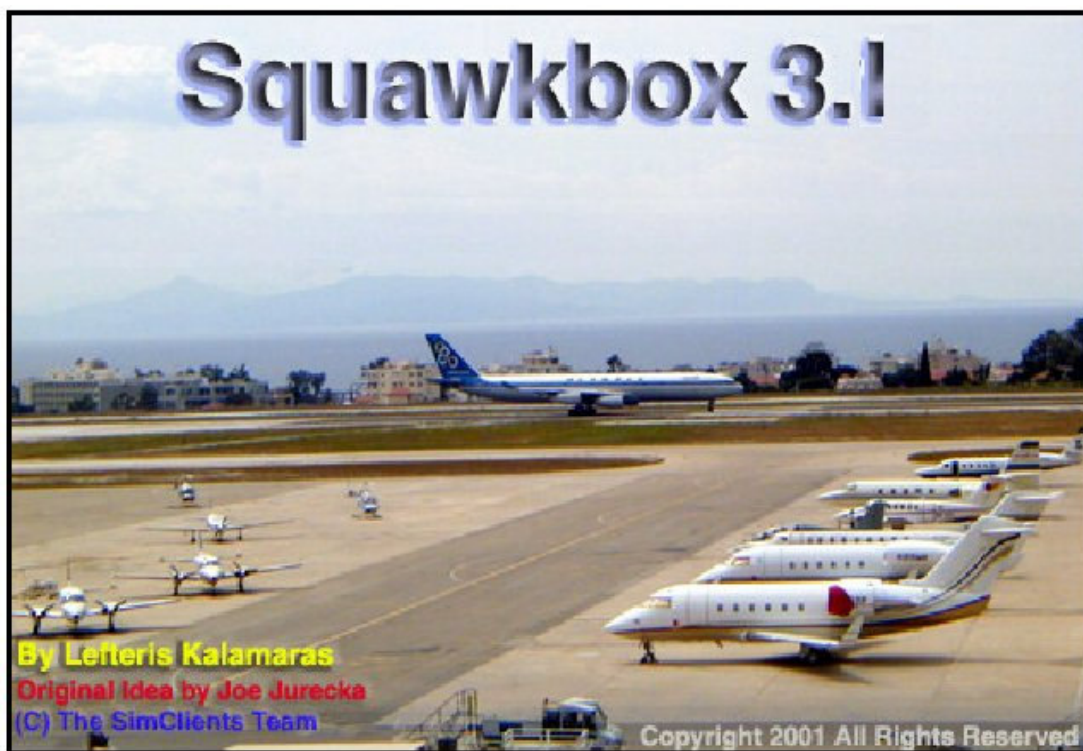


SquawkBox v3.1 for Fly! II

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This is the Pilot's Operating Handbook for Squawkbox v3.1 for Fly! II. If you haven't done so, please read the information contained in the "*SquawkBox31_readme.txt*" file **carefully** before you continue with this manual.



In this manual, we have assumed you have already followed the installation instructions and SquawkBox is installed properly on your machine. If this is not the case, please go over the installation instructions once again and make sure you have followed them properly.

Introduction

Squawkbox is an application to enable pilots who use the Fly! II Simulator to participate in the online Pilot/ATC world – in other words, to Fly! online, using either VATSIM, or IVAO, or any other future online flying client/server environment that supports the PC/SB communication protocols (such as private flying groups in Internet Cafés etc.)

In order to use Squawkbox, you must first have obtained a valid user ID and Password from one of the online networks (VATSIM/IVAO). In order to do so, please visit www.VATSIM.org or www.iviao.org to obtain a user ID and password. Keep in mind that the users ID/password that you receive are valid only for the network you received them from – they are not interchangeable.

Start

Squawkbox installed as a Fly! II DLL, which means it runs as an integrated Fly! II window. In order to run Squawkbox, you must run Fly! II. To verify that the Squawkbox DLL is installed, press Ctrl-T inside Fly! II and check to see that, in the window that appears, there is a line for Squawkbox, with a version number (3.1).

