usually two letters.
4. Edit the .DDS files using your chosen image editor. You may need to use an image converter first, to convert from DDS to either PNG or JPEG. Many of these are available online, including Laminar Research's own [DDSTool](#). After you have finished editing, convert the image back to DDS using the DDS5 compression method and with 'Generate MIP maps' ticked/selected. X-Plane may crash if it is asked to load an image with no mipmaps.

The next time you load X-Plane, your edited aircraft should be used. Check the contents of the MissingLiveryReport file to see if it is being used. This file is created after the entire scenery database has been loaded and checked, so it may take a little while to be updated. The date and time at the top of the report will tell you if it has been updated yet.

If you are providing new aircraft, please pay attention to the case of filenames since the Mac is case-sensitive.



## Airport-specific liveries

It is possible to limit GA liveries to be based only at specific airports, to allow you to add your local flight school or club livery and have it used only at the correct airport.

To do this, create a standard GA livery for the appropriate aircraft type and set the 'AirfieldList' value in the .cfg file to contain one or more comma-separated airport ICAO codes.

## Livery variations

Several different liveries can be used for one aircraft/airline combination by adding a fourth component to the filename. Although not all the provided aircraft follow the correct naming convention, the correct name should be:

Prefix\_Type\_Airline.cfg

... or ...

Prefix\_Type\_Airline\_Variation.cfg

The Prefix can be anything as long as it does not include an underscore character, which is used as a separator. The Type code should be the ICAO aircraft type, and the Airline the ICAO airline designator or the exact name as shown in the missing livery report, minus spaces.

By adding the variation part of the name, Traffic Global will use this aircraft as one of a randomly-selected pool for that aircraft and airline.

You can limit the number of aircraft that can use each variation using the "MaxInstances" value in the configuration file – this is included but commented out for all default aircraft. This value will be ignored if no unrestricted variants are available.

More information is available at <https://www.jkcc.co.uk/traffic-global/traffic-global-adding-new-aircraft/>

## SAM (SCENERY ANIMATION MANAGER) INTEGRATION

With SAM 2.0.8 and higher, Traffic Global will interact with any animated jetways for all parked aircraft. For this to work correctly, the exit locations need to be marked in the aircraft config file and should be the centre of the doorway. Exit locations are defined for all provided aircraft that would normally make use of jetways. Exit locations should not be provided for very small aircraft that would not normally use connected jetways.

## ACTIVESKY XP INTEGRATION

If you have ActiveSkyXP from HiFi Simulations installed, Traffic Global will read current airport weather conditions directly from this instead of using the global weather reported by X-Plane, if X-Plane is set to use a METAR file in the flight set-up (as ActiveSky XP requires). This allows more varied conditions at regional airports.

Initially ActiveSky XP is assumed to be running on the same computer. However, you can override this by modifying the “NetAddress” and “Port” values in Traffic Global’s config.ini.

The integration can be disabled if you wish using the Settings dialog. On-screen messages will tell you when the connection is successful.

The Mac version of Traffic Global still supports this integration even though ActiveSky XP is not currently available for Mac, in case this should become available in the future.

## ADDITIONAL AIRCRAFT

While it is possible to add new aircraft types to Traffic Global, aircraft design is outside the scope of a general user manual! If you are an aircraft designer already, the only thing to note is that the existing aircraft models use the standard X-Plane OBJ format but with custom datarefs for animations. These can easily be found by reading the existing models.



# AIRPORT DATA

***This is a technical section and absolutely not required reading if you just want to install Traffic Global and get going! You only need to read this if you are interested in making modifications to airports.***

Traffic Global uses the existing airport definitions provided by X-Plane. While this may mean that there are differences between what is visible in the simulator versus what you may know of an airport in real life, it means that the traffic you see is consistent with the rest of the simulated world. More importantly, it means you don't have to learn to use World Editor to alter existing airports or spend a long time defining custom rules for each airport you want to visit.

