

SquawkWin

Pilot Client For Online Simulation

A free software created and designed by **Karim BENNEGADI (Ben)**

Version 2.0.0

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I. Introduction

SquawkWin is a pilot client for online simulation. It works either with FS2002, FS2004 and FSX

The main features are :

- Multiplayer peer-to-peer with several aircrafts packages (like Project AI) Support
- Real transponder fonctionnality
- Local weather generated from METAR
- F.A.A or I.C.A.O Flight plans choice
- Automatic true time and date settings
- AI Bridge functionality (to drive external TCAS or Radars)

II. Installation

The pilot client is available as an auto-installable executable software.
After having installed Squawkwin, all you need to do is to run FS.

III. Quick connect and first steps

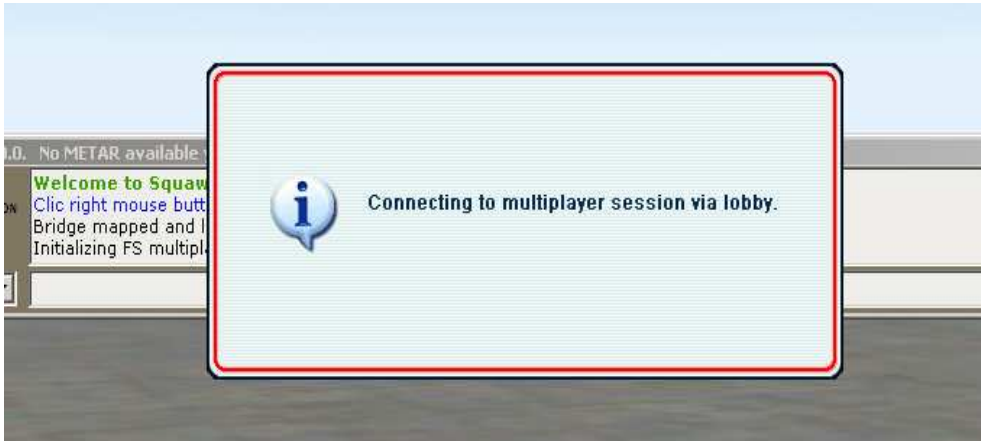
IMPORTANT: If you are flying with Flight Simulator 2002, you have to host a multiplayer session before launching SquawkWin. You don't need to perform this step if you are flying with FS2004 because FS2004 does use a software feature called "Lobby".

1. Launching SquawkWin

You will find a new entry in your FS menu. Select "SquawkWin" and click "Open".



With FS2004, a multiplayer session will be launched automatically :



A new window fully integrated in FS Window will appear. This is the SquawkWin user interface :



2. Connecting to Network

Set your mouse over the Squawkwin's text window and click right. The SquawkWin menu will appear.



Select "Connect to Network...", then choose your favorite Network. The network data are loaded from the Internet to show online servers.

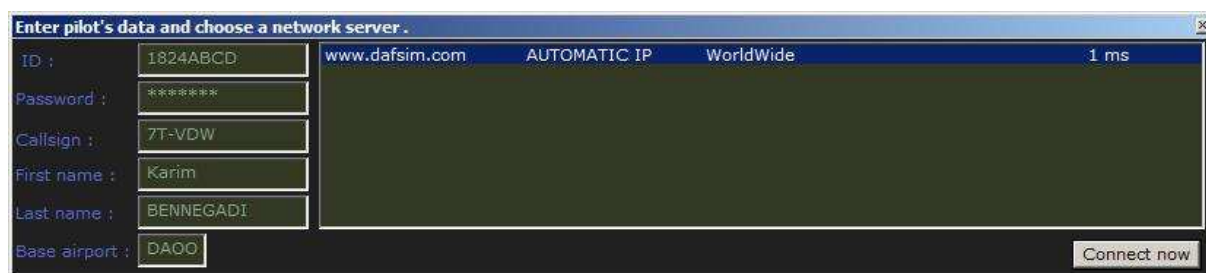
This operation is done only if the last load has been done since more than one minute, otherwise the locally cached data will be used (to avoid servers overhead).

If you don't want SquawkWin to load fresh data (and loose time computing their ping for instance) and to reuse quickly the last cached information, maintain the "SHIFT" key pressed while you select your network you want to connect to.

On the other hand, if you want to force re-loading the data from the net even if the last load has been done since less than one minute, maintain the "CTRL" key.

A new window will appear where you can enter your network information :

Pid, password, callsign, first name, last name and your base airport.