In order to start Squawkbox, press Ctrl-Alt-F10. That is the hotkey combination to popup the main Squawkbox window, at any time. **You can also select the “SquawkBox” item in the “Plugins” menu in the Fly! Menu bar.** (You will see later that you can sometimes hide this window from view. To bring it back to the foreground, press Ctrl-Alt-F10) or select again the menu. This window should appear:



This is the main Squawkbox window. The main window is resizable, by placing the cursor on the bottom-right corner, and dragging to desired size. It can also be minimized, by clicking the minimise button on the top right corner.

The main window contains a Menu bar on the top portion, where you can select most of the Squawkbox commands. It also contains a text input area, for your text communications with ATC and fellow pilots, as well as a text reception area, where any received communications are displayed, in the order received. There are scrollbars on the bottom and right side of the main window, to allow the user to navigate to the appropriate portions of the text reception area, should the received text exceed the allotted space.

You will find also, a drop menu that allows quick ATC switching, and a second one that simplifies sending private messages to pilots who are in range.

The slider object is designed to adjust the altitude of other aircraft in Fly! II, as other sims (such as Microsoft Flight Simulator) have airport altitude differences. When your aircraft is on the ground, you can use it to visually make other aircraft's wheels touch the taxiway. At the same time, your own altitude as seen by other pilots is modified in the opposite direction (the altitude sent to the server).

Below the input text field, you will see the automatic weather update check box. If checked, every 5 minutes, Squawkbox requests the nearest airport METAR from the server and imports it into Fly! II.

The Menu Bar

The Menu bar consists of the following menus and menu items:

Connection

- Connect
- Disconnect
- Exit

This menu controls all connectivity with the Squawkbox Servers. The Connect option opens a Connect window to connect Squawkbox with the Server (this is explained later in the manual). The Disconnect option is used to disconnect from the Server, if connected. The Exit option closes Squawkbox and exits.

ATC

- Directory
- File Flight Plan
- Resend Flight Plan

This menu controls ATC functions. The Directory option opens an ATC Directory window, to allow selection of ATC. The File Flight Plan option opens a Flight Plan window, to allow the user to select, produce and file a flight plan for their online trip. The Resend Flight Plan option is used to resend an existing flight plan, in case ATC requests it (e.g. in cases of Server lag).

Multiplayer

- Off
- 5
- 10
- 20
- 40
- 100

This menu controls Multiplayer functionality. The menu options select the range (in Nautical Miles) that other connected aircraft in the network will appear. The older your PC (in CPU, memory, etc.), the lower your settings should be, to prevent stuttering and frame loss. **Caution:** Use 100NM at your own risk, as a busy environment with many aircraft flying in that range will suddenly bring your simulator to a screeching halt.

Help

- About...

This menu brings up information about the Squawkbox Version number, as well as its copyright, authors, etc. In any support issues, please note the version number, and include it in your message.

Connection with a Server

In order to connect to a Server, make sure that you have established a valid Internet connection.

REMARK : *It's very important to load the desired Fly! II Aircraft before attempting connection to the network. This avoids transponder mode detection problems (from cockpit). If you really need to change the user aircraft after connection, please disconnect / reconnect after aircraft change and resend your flightplan.*

Bring up the Connection Window, by going to the **Connect Menu** and selecting the **Connect** menu item. The connect window appears along with the Aircraft selection window.

You have to select your aircraft type before making the connection.

The *connection* and the *aircraft selection* windows should appear :



First, from the aircraft window, select the aircraft type that will be seen by ATC and other pilots.

Then, select the appropriate server IP address from the Drop Down menu, by clicking on the triangle. Please note that in the default configuration file, VATSIM IP Addresses are separated from IVAO IP Addresses by a separator line. In order to add your own IP addresses for newer or unlisted Squawkbox Servers, please refer to the **INI Files & Settings** portion found later in the manual.

Select an appropriate call sign, and fill out your Pilot Registration ID, Password, First and Last Name, and Home Base information. The Pilot ID/Password should have been given to you when you applied to the appropriate organisation.

Note: It is customary within VATSIM / IVAO or any online network, that the user keeps the same call sign, not only throughout each flight (duh!), but also every time they fly online. That way, they are more easily recognised by ATC, as well as peer pilots. This, however is not enforced, but is strongly recommended.