If you already know how to do these things, that's great! You can help improve the state of the simulator by making any required changes in WED and uploading your improvements to the official Scenery Gateway. Any improved rules you add will stand a good chance of being made available to all other X-Plane users, whether they use Traffic Global or not.

Each time Traffic Global starts, a file called 'MissingAirportReport.html' is created in its base directory. You can check this to see which airports are either entirely missing or unusable.

## What's important?

Traffic Global reads the same apt.dat files that X-Plane uses, reading them in the same order, based on the contents of the scenery\_packs.ini file. There is nothing you need to do in order to tell Traffic Global to read your airport – no additional configuration or files. Simply provide X-Plane with a new or changed apt.dat and Traffic Global will see the same changes.

The sections that Traffic Global is interested in mainly show up under 'Taxi+Flow':

- Taxi Routes
- Runways
- Start Locations
- ATC flows
- Tower viewpoint

Other important items are under the main airport record:

- Airport ID
- Datum latitude/longitude
- Country
- ICAO code

If you have all of these things correct, the airport should function more or less as you expect.

Parking records should have the 'Ramp Start Type', 'Equipment Type', 'Size', 'Ramp Operation Type' and any airline-specific reservations set. Note that a Ramp Operation Type of 'None' means 'No Restrictions', not 'Nothing can park here'.

Taxiway records should likewise have all the data set; it is all used except for the 'ILS Precision Approach' data. Please note that Traffic Global may still allocate other airlines' traffic to reserved parking slots if no open-use slots are available if the "Never Steal Parking" option is not enabled.

A hotkey is available to help you test parking and taxi routes, defaulted to Alt+1. This will tell the currently-selected aircraft to push back immediately. This completely changes the aircraft's schedule and ignores normal startup times, affecting SAM integration, so is not seen as part of normal operation. However, if you want to check how parking spots behave at an edited airport, this can save a lot of time.

The further from the nearest taxiway a parking spot is, the more likely it is to have problems finding the correct route out. This is especially visible in cul-de-sacs between terminals where the nearest defined taxiway is often several hundred metres away, even if paint lines exist for the taxiway extending up between terminals. Taxiways should not pass through parking, as per X-Plane's own design criteria, but ensuring that taxiways extend into awkward corners will help greatly.