The screenshot shows a window titled "Enter pilot's data and choose a network server." with a close button (X) in the top right corner. The window is divided into two main sections. The left section contains several input fields with labels and values:

ID :	1824ABCD
Password :	*****
Callsign :	7T-VDW
First name :	Karim
Last name :	BENNEGADI
Base airport :	DAOO

The right section is a list of network servers with the following columns: Server Name, IP Address, and Ping Time. The first server listed is "www.dafsim.com" with "AUTOMATIC IP" and a ping time of "1 ms".

Server Name	IP Address	Ping Time
www.dafsim.com	AUTOMATIC IP	1 ms

At the bottom right of the window, there is a button labeled "Connect now".

Choose a server then click on **“Connect now”** or double click the server’s line.

If everything is ok, you should be connected to the network server.

NOTE : You can connect to a personnal FSD Server by just entering the IP address. Then click **“Connect now”** to join this server. Please contact the author to get a version with this feature.

3. Filling a flight plan

a. F.A.A Flight plans

Type	Aircraft identification	Aircraft type / Special Equip.	True airspeed	Departure airport	Departure time (Zulu)	Cruising altitude
<input checked="" type="radio"/> VFR <input type="radio"/> IFR <input type="radio"/> DVFR <input type="radio"/> SVFR	7T-VDW	R22 <input type="checkbox"/> TCAS	70 Kts	LFPO	Proposed: 9:30 Actual: 9:35	2000 ft / FL
Route of flight LOCAL FLIGHT						
Destination airport LFPG		Time enroute HH: 0 MN: 45		Remarks		
Fuel onboard HH: 2 MN: 30		Alternate airport NONE		Pilot's information First name: _____ Last name: _____ Home base: LFPG		Number aboard 2

This flight plan is based on real F.A.A Flight plans.

- When you fill all fields, click on “submit FP” to validate your flight plan.
- “Re-Load” loads your last flight plan.
- You can also “Save” or “Load” a flight plan file. SquawkWin Flight plan files have .swp extension
- You can Import an FP from FSNavigator, by clicking the “Import FP” button. Of course, you should have exported previously that FP from FSNavigator using “WindowsINI” format.

b. I.C.A.O Flight plans

If you have set “I.C.A.O Flight plans” in your main setup dialog (see ...), you can have an I.C.A.O Flight plan form instead of the F.A.A form.

I.C.A.O Flight Plan (used for flight simulation only !)

<<= (FPL Aircraft Identification AFR734 Flight Rules V=VFR Type of Flight <<=

Number Type of Aircraft BE58 Wake Turbulence Cat Equipment <<=

Departure Aerodrome TNCM Time Proposed 10 45 Actual 10 50 <<=

Re-Load
Load FP
Save FP
Submit FP

Crusing Speed 400 Kts Level 350 FL <<=

Route

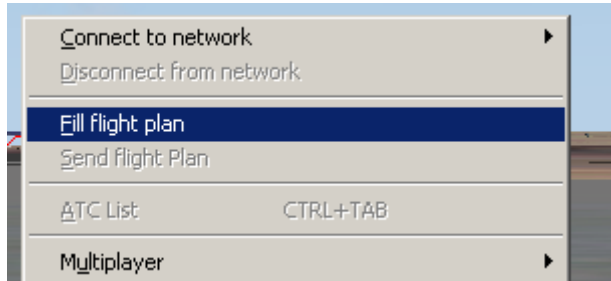
Destination Aerodrome LFPG Total EET 1 0 ALTN Aerodrome Fuel Onboard 2 0

Other Informations NONE <<=

You will find the same fields as the F.A.A flight plans. Many fields like “Type of Flight”, “Wake Turbulence Cat” or “Equipment” are not supported yet, but these fields will be implemented in a future version.

4. Sending a Flight Plan

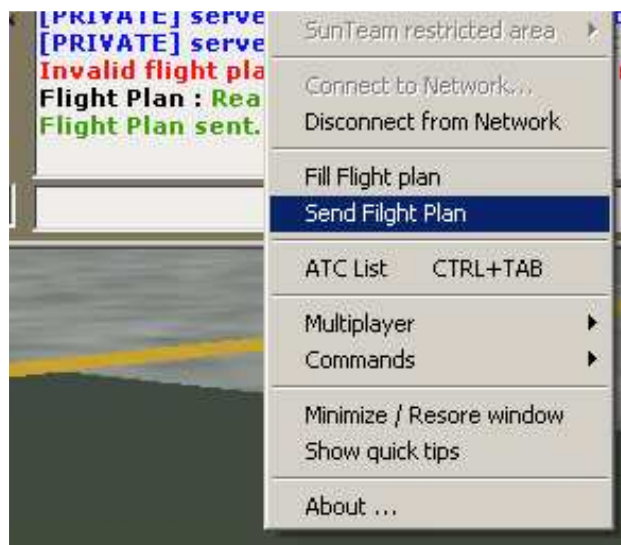
First, start filling a new FP by clicking the menu “Fill Flight Plan”, and then click “Submit FP” button



Squawkwin will inform you if an error occurred when filling your flight plan. If all fields are correctly filled, your flight plan is “ready to send”.