REMARK : *These registration and IP fields are saved in the Fly.ini for convenience.*

Once you've filled out all your details, hit the OK button. You should hear an audible alert (Ding-Dong). The main window text reception area will start filling with information about the server you connected to, as well as other pertinent stuff.



NOTE: Before connecting to an online network, be SURE that you've located your aircraft OFF any runway, as it is very disturbing for other users to see you suddenly popup in the middle of their flight path...

Check also that the transponder is always in StandBy mode on the ground.

If *Auto WX* option is checked and the current airport has METAR, then you'll see the trace of METAR import and filtering.

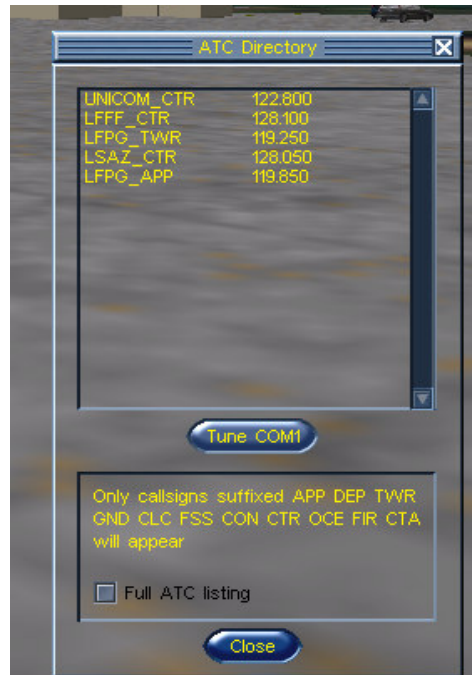
If you see some message like "Unknown AI type ~XXXX", it means that an external aircraft in range has an unknown CSL type (i.e. the corresponding file does not exist in the *Sbox* folder). In this case the corresponding default aircraft is created.

Communicating with an ATC

Usually, when you Fly! online, you want to do so in an area that is controlled by one (or more) Air Traffic Controllers.

You have 3 ways of connecting SquawkBox to an ATC :

1. Open the ATC window through the “ATC” menu, and select one. When the window opens, it will be populated with the active controllers in your area (or none, if there’s none active),



NOTE: If you want to see ALL connected controllers in your area, check the “Full ATC listing” checkbox. This will enable viewing of Supervisors, Observers, etc.

2. Tune the ATC frequency on the radio 1 standby freq and switch it to the active freq. If the new frequency is one of the reachable ATC, it will be switched automatically. This way is more realistic!
3. Select one ATC in the drop menu labelled “**Active ATC**” on the main SB window.

To be sure that an ATC connection request has been sent to the server, you should see this message in the history list : “*Switched to LFPG_TWR on 119.85 (expect ATIS)*”. Also on the main window, the “active frequency” field should show the new ATC frequency.

ATIS information received from the ATC usually includes local QNH, runway in use, as well as (if the controller uses voice) Voice client IP and Channel information. This is required for the automatic voice switch to work properly.

NOTE : When you first connect to a server, the active frequency is set to UNICOM on 122.80.

Voice support

Depending upon which network you have chosen for your online flight, you might use *TeamSpeak* on IVAO, *Roger Wilco* or *Advanced Voice Client* on VATSIM.

Automatic channel switching is now supported by Squawkbox for all of this software when you connect to a new ATC (that supports voice !).

If you are using *TeamSpeak*, you have to launch it yourself in Windows. There is nothing to do with RW or AVC. Read the “*SquawkBox31_readme.txt*” file for the installation process for TeamSpeak support.

REMARK : The automatic voice channel switching only works correctly if the first ATIS line send by ATC contains the voice server information and this information is actually correct.

Flight Planning

As in the real world, Air Traffic Controllers would like to see what your intentions are before they clear you for any flight trip. In order to declare your intentions, you need to fill out a flight plan. To do so, bring up the “*Fill Flight Plan*” menu item under the ATC menu.

This will bring up the Flight Plan window, where you can fill out all details and information regarding your intended flight.