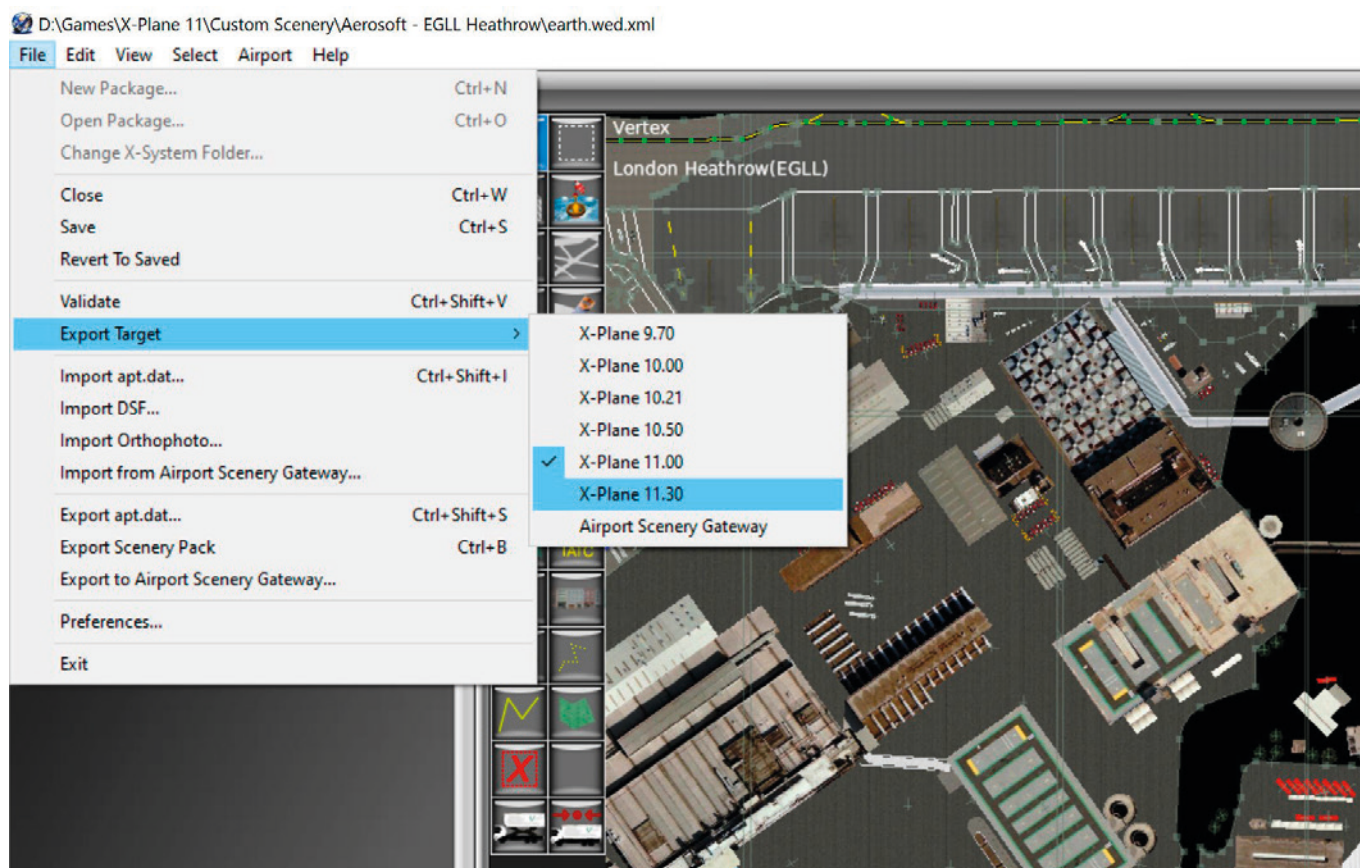
More information is available at <https://www.jkcc.co.uk/traffic-global/traffic-global-airport-design/>

## Support for X-Plane 10 airports

Before X-Plane 11, information about airports was very limited in comparison. In particular, X-Plane 11 airports usually come with the all-important taxi routes defined. Where this doesn't exist, and for all X-Plane 10 airports, Traffic Global will try to create a taxi network from visual features. This approach very much depends, however, on the quality of the airport. For some airports it will not work at all if visual features have been used inappropriately, especially when the airport designer has used taxiway markings as boundary markings.

## Problems?

If you do modify an airport, make sure that you re-export the apt.dat file and that your 'Export Target' is set to X-Plane 11.30 or higher, otherwise the detailed parking records (type 1301) are not exported. Remember that Traffic Global reads the apt.dat, not any xxxx.wed.xml files that are used by the editor.



# EDITING TRAFFIC

At present there are no supplied tools for modifying the traffic database. It is possible that these may be added in the future if there is sufficient demand. The supplied traffic database is the end result of a complex set of processes which were not considered robust enough for general use.

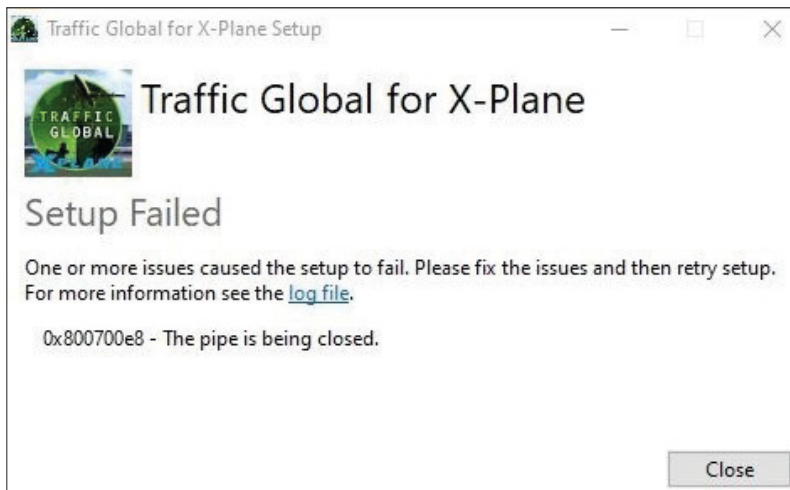
You can, however, add your own traffic using existing, freely available tools. The traffic database is in the widely known BGL format used by Prepar3D and Flight Simulator X. Traffic Global will read any traffic BGL file that is placed in the Traffic Global base directory. There are also freely available third-party tools for creating and editing BGL traffic files.

