

## Using SuperTrafficBoard Client on another computer

The STB Client may be used on another computer that is network connected to your main Prepar3D computer. A typical example is a laptop running the client, connected to a home PC running Prepar3D using a wireless network. In this scenario, the computer running The STB client is known as the “Client Computer”, since it is separate to the Prepar3D Computer.

Using The STB Client on a client computer has a number of advantages, including:

1. STB does not take up valuable “viewing space” on your Prepar3D Screens.
2. All functions, including the *AI Views*, are available.

### ***Overview of Tasks***

Additional configuration is required on both computers. The following instructions assume that both computers can already “talk” to each other across a network, and refer to the **“STB Client” computer** and **“Prepar3D” computer** as separate units.

On the Prepar3D Computer:

- Download and Install SuperTrafficBoard Data Server (STB-DS);
- Run the STB-DS configuration wizard, that configures Prepar3D for network communications;

On the STB Client Computer:

- Install the STB Client;
- Run the STB Client configuration wizard and specify and configure a remote connection to the Prepar3D computer;

## ***Installing the SuperTrafficBoard Data Server***

The STB Data Server supplies the following information and capabilities to the STB client on a separate client PC:

- Airport facility data including parking, runway and AI schedules;
- Commands such as the *AI Views*, *Depart Now* and *Approach Now*.

### **FSX Version of STB-DS or Earlier Prepar3D Version Already Installed?**

No problem, you can have both the FSX and multiple Prepar3D versions installed at the same time. Don't try running them at the same time however, as they cannot both be active. If you follow the recommendation of starting STB-DS automatically with Prepar3D this should not be a problem, as you cannot have FSX and Prepar3D running at the same time on the same computer either!

You can also have older versions of STB-DS installed at the same time, for example those for Prepar3D V4.

### **Installation Instructions**

1. If you have previously installed STB-DS for Prepar3D V5, please uninstall it before proceeding to install the latest version.
2. On your Prepar3D computer, download the latest version of STB-DS from wherever you purchased SuperTrafficBoard.
3. Unpack the installer from the zip file and run it. Follow the instructions given by the installer.
4. The configuration wizard starts automatically after the installation is complete. If it does not, you may request it by clicking "Reshow Configuration Wizard" on the main STB-DS window.
5. Work through the wizard. There are two steps, a configuration options window and a status window. Use the default configuration actions presented. Tooltips are available that describe each action, simply allow the mouse to float over a particular item. The outcome of each configuration action is reported in the second step.
6. The wizard will tell you the name of your Prepar3D computer. **Make a note of this, it's required by the STB Client configuration wizard.**
7. You may also see a firewall warning. Please allow STB-DS to use your **private** network. It is not recommended to allow access to a public network such as the internet.
8. Start or restart Prepar3D.

## ***Installing the STB Client on the Client Computer***

Note: The license you purchased for STB allows you to install it both on the Prepar3D computer and on a separate client computer if you wish to. On the client computer:

1. Run the STB Client installer.
2. The configuration wizard will start automatically once the installer is complete. If it does not, click “Reshow Configuration Wizard” from the “Configuration” pull down menu in the STB Client menu-bar.
3. In step 1 of the wizard, select “Lockheed Martin Prepar3D on another Computer”.
4. If you have already used this computer as a SimConnect client, the name of the Prepar3D computer is already filled in so continue on to the next step. Otherwise in wizard step 2 enter the name of the Prepar3D computer (or IP address). This was provided to you when you ran the STB-DS configuration wizard on the Prepar3D computer.
5. Work through the remainder of the wizard. For additional information, see **Configuration Wizard** on page 13.
6. After reaching the main STB Client window, you’ll need to restart STB to complete the configuration.

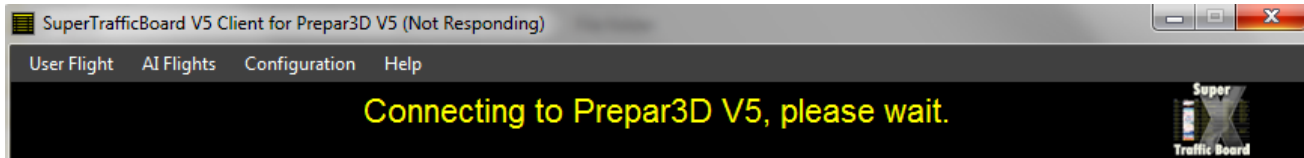
Note: STB-DS may be started as a minimized application, if you want to see the window you’ll need to click it from the taskbar. Closing Prepar3D automatically closes STB-DS.