The screenshot shows the 'Flight Plan' window with the following fields and values:

- TCAS:** ☐
- Select Aircraft:** Cessna : C172 Skyhawk
- Suffix:** G
- Flight Plan Type:** ☒ VFR, ☐ IFR, ☐ S/VFR
- Callsign:** E-ROLB
- Aircraft Type:** C172
- True Airspeed:** [empty]
- Departure Point:** [empty]
- Departure Time:** Est. 1258, Act. 1248
- Cruise Altitude:** [empty]
- Destination:** [empty]
- Time Enroute:** Hours 0, Minutes 0
- Remarks:** [empty]
- Fuel onboard:** Hours 0, Mins. 0
- Alternate Airport:** [empty]
- First Name:** Roland
- Last Name:** Rando
- Home Base:** LFOB
- Num. onboard:** [empty]

At the bottom, there is a warning: "Not to be used for Real World Flight Planning" with a yellow warning triangle icon.

REMARK : If you have already created a Fly! flightplan or imported one (eg : from VolNav), the Squawkbox flightplan will be automatically filled with all the useful values; even all the waypoints will appear in the large input field !

If not, you will need to fill out the following information in your Flight Plan:

- Flight Plan Type. You can select VFR (visual flight rules) , IFR (instrument flight rules) or S/VFR (Special VFR).
- Your aircraft's True Airspeed.
- Your departure Point. (The Airport you're located at).
- Your Estimated Departure Time
- Your Cruise Altitude e.g. 8000 (or Flight Level, as in FL230).
- Your Destination Airport
- The calculated Time Enroute (Hours / Minutes)
- How much Fuel you have onboard
- Your Alternate Airport
- Number of Passengers onboard

Also, you need to fill out (in the large text area) your flight plan Waypoints (as detailed as possible) and in the smaller text area, any remarks you might have for the controllers to see (I usually write “Fly! 2, Squawkbox v3.1”).

Once you've filed your Flight Plan, you're ready to go. You need to ask ATC for clearance and further instructions. (This is beyond the scope of the Squawkbox manual).

NOTE: Anytime the Air Traffic Controller requests that you resend your Flight Plan, you need to do so by going into the ATC Menu and choosing “Resend Flight Plan” – this will alleviate the need to refill it from scratch.

Multiplayer

Squawkbox allows you to view other online pilots as they’re flying around, whether they might be flying using MS FS98, FS2000, Fly!, Fly! 2, or any other Squawkbox-enabled Flight Simulator. These aircrafts are presented based on the aircraft type their pilots have selected in their flight plan. Fly! II is somewhat limited in the models it can present, so anytime another player connects selecting an aircraft Fly! II does not have in its database, that aircraft will be presented as a “engine type default” aircraft (see below).

To select the range that Squawkbox will be displaying aircraft, you can choose from the Multiplayer menu the maximum distance (in Nautical Miles) any online aircraft can be from your own and still be displayed. If you select “Off” you will not be shown any other multiplayer aircraft. NOTE: Please be careful with this option. A range that’s too high for your PC’s capabilities will severely reduce your Frame Rates (fps) and hinder your flying experience.

A cool thing to do while other aircraft are in your area is to use the V key to switch to their cockpit views; then choose the FlyBy camera.

Squawkbox use the *.sbx files in the “*Sbox*” folder to create other aircraft in Fly! II. The name of the *.sbx is the name of the CSL type without the ~.

Of course, you are free to modify the NFO name associated with a CSL type. But remember that you can't change the name of the *.sbx at any time !

Here is the corresponding POD and NFO files used to represent CSL types in Fly! II, with this 3.1 release :