If you add your own traffic, remember to add return routes! If you add a single flight which is marked as a weekly flight, for example, an aircraft will exist on the tarmac somewhere for the whole of the rest of the week, occupying a parking slot and potentially erasing hundreds of other flights which now have nowhere to park.

You can generate the required airport and aircraft lists from inside X-Plane, using the 'Dump Airport List' menu item.

# TROUBLESHOOTING

## The installer fails with error code 0x800700e8



This is caused by anti-virus software being a little too careful for its own good – a very common problem, especially soon after release. Avast and AVG are particularly prone to this. The only solution is to temporarily disable your anti-virus software, install Traffic Global, then immediately re-enable it and run a full scan. The executable file in the package is called 'Traffic Global.xpl' and you can upload this to a site like [VirusTotal](#) to do a specific check. Microsoft runtime components are also included. The installer, the Microsoft runtimes, and the plugin itself are all digitally signed to prevent tampering.

### **Why does scenery not appear if I watch aircraft in the distance?**

X-Plane only loads scenery around the pilot's aircraft, even if the view is looking some distance away. This means that if, for example, you look at parked aircraft that you can see on the radar at a different airport, there may be no airport buildings or even runways visible. If you are far enough away and high enough above the ground, you may even see parts of the ground surface disappear. Unfortunately there is currently no way of requesting that X-Plane loads scenery at a specific location, nor is it smart enough to automatically load scenery at the camera's current location.

### **I have just installed a new scenery package and Traffic Global didn't use the new airports**

The simple solution is to restart X-Plane. It takes quite some time to read the traffic database, so Traffic Global gets going as soon as it starts, which is almost as soon as X-Plane starts. X-Plane doesn't add new scenery until much later, so the first time you run it after installing a new package, Traffic Global will already be reading the scenery database before the new package is added.

### **There's not enough/too much traffic at my airport**

While the traffic database provided by Traffic Global is 100% based on real flights, it will always be the case that the simulated world differs from the real one. The purpose of Traffic Global is to allow you to enjoy being at active airports rather than to provide a perfect match for today's real-world departure boards.

There are several reasons for these differences. Converting the real traffic data into a form that the simulator can use is much more complicated than you might expect (<https://www.jkcc.co.uk/dev-diary/traffic-global-diary-march/>) and the simulated airports are very often different to their real-world counterparts; in particular, older sim airports can have very little parking available beyond two or three alternative starting locations.

It is possible to reduce the amount of traffic at a particular airport using the Excludes dialog. Note that aircraft that are excluded in this way will also clearly not be present at any other airport they are scheduled to visit.

### **My favourite airport has no parking or very little parking**

The first thing to do is see if a newer version of the airport exists on the X-Plane Scenery Gateway. Many airports uploaded to the Gateway do eventually make it into the simulator but you can get updated versions much sooner if you check for yourself. Also remember to run X-Plane's own scenery updater (see the [INSTALLATION](#) section).

On Traffic Global's menu there is a 'Show Missing Airports' option. This shows an automatically generated report of which airports Traffic Global is completely unable to use, either because the airport is missing or has no usable runways and/or parking. You can check the Scenery Gateway using the links in the report to see if there is a newer copy that is not yet included in the simulator and download it if one is available. At the time of writing, most airports on this list have only old, 2D versions available on the Scenery Gateway.