## Connecting to Prepar3D

Create a flight on your Prepar3D computer and start the STB Client on your client computer. When the flight has finished loading, click the Connect button. The connection is made through two steps:

### Prepar3D SimConnect Connection

While connecting to Prepar3D, the following is displayed on STB:

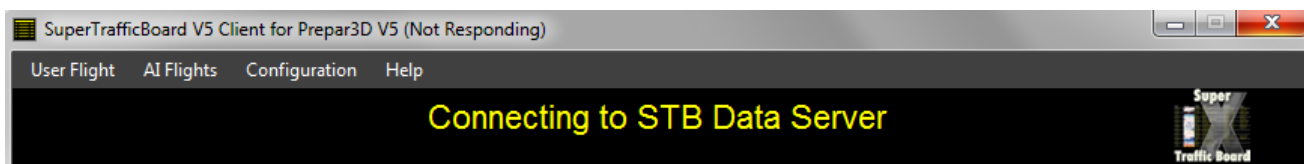


And the Connect button turns Orange:



### STB Data Server Connection

Once the Prepar3D SimConnect connection is made, STB Data Server is next. While connecting to STB-DS, the following is displayed on STB:

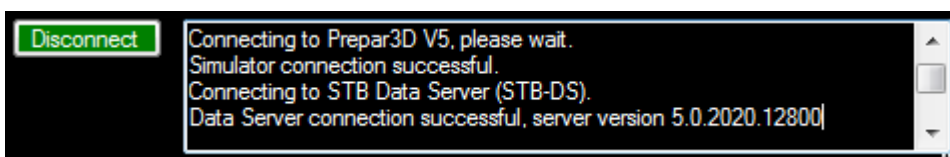


And the Connect button turns Yellow:



### Success!

A separate message in the message box describes each connection outcome and the result. Below is an example when connection is successful. At this point the Connection button turns green and flight data starts loading from the simulator and STB-DS. Note it takes a little longer to obtain the list of flights from Prepar3D when using the STB client on a separate computer due to network lag.