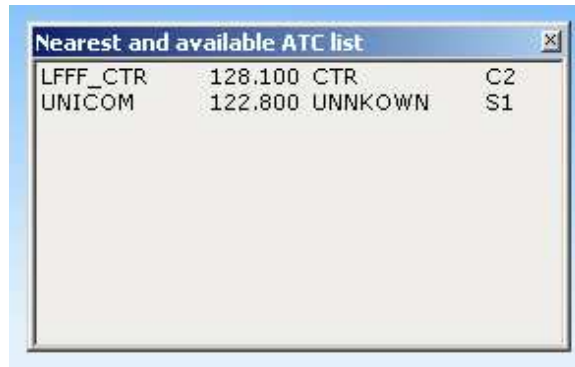


Send it now to the network by selecting “Send Flight Plan” in SquawkWin menu : This feature will allow you to prepare an FP and to send it later.



5. Contacting an Air Traffic Controller

Select “ATC List” or press on CTRL+TAB to show up the ATC List Dialog.



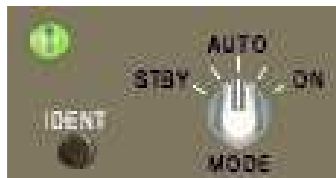
Double-click on the ATC to contact him. Your FS radio stack will be set automatically to the ATC Frequency and the voice program will be set also automatically to the ATC Channel. If your voice program isn't launched, SquawkWin will do it for you.

6. Hiding the SquawkWin Main Dialog

During your flight, you can hide the main Dialog by pressing SHIFT+TAB. By pressing again these keys, the main dialog will show up.

IV. SquawkWin Features

1. The transponder



The green led indicates if you are connected to network or not.

The "STBY" mode sets your transponder on "S" mode (Standby).

The "ON" mode sets your transponder on "C" mode (Active).

If your transponder is set to "AUTO", when you are on ground, the transponder is set automatically to "S" mode (Standby). Once airborne, your transponder will automatically be set to "C" mode (Active).

Squawk IDENT = Engage the "IDENT" feature of the transponder. Pilots shall operate the identification ("IDENT") feature only when instructed by ATC.

2. Monitoring two frequencies

SquawkWin enables you to monitor 2 frequencies by managing the FS radio stack.



Select “BOTH” to receive all communications on 124.75 and 122.80

If “COM1” is selected, you will transmit ONLY on 124.75

If “COM2” is selected, you will transmit ONLY on 122.80

3. Dot commands

a. .WX

Type .wx following by the ICAO airport code to get the Metar for this airport.

b. .X

To set quickly your squawk, type .x following by the squawk you want to set

c. Shortcuts

Squawkwin has three shortcuts on the right of its window : Lst, Cln and Msg.

Lst : List pilots near you

Cln : Clean the rich edit box.

Msg : Text shortcuts to transmit.

Atis : Will display the current ATIS

? : Displays a quick Help

4. Communications

a. Main Frequency

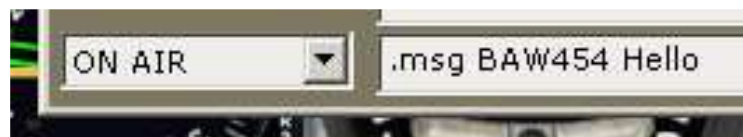
Select “ON AIR” in the combo box then type your message. It will be sent on the “COM1” frequency :



NOTE : By pressing UP arrow key on your keyboard, you recall the last message you have transmitted.

b. Private messages

You can send a first private message to a pilot by typing : .msg <callsign> <your message> like this :



You can also do it quickly by typing a dot following by the callsign and your message :



IMPORTANT : Do this only ONE TIME to initiate a private contact with a pilot. Then your contact will be added to the combobox.



If you want to contact him again, just select him in the combobox and type directly your private message.

Another way to select quickly the callsign you want to chat on private is to press CTRL and UP or DOWN arrow keys.



IMPORTANT: Typing a dot '.' followed by a callsign then no text, will try to remove that callsign from the contacts combobox (at the left of the edit zone)

You can get the same result by selecting a given callsign in the combobox then just typing a single dot '.' then pressing ENTER key.



V. Multiplayer Features

SquawkWin is using a new great way to see other traffic very smoothly with the peer-to-peer mode. The peer-to-peer communication is established only if other pilots are using SquawkWin or compatible softwares.

1. Technical notes

Firewall Setup :

Flight Simulator Multiplayer mode request opening two **UDP** ports **23456** and **6073**.