The best way to see what is happening at any airport is to use the Flight Plan view and zoom in. This shows taxiways, parking, flows and any restrictions that apply.

### **Airline X is parking at Terminal 3 but its aircraft don't do that in real life!**

X-Plane is a simulator, not real life! There will always be differences between what you see in the simulated environment and what you see in the real world. Parking is allocated according to a complex set of conditions and these will almost inevitably be different to the rules in effect at the real-world airport equivalent. In some cases aircraft will 'steal' reserved parking from another airline if necessary. You can switch this behaviour off in Settings. It could also be that the simulated airport has incorrect, outdated, or no parking reservations assigned.

### **An aircraft is using a weird taxi route which it would never do in real life!**

X-Plane is a simulator, not real life! A real airport has a team of people designing the most efficient taxi routes for any given time of day, weather, traffic load and many other conditions. Traffic Global has a single set of rules, albeit a complex set, to determine taxi routing across every airport in the simulated world. The routes it chooses may well not be the routes that a dedicated team of humans, focused on their own specific airport, would choose.

### **There are several all-white aircraft in the sim**

The traffic database in Traffic Global includes almost all of the flights recorded in the commercial flight database that was used as a source. In some cases the specific combination of aircraft type and airline isn't available in the set of aircraft supplied with the software. In these cases, a roughly equivalent aircraft type will be used to make the airports feel as busy as they should be, and these will generally be a generic white paint. You can switch this behaviour off in Settings.

### **There are several all-grey aircraft in the sim**

These are X-Plane's own AI aircraft, set to use Traffic Global's AI models. They will also occupy used parking spots and not attempt to avoid Traffic Global aircraft. If you are using X-Plane 11.41 then ensure that Traffic Global's TCAS system is enabled. If not, or you are using X-Plane 11.50, remove all X-Plane AI aircraft from the flight configuration.

### **Can I edit the traffic database?**

At present there are no tools provided to allow you to edit the supplied traffic database. The database is the end result of a very complicated set of processing steps and making changes to it is likely to do more harm than good. However, the database format is the widely used BGL traffic database shared with Prepar3D and Flight Simulator X so existing, freely available tools can be used to augment or entirely replace the existing traffic database if you wish.

### **The AI aircraft start disappearing and before long there are none left**

This is caused by the Dynamic Traffic Density settings. In rare cases it may reduce traffic levels when it is not necessary and the cause of this has not yet been found. Simply disable Dynamic Traffic Density to solve the problem.

### **Traffic Global isn't using the right runways according to X-Plane's ATC**

This is expected, and due to there being no way for a plugin to communicate with X-Plane's ATC system. Please see the section on [AIRPORT RUNWAY FLOWS](#) for more details.

### **No traffic is appearing on my external graphics computers**

Please make sure that you are using the same version of the plugin on both master and external graphics PCs. External PCs need a valid license, so check that the license has been accepted by using the Settings dialog; if the "Buy License" button is visible, please re-enter your license details.

The most common cause is a firewall or router blocking network traffic on the port used by Traffic Global. The easiest way to detect this is to temporarily disable firewall software; if this fixes the problem then reconfigure the firewall to allow UDP traffic on the port you have set in the networking settings (default 49015).

### **Aircraft don't have the correct registration painted on them**

This is intentional. For unique and correct registrations for each aircraft, each one would need to have unique textures created. Near busy airports there can easily be over 1,000 active aircraft so this would mean creating, storing and reloading 1,000 different textures. Each of these would require memory on your graphics card and this would significantly impact X-Plane, possibly preventing it from running at all on some cards.

### **Aircraft are not moving smoothly**

With full aircraft populations, Traffic Global can end up easily driving more than 1,000 active aircraft in busy areas. Although the work involved in doing this is done in parallel to X-Plane's own work and so should not slow things down, it has to be expected that with this much additional work being done there needs to be a payoff. The most important thing for performance is to allow X-Plane to run on as many CPU cores as possible; it will struggle if it is limited to four or fewer cores. If your CPU supports hyperthreading, do **NOT** disable this feature.