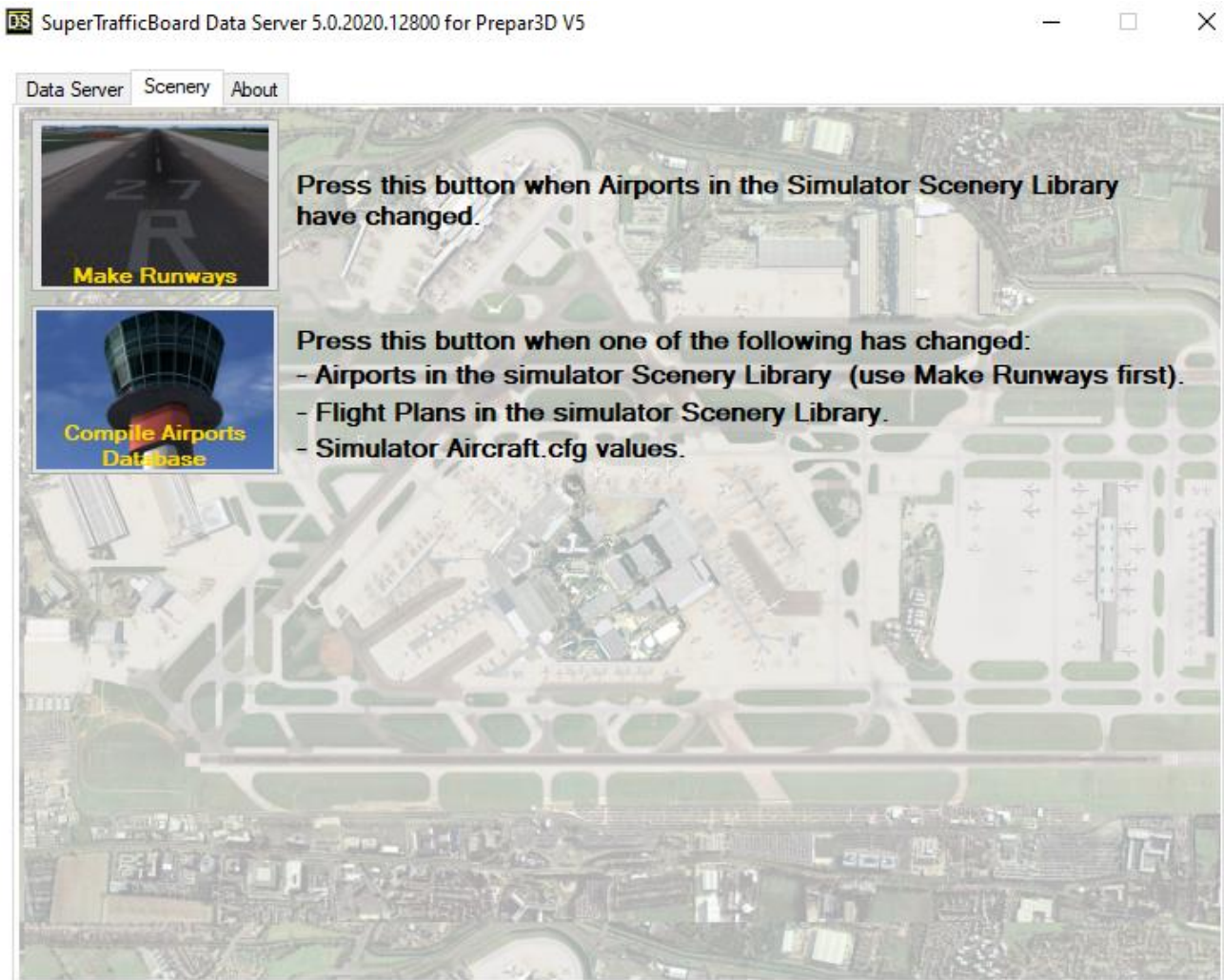


The complete set of messages is:

- Connecting to Prepar3D V5, please wait.
- Simulator connection successful.
- Connecting to Remote STB Data Server (STB-DS).
- STB-DS connection successful, using server version 5.x.x.x
- Simulator reports identity as Lockheed Martin® Prepar3D® V5 5.x.x.x
- HH:MM Simulator Traffic Volumes now Airline:xx%, GA:xx%.
- HH:MM The Super Traffic Board Simulator Plug-in 5.x.x.x is online.
- HH:MM STB Simulator Plug-in Delete AI is now online.

## STB-DS Usage Notes

- Flights are a little slower to load into the STB client display when using STB-DS, especially the initial list immediately following connection to Prepar3D;
- When the Prepar3D Scenery Library changes, it may be necessary to perform the “Make Runways” action, the “Compile Airports Database” action or both. The actions are available on the **Scenery** tab. For more information, see **When Changing the Prepar3D Scenery Library** on page 17.
  - While either action is running under STB-DS, you will not be able to connect the STB client to Prepar3D.
  - If the STB Client is connected when you begin, it will be automatically disconnected.



## Advanced Topics

Most users do not need to be concerned with this section. However it may be of assistance if you need to **deal with STB, SimConnect and TCP/IP Ports**. In a nutshell, the port identifies which application a message sent on the network is intended for. There are 2 ports relating to STB communications:

- The SimConnect port, which the STB Client specifies 2024 as a default;
- The STB Data Server port, 32123;

You'd only need to concern yourself with ports is when some other application is trying to use one of the above, which may prevent STB from working correctly.

## Which TCP Port to Choose?

For further guidance on determining available network ports, perform an internet search using the term "free TCP ports". Sometimes setting values by "trial and error" is the most effective method.

## Configuring SimConnect Server Ports

The Simconnect Server configuration file (simconnect.xml) is found in the Prepar3D Application Data Folder. For assistance in locating the folder, see "**Application Data Folder for STB Client, STB Data Server and Prepar3D**" on page 93.

The settings group (there may be several) in the file used by the STB Client and SimConnect will look similar to the following:

```
<Protocol>IPv4</Protocol>
<Address>192.168.1.2</Address> or <Address>My_Prepar3D_PC</Address>
<Port>2024</Port>
```

The port value may be changed as you see fit, but will need to match the corresponding configuration on the SimConnect client (see next topic for details). After making changes to the simconnect.xml file, restart Prepar3D.

## Configuring SimConnect Client Ports

The SimConnect client configuration file (simconnect.cfg) is found in the "My Documents" folder on your STB Client computer. There is just a single group of settings in this file, and it will look like the following.

After copying the sample file to MyDocuments, edit it and ensure it contains the following lines:

```
[SimConnect]
Protocol=<Internet Connection Protocol>
Address=<Name or IP Address of your Prepar3D Computer>
Port=2024
MaxReceiveSize=4096
DisableNagle=0
```

**"Port"** is the TCP Port used for SimConnect communications. This value must be the same on both the STB Client and Prepar3D Computers (simconnect.xml, see previous topic). After making changes to this file, restart the client.

## Configuring STB-DS Ports

Both the STB Client and STB-DS require matching values for “STB Data Server port”, as they are on opposite ends of the same connection.

### Prepar3D Computer:

The STB-DS port value can be set in the STB-DS main window:

- Remember STB-DS may be running minimized; look in the task bar if you do not see it
- Configuration section;
- The port number is set in the “STB Data Server Port” control;

After changing the value and clicking the “Apply” button, the STB-DS configurations are updated with the new port value. To complete the configuration, you will need to stop and restart STB-DS.