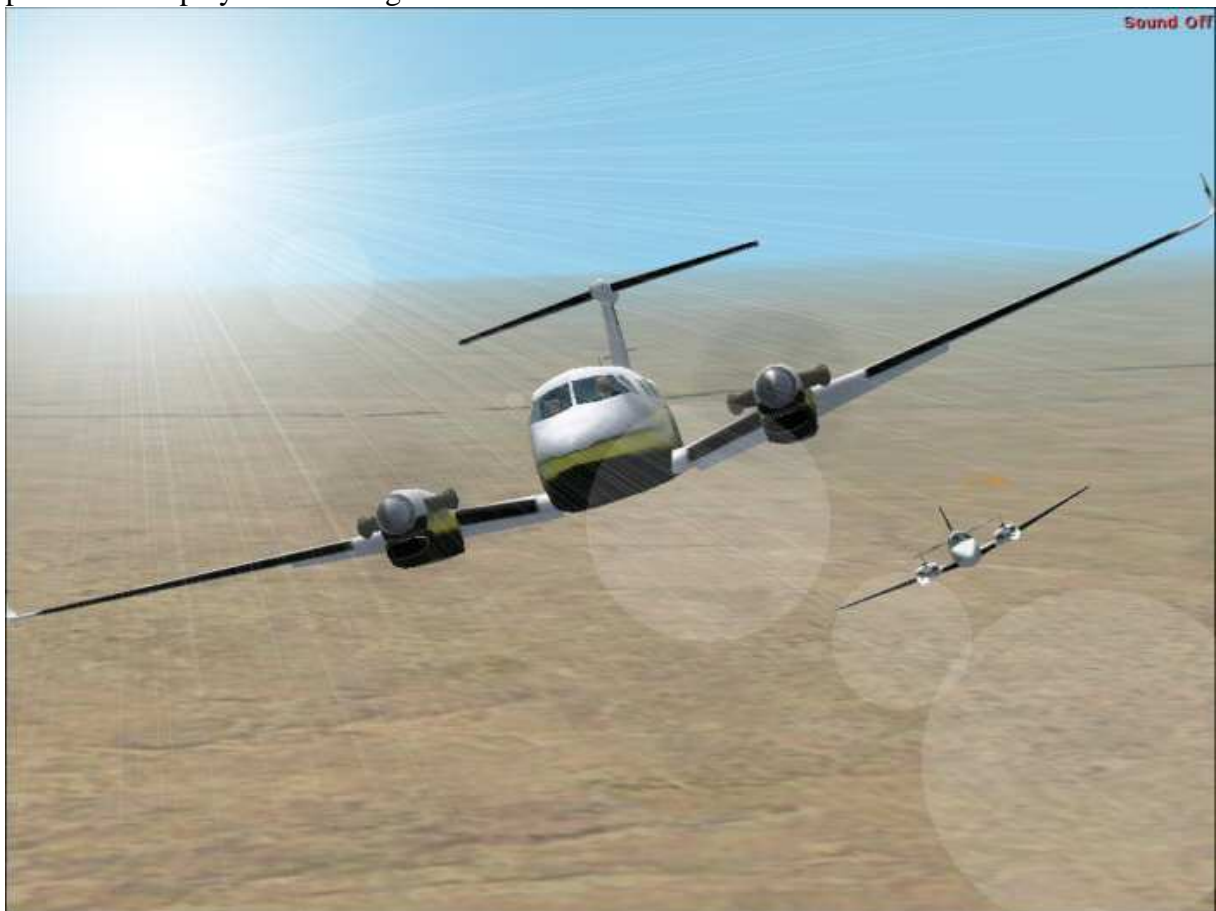
SquawkWin needs to use three **TCP** ports **55008**, **55009** and **55010** to establish a peer-to-peer communication and allow new features.

*Note : Do not confuse between **TCP** and **UDP***

We **advise** you to avoid launching programs which can slow your bandwidth (like emule or kazaa) in order to get the maximal performance to enjoy the multiplayer features.

Use FS and SW with a screen of 1024x768 pixels at least and 32 bits/pixel True color is the best.

Roger Wilco, TeamSpeak, AVC, and IVP voice softwares are correctly used, and SquawkBox planes are displayed with the gears.



2. Packages to see other aircrafts

To see the other traffic with their real livery, it would be a good idea to download and install some packages like those in Project AI Aircrafts on <http://www.projectai.com> or AI Aardvark Aircrafts on <http://www.ai-aardvark.com>, but **SquawkWin can use ALL the liveries you could install on your PC.**

Example : Assume you have selected a B737-400, if you connect as **KLMxxx** then everyone will see you as KLM plane B737-400. But if you connect the same plane with another callsign **AFRyyy**, then everybody will see you as an Air France.