### **On-screen message “CPU usage excessively restricted”**

This message appears if you have used a tool to artificially restrict X-Plane to running on a very small set of your CPU's cores, often known as “affinity locking”. X-Plane itself, Traffic Global, the graphics card drivers, Vulkan and other components are all multithreaded and so will generally use as many cores as they are able. By restricting the CPU cores you are causing stuttering, poor frame rates, longer loading times, network sync delays and other problems.

You can disable this message by manually entering “WantStuttering=1” to the “TrafficGlobal” section of the plugin's config.ini.

### **Enabling TCAS causes crashes**

The way that X-Plane supported TCAS systems changed significantly in 11.50. While plugins written for prior versions should continue to work as normal, in many cases there are problems including crashes. The usual cause is that Traffic Global – and any other TCAS provider – can now add 63 aircraft, while older plugins are written to expect a maximum of 19. The solution is to update all other plugins, not just those that provide cockpit instrumentation.

Please note that many third-party aircraft also include plugins and that in many cases it is these plugins that cause problems.

### **How to resolve a crash**

X-Plane will always record the name of the plugin that crashed at the end of its log file (Log.txt) so there is a good chance that this will tell you exactly which plugin to update. If not, please contact Just Flight Support with a crash dump file.

If Traffic Global caused a crash, there will be a file called “Traffic Global.dmp” in X-Plane's “Output” folder. This file is never deleted, so please check that the date of the file is correct. It will be fairly large so you will probably need to send it using a file-sharing service such as Dropbox, OneDrive or Google Drive.

In all cases, X-Plane will also write out a smaller crash dump in the “Output\crash\_reports” directory, ending either in .rpt or .dmp . Again, please check the file date to make sure you have the right one.

Without one of these crash dumps it is impossible to find the cause of the crash. Neither X-Plane's nor Traffic Global's log files provide enough information.

### **The ActiveSky XP integration won't connect**

Usually no additional configuration is needed for this to work. Traffic Global uses a default connection of `http://localhost:19285/` for ActiveSky XP. You can check the connection easily in any browser – if the address is correct you should immediately get a “404 not found” error. If you get any other error, or a timeout, then the address may not be correct.

Please note that although normally “localhost” and “127.0.0.1” are interchangeable, because of the way that ActiveSky XP creates its network listener, only one of these may respond and it is worth trying both. If in any doubt, the exact address given in ActiveSky XP's “General Options”/“Http web request port” and “Default Local IP Address” should normally work.

### **Can I use VATSIM at the same time as Traffic Global?**

Technically there should be no problems but, practically speaking, they are not compatible. Both create aircraft that the other will not be aware of and may be using different weather rules or different active runways. Aircraft from both systems will happily taxi, fly and park on top of aircraft from the other.

Traffic Global is aware of X-Plane's “XPLM\_MSG\_RELEASE\_PLANES” message and will automatically stop controlling TCAS aircraft when this is sent by another plugin. Optionally, you can set the “RELEASE\_AIRCRAFT Disables” setting in Traffic Global's Settings dialog and this will make Traffic Global totally disable itself when this message is received.

Any other plugin can therefore request that Traffic Global disables itself at an appropriate time, such as when it successfully connects to an online traffic service.

You can also simply disable Traffic Global using X-Plane's standard Plugin Manager.

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**Many thanks to all the testers!**

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This program uses open-source projects ZoneDetect, Freetype and Date. Licenses for these components are included in the installation package in the Licenses folder.

# *More X-Plane 11 aircraft from Just Flight*



*Robin DR400*



*PA-28-181 Archer TX/LX*



*PA-38 Tomahawk*



*Duchess Model 76*



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*Hawk T1/A Advanced Trainer*



*C152*



*PA-28R Turbo Arrow III/IV*



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