### STB Client Computer:

The STB-DS port value can be set in the STB Client Settings Notebook:

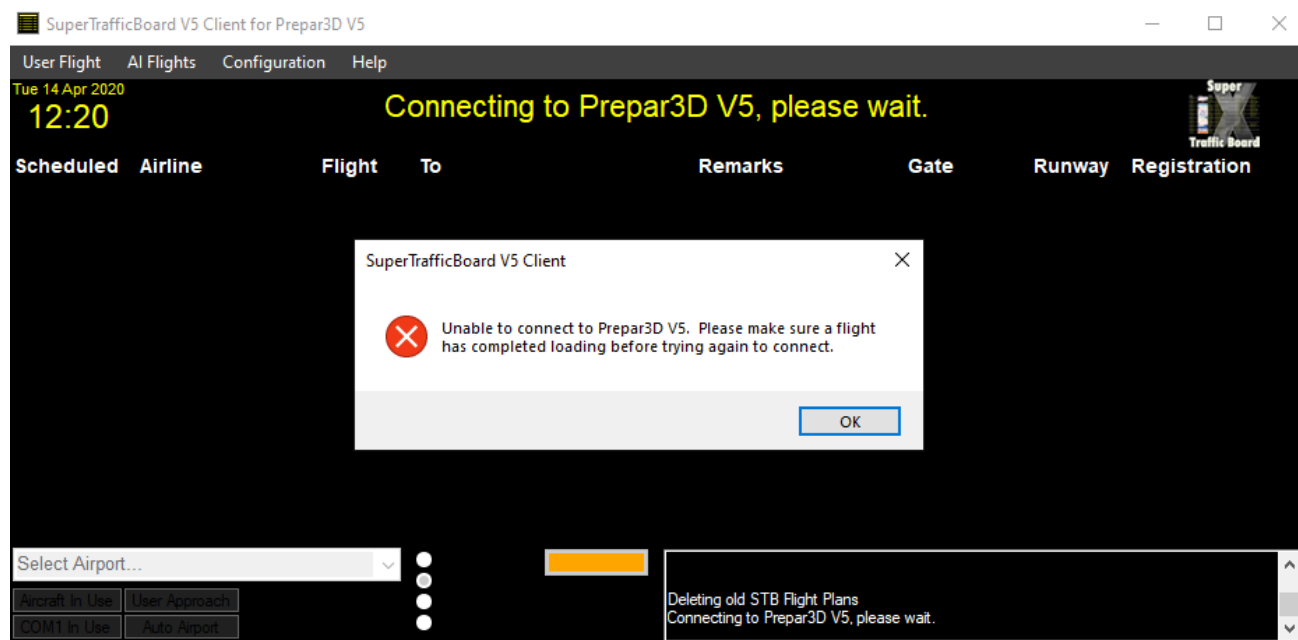
- Deployment Tab;
- STB Data Server (Remote Simulator) Section;
- The port number is set in the “STB Data Server Port” control;

After changing the value and clicking either the “Save” or “OK” button, the STB configuration is updated with the new port value. To complete the configuration, you will need to stop and restart both STB.

# Troubleshooting Connection Failures

## Unable to Connect to Prepar3D

The STB Client first attempts to connect to Prepar3D, and if that is successful STB-DS is next. If the Prepar3D connection attempt fails, the following dialogue may be presented:



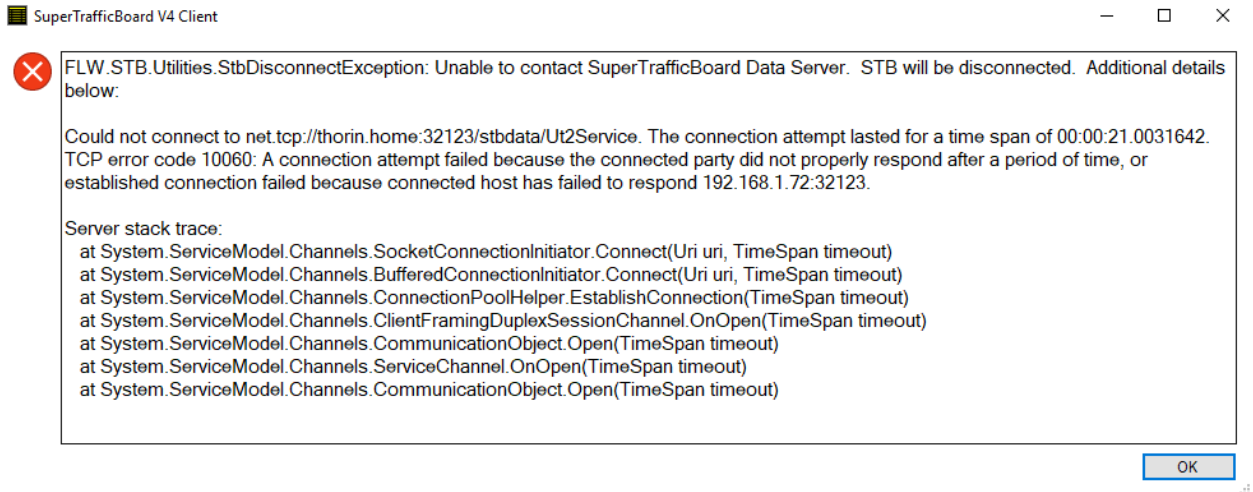
This typically takes less than a minute to show up, and may be caused by:

- Prepar3D is not running;
- Prepar3D is has not made sufficient progress during start up. You can connect once the “scenario” dialogue is displayed or a flight is fully loaded and active;
- The “*My Documents\simconnect.cfg*” file on the STB Client computer has an incorrect computer name or IP address for the Prepar3D computer;
- The Prepar3D computer is not on the network;
- A firewall is blocking the Simconnect ports;
- Prepar3D has an invalid *simconnect.xml* configuration file (in its application data folder);
- There is a mismatch in the ports specified between the STB Client “*simconnect.cfg*” and Prepar3D server “*simconnect.xml*”;



## Unable to connect to STB-DS

Once a connection is successfully made to Prepar3D, the STB Client next establishes the connection to STB-DS. The STB Client can wait up to 60 seconds for STB-DS to respond to a connection attempt. If the attempt fails, a dialogue similar to the following may be presented:

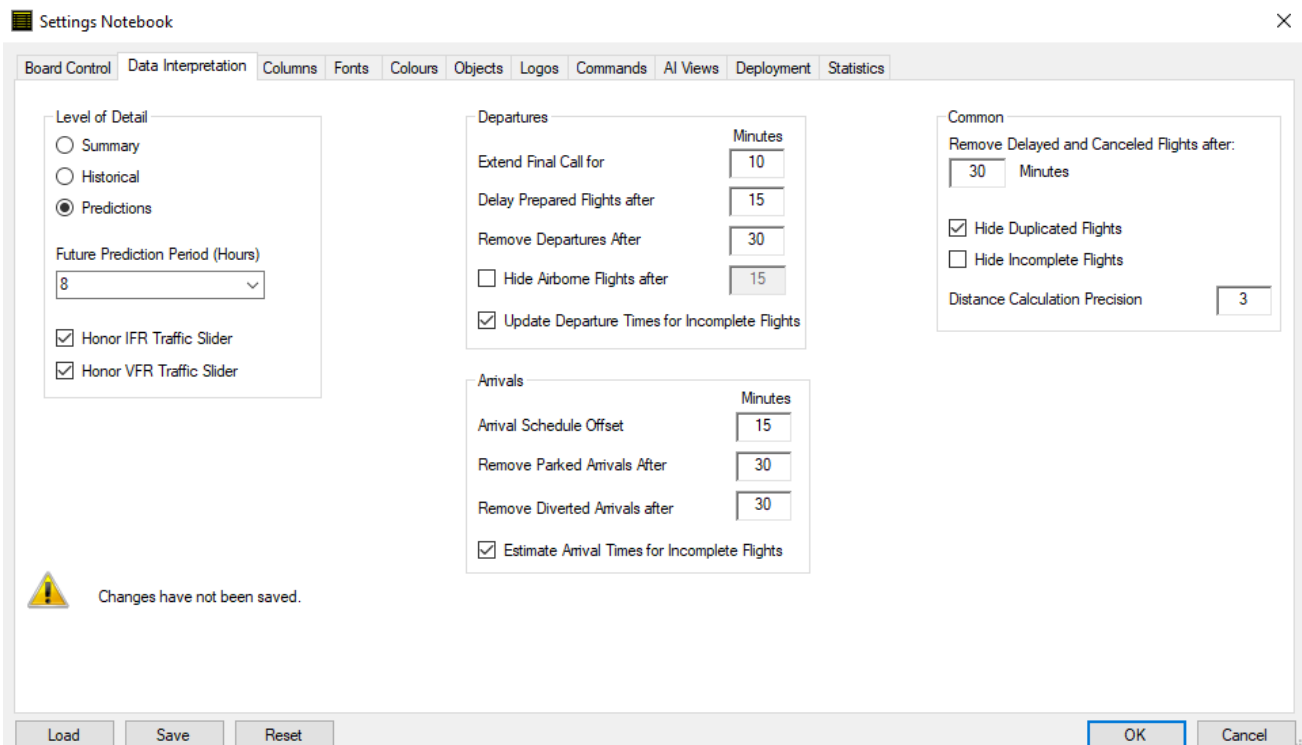


Typical causes of this connection failure include:

- STB-DS is not running on the Prepar3D computer;
- The STB Client "*TrafficBoardFrontEnd.exe.config*" has an invalid IP address or computer name for the STB-DS/Prepar3D computer. The ".exe.config" file is found in the STB installation folder;
- There is a mismatch in the ports specified between the STB Client "*TrafficBoardFrontEnd.exe.config*" and the STB-DS "*STBDataServer.exe.config*" on the STB-DS/Prepar3D computer;
- A firewall is blocking the STB-DS ports;

## Appendix A: Working with Settings

The STB Client is highly customizable through a dedicated settings notebook. You can access the notebook at any time by clicking the **Settings** command from the Configuration pull-down menu in the action bar.