~CSL / .sbx name	POD name	NFO name
A300	AirFrance7375.pod	AIRFRANCE7375
A340	B747_3P	747_3
AT72	Dhc6_Plus	DH6
B727	B727_200a	B727200
B737	Boeing 737-500 V10	B737
B744	B747_3P	747_3
B747	B747_3P	747_3
B757	BritishAir757236v3	BritishAir757-236
B767	Britannia757204	Britannia757204
B777	BritishAir757236v3	BritishAir757-236
BE10	B1900D_V6	TC1900
BE20	TRI3	TRI3
C172	Flyhawk	FLYHAWK
C206	TRI3	TRI3
C402	Java	TRI2
DC9	DC930F2	DC930F2
DC10	DC930ROTW	ROTWDC930F2
DH8B	Dhc6_Plus	DH6
DHC6	Dhc6_Plus	DH6
F14	EUROFIGHTER TYPHOON V2.0	EF2000
F16	EUROFIGHTER TYPHOON V2.0	EF2000
F50	B1900D_V6	TC1900
H25B	TRI4	TRI4
H31	BELL407	BELL407
HM11	Cordouan_V1	CORDOUAN
JS31	emb145v2	EMB145
L145	EMB145LH	EMB145LH
P28A	Pa28 *.epd	PA28_F2
P32R	Tbmabt_V2	TBMABT156
PA34	Java	TRI2
PA46	Harvey	TRI1
PC12	Pilatus	PILATUS
SA341	AS-365N2v100	AS365N
SF34	saab340_beta2	Saab340b
ST75	STAGD17	Staggerwing
def_jet_acft	B7073Bd	B707300
def_piston_acft	Pa28 *.epd	PA28_F2
def_plannor_acft	STEMME	STEMME
def_turbin_acft	TBM700_V1	TBM

If you miss some models, please search on the AVSIM library, SIMVOL library (ROTW aircrafts) or F2FDesign Web sites to download them.

Transponder mode

When ATC request it, you have to switch your transponder to **Mode-C** or **Standby**. Do it directly on the cockpit transponder as usual (as in real life !).

You can verify that the correct mode has been detected by Squawkbox, looking at the “*Transponder mode*” field, on the main window.

Note that the Hawker transponder is in **Mode-A** at start up. Please switch it to **Standby** before connecting. **Mode-C** does not exist in this transponder model.

Special “Dot” Commands

Squawkbox allows for some special commands to help with the automation of some tasks that would otherwise require a lot of text writing, or even some controller intervention. These “dot” commands (they all start with the “.”) in Squawkbox are the following:

.msg <callsign> (obsolete – use the drop menu instead)

This is used to send a private message to another online user. Private messages do not appear on the controller’s screen – they are passed directly from the server to the user specified.

NOTE : You can now use the “*Pilot private Msg*” drop down menu to prepare this special command quickly.

.atis <controller callsign>

This is used to receive ATIS information for a particular controller. It’s the same as if you used the ATC Directory Menu Item and Tuned to a particular controller, except it will not tune your COM1 to that controller’s frequency.

.acars <airport ICAO code> OR .mt <airport ICAO code>

This is used to request and receive the latest METAR for the specified airport, if it exists. METAR will be returned in the format that exists on the server. Then it will be filtered and imported into Fly! II.

.ping <callsign>

This is used to measure PING times from the user to another user. It is a good measure for server lag, or to see if another user is lagging out.

.rw <IP/channel> (obsolete - automatic)

This command changes Roger Wilco servers (by providing an IP address or a hostname), as well as a channel to connect to. Please read the Roger Wilco segment for more information.

.rwk

This command kills the existing Roger Wilco application. Please read the Voice Support section for more information.

INI file Settings

The first time you activate Squawkbbox, a special section will be created inside your fly.ini file, under the heading :

[Squawkbbox]

There, your username, password, and other settings will be stored, so that you won't have to select them every time you run Squawkbbox.

The “*AutoPopup=1*” make the SB main window to popup when a private message is received.

All the other parameters are managed directly by Squawkbbox, so you don't have to tune them by editing the fly.ini file.

SquawkBox Network IP Addresses

In order to add your own VATSIM / IVAO IP addresses, you need to go into the UNtemplates folder of Fly! II and edit the SBConnect.win file using Notepad, or any other text editing utility. You can add each IP address by adding the following three lines at the appropriate place, as in the example here:

```
<item>  
ip1_  
194.143.178.141
```

Do a search for the first “ip1_” line, and add sequentially. Note that VATSIM IP addresses come after the “<sepr>” line, and IVAO IP addresses come before the “<sepr>” line.

HAPPY ONLINE FLYING!!!

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Contact Info

For any support, you can post in www.avsim.com on the "Fly! General forum" for english language or in fly.simvol.org in the "Vol en réseau" forum in french language (easier for me ;-)).

Thank you for reading this far,

Many thanks to :

- *Lefteris Kalamaras* to allow me continue his fantastic work.
- The SB 3.1 Beta tester Team.
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- Roland Herblot -
- 1st June 2004 -
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