Information in the Settings Notebook is organized into tabs:

- **“Board Control”** configures the STB Client windows behaviour, language translation, keystroke forwarding from Prepar3D, automated recovery of traffic congestion problems and airports;
- **“Data Interpretation”** configures the way Prepar3D data is interpreted and presented;
- **“Columns”** configures the choice of flight information columns displayed on the board;
- **“Fonts” and “Colors”** configures the look and feel of flight information displayed on the board;
- **“Objects”** configures the content of various object categories such as aircraft, airlines, board column headings and flight status remarks;
- **“Logos”** configures the AI package for the STB Client supplied airline logos, how images are displayed, and how new ones can be added;
- **“Commands”** configures how various the STB Client and Prepar3D commands work;
- **“AI Views”** configures how the AI View commands provided by the STB Client behave.
- **Deployment** is used to activate and deactivate additional STB components. These components are also installed and activated automatically by the Configuration Wizard.

- **“Statistics”** describes the version of the STB Client and Prepar3D communications interface, plus “activity” counts from Prepar3D;

After changes are made in the settings notebook, they are activated by clicking the **“OK”** button. Alternatively, changes are discarded by clicking the **“Cancel”** button.

Settings are permanently stored on disk by clicking the **“Save”** button. That includes all changes you have made in the settings notebook, whether they have been activated or not.

When the STB Client is started, saved settings are automatically loaded. They may be manually loaded at any time by clicking the **“Load”** button, which replaces any changes made in the settings notebook. The loaded settings must be activated by clicking the OK button.

The **“Reset”** button is used to restore default settings. The restored settings replace any changes you have made on the notebook, and must be activated by clicking OK<sup>5</sup>.

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<sup>5</sup> Restored defaults are not automatically saved. If you are happy with them, you must save them if you want to use them next time.

## Appendix B: Locating Folders

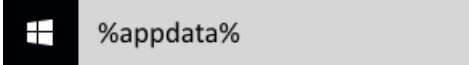
### ***SuperTrafficBoard Installation Folder***

When you installed the STB Client you were offered the option of specifying the installation path to use. If you choose to ignore this and use the default installation, you will find the STB Client in:

C:\Program Files\FlyingWSimulation\SuperTrafficBoard Client V5 for Prepar3D-V5

### ***Application Data Folder for STB Client, STB Data Server and Prepar3D***

#### **Windows 10**

1. Enter “%appdata%” in the “Search the web and Windows” box next to the Windows Start icon:  
The image shows a close-up of the Windows Start menu search bar. On the left is the Windows logo icon. To its right is a search bar containing the text “%appdata%”. The search bar has a light gray background and a magnifying glass icon on the right side.
2. The application data folder opens in a new window;
3. Navigate to the application specific folder:
  - a. **For Prepar3D:** click “Lockheed Martin” followed by “Prepar3D v5”;
  - b. **For STB Client:** click “FlyingWSimulation”, then “SuperTrafficBoard V5 Client” and finally “Prepar3D V5”;
  - c. **For STB Data Server:** click “FlyingWSimulation”, then “SuperTrafficBoard V5 Data Server” and finally “Prepar3D V5”;

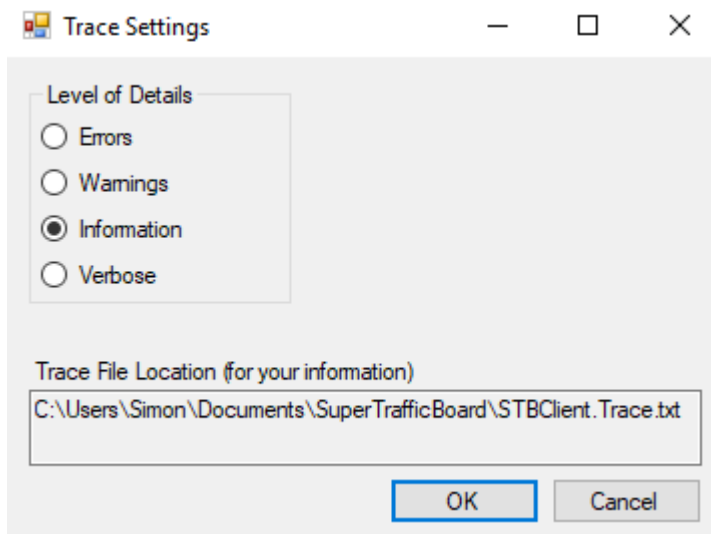
## Appendix C: Troubleshooting

### ***Collecting Trace Information for the STB Client***

A trace is very helpful for the STB support team when analyzing any problems you may experience. Tracing at the highest level (*Verbose*) may have a performance impact especially so in database compilation, therefore we recommend you only set the highest level when requested by us to do so.

### **Changing the Trace Level**

From the “Help” menu, select “Trace”:



The least level of trace information is generated by the “**Errors**” setting, where only error events are recorded to the trace file. Subsequent levels collect more details on top of those listed above them, so “**Warnings**” collects both warning events and error events. “**Information**” is the recommended default.

To make a change to the trace level, select the desired level from the list and click OK. Depending on the User Access Controls configured on your PC, you may be asked to allow the application to make the change.

When investigating a problem, we will typically ask you to select “Verbose” level.

### **Locating the Trace File**

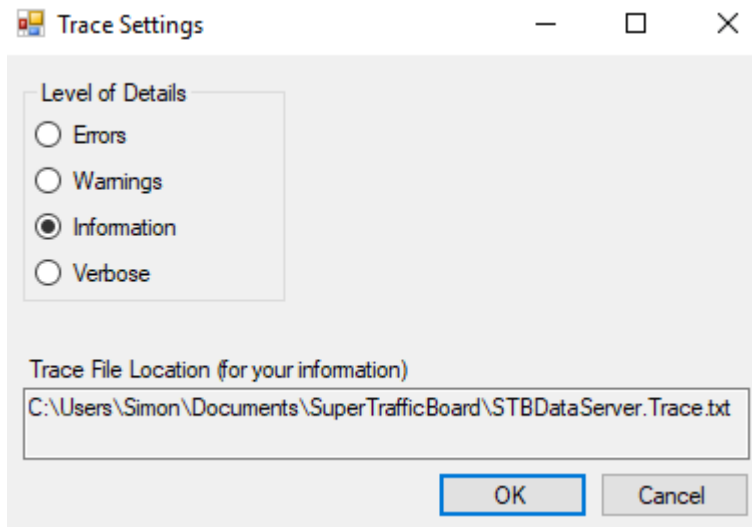
Once the problem is reproduced, close the STB Client and locate the trace file. The location of the trace file for the STB Client is “My Documents\SuperTrafficBoard\STBClient.Trace.txt”.

## ***Collecting Trace Information for the STB Data Server***

Trace information may also be collected for the STB Data Server to aid problem analysis. The procedure is very similar to that for the STB Client described above.

### **Changing the Trace Level**

Click the “Trace Settings” button on the “Data Server” tab:



For further details regarding the content of the above dialogue, see “Changing the Trace Level” on page 94.

### **Locating the Trace File**

Once the problem is reproduced, close the STB Data Server and locate the trace file. The location of the trace file is “My Documents\SuperTrafficBoard\STBDataServer.Trace.txt”.

## Appendix D: Frequently Asked Questions

**What do I do about the loss of Prepar3D sound when the STB Client is the active window?** This should never happen, but if it does check the Prepar3D Settings:

- In Prepar3D, click the "Options" menu, followed by "Settings" and then "Sound".
- The Prepar3D settings window is displayed. If the sounds settings are not shown, click "Sound" in the list of settings on the left hand side.
- Ensure "Mute on Lost Focus" is unchecked.

**Why do some aircraft never push back from the gate?** Due to various reasons associated with both the "seen" and "unseen" inner workings of Prepar3D airport scenery design, occasionally a few AI aircraft are "forgotten" by Air Traffic Control. The STB Client can be configured to mark these as "delayed" departures, and to try rescuing them. See **Rescuing Aircraft Stuck at a Parking Spot** on page 64.

**Why do the AI View commands sometimes seem to "freeze" after showing the chosen aircraft?** View AI allows you to look at any AI aircraft, including those at a distance from your current (user aircraft) location. The further away you wish to look, the harder the Prepar3D engine has to work to render the view, including the aircraft itself, sky and ground. Sometimes it may take several seconds for the simulator to "catch up" and completely render the new scene. While this is occurring, aircraft can sometimes disappear below a "green soup" or blurred ground textures, but this typically clears after a short delay.

**Is there a limit to the number of active aircraft the STB Client can track in Prepar3D?** Yes. Prepar3D limits support to 1000 active AI aircraft. If your traffic density is more than that, the aircraft are still shown STB but the status will be fixed at "No Data".

**When I try to "View AI", I get a random aircraft or a view of my user aircraft.** This suggests a problem with either your Prepar3D Camera Configuration or the STB Client settings. Check your configuration using the *Camera Advisor*, available on the "View/Chase AI" tab in the STB Client settings notebook.

**I have the "Show Today's Data Only" option enabled. However, the STB Client still shows flights for yesterday or tomorrow when I select "All Airports". Why?** The "All Airports" takes precedence over "Show Today's Data Only", and therefore all data is shown for all airports.

**Sometimes when I move down to the last page, some flights from the previous page are still shown.** When there are just a small number of flights on the last page, the STB Client scrolls down by less than a page of data to keep the last displayed page full.

**I've selected Listen to AI ATC, but I can't hear anything!** There are (at least) two possible causes:

- The user aircraft is in slew mode that disables sound.
- You are too far away from the selected AI aircraft when it is on the ground. Use Follow or Shadow AI to automatically move the user aircraft closer.

## Appendix E: Compatibility with Other Products

Unless otherwise noted here, all other Prepar3D add-ons are expected to be compatible with STB. Please check:

<https://forum.simflight.com/forum/119-flying-w-simulation/>

for the very latest information if you are having problems.

### ***AI Smooth***

AI Smooth has a facility for monitoring the user aircraft, and pushing other AI aircraft in the vicinity of the user aircraft out of the way. This is done to avoid landing conflicts between the user aircraft and AI aircraft.

When the STB Client commands are used that change the position of the user aircraft dynamically (e.g. Shadow AI, Follow AI and Chase AI), this can confuse AI Smooth. Noted behaviour includes the AI aircraft subject to the command entering a limited slew state where it no longer changes altitude above a certain minimum.

If you experience this problem, the user aircraft management in AI Smooth can be temporarily disabled through AI Smooth application settings.

### ***Third Party Aircraft Add-ons***

Certain third party aircraft add-ons define their own cameras in the **aircraft.cfg** file. These take precedence over the Prepar3D application data **camera.cfg** used by STB for the “View AI” command. If the add-on uses the same “**HotKeySelect**” as STB is trying to use, the STB Client View AI command will show something other than the desired AI aircraft (typically the user cockpit).

Aerosoft Airbus X Extended is one example of a third party aircraft add-on where some users have experienced this View AI problem.

**The situation can be resolved by:**

- Review the camera.cfg file in the FSX application data folder. For assistance in locating the folder, please refer to “Application Data Folder for STB Client, STB Data Server and Prepar3D” on page 93.
- Locate the camera entry with GUID “{75A8357E-AB58-4294-9416-90C73FAFDD90}”. This is typically “[CameraDefinition.010]” with “Title = AI Planes”. This camera is used by STB for “View AI”.
- Note the value of “HotKeySelect” associated with this camera. It is usually found at the end of the definition, and STB typically uses “HotKeySelect=5”.
- Review the aircraft.cfg file for your add-on aircraft. If you locate any camera definitions using the same HotKeySelect as STB (e.g. HotKeySelect=5):
  - a. Make a backup copy of the aircraft.cfg file
  - b. Either delete the HotKeySelect statement or change the value.
  - c. Once complete, save the file and restart both Prepar3D and the STB Client.



## Appendix F: Uninstalling the STB Client or STB Data Server

- Please ensure Prepar3D is NOT running before commencing this procedure;
- In the Windows 10 Search box, enter “Add” and then select “Add or Remove Programs” from the pop-up list;
- To uninstall STB Client, locate “SuperTrafficBoard Client for Prepar3D-V5 version 5.x.xxxx.xxxxx” and click the entry to start the install process;
- To uninstall STB Data Server, locate “SuperTrafficBoard Data Server for Prepar3D-V5 version 5.x.xxxx.xxxxx” and click the entry to start the install process;
- During the uninstall process, features unique to SuperTrafficBoard are deleted automatically. Some features cannot, as the configuration may be required by other Prepar3D add-ons. These include:
  - View AI Camera Configuration in the global camera configuration file (%appdata%/Lockheed Martin/Prepar3D V5/camera.cfg);
  - SuperTrafficBoard Common Add-on: This can be removed manually by deleting the “SuperTrafficBoard V5 Common” folder in “My Documents\Prepar3D V5 AddOns”;
- If you wish to remove these features also, you will need to do this manually. Backup copies of simulator files changed in the original installation process can be found in your My Documents “SuperTrafficBoard”;
- Sometimes files are left behind by the uninstall process. If you are concerned by these, you can delete them manually from the following areas:
  - STB Client or STB Data Server Installation Folder;
  - STB Client or STB Data Server Application Data Folder;
- For assistance in locating the above folders, see “Appendix B: Locating Folders” on page 93;

## Appendix G: Acknowledgements

- *The Make Runways utility is included with STB by kind permission of Pete Dowson.*
- *Links to the “Lorby-Si Add On Organiser” are included by kind permission of Oliver Binder.*