



IvAi – IVAO Interface User Manual

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Manual developed with IvAi v0.2.0 in mind.

Developer:
Kenny Moens

Manual by:
Kenny Moens

Preface

Hello friends,

Back at the end of 1998, IVAO was created as alternative to the SATCO network. Its main goals were, and still are, to provide a friendly and 'fun' environment for Flight and Air Traffic Control simulation, while still maintaining it "as real as it gets" as much as possible.

Starting with a few dozen friends, IVAO has now grown to one of the biggest flight simulation communities in the world, with nearly 45000 members. During these past 6 year, numerous people have helped build IVAO to what it is today. Great work has been done, providing many services to our members, both at the IVAO headquarters level, as well as in the various divisions that are part of IVAO.

Now we've come to a new milestone: the creation of a new software-suite: replacing the glorious, but somewhat outdated, ProController and Squawkbox, by a new generation of software. With great pride, I'm happy to announce the availability of IvAi, the IVAO Interface. The part that makes a tower view, multiple radars, ... possible.

Many thanks to all the people who made all this possible. Let's make the best and oldest network, IVAO, even better!

Erwin Lion
co-founder IVAO

Acknowledgements

A lot of people contributed to IvAi in various ways. We would especially like to thank all IvAi beta testers for the hours of work they spent in debugging and commenting IvAi and of course all the IVAO members who contributed ideas to the project.

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All beta testers for their great work on helping me out for any problem that occurred.

And finally we would like to thank our friends and families who respected our situation and gave us the time we needed for the project.

Thank You!
Kenny Moens

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This software is Copyrighted by the International Virtual Aviation Organization and the authors of the program (Kenny Moens).

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Chapter 1 - What is it? What do I need?

IvAi is best described as a proxy-server for the IVAO network. It allows the user to run multiple programs (ATC, Pilot,...) while only having one real connection to the IVAO network. This leads to new possibilities like tower views, multiple radar screens and many others.

To use IvAi a computer running Windows 2000 or XP is required (Windows 98 and ME are not officially supported, but they will probably work) with an active internet connection.

You also need a user account on the IVAO network. If you don't have an account yet, you can create one at <http://www.iviao.org/members/new/>. Write down your VID and your IVAO password, you will need them later.

Now you need to download some software:

- IvAi (required, the software that functions as a proxy server)
download at: <http://www.iviao.org/softdev/IvAi/download.htm>
- Other network clients (see next chapters for details)

Find more information about software used on IVAO network at <http://www.iviao.org/network/so/>

Flying online requires you to be connected to the Internet during your session (unsurprisingly so!). Please note that certain low-bandwidth connections such as GPRS might give less than optimal results, particularly for voice communication, with added delays and poor voice quality. Try to be online using at least a 56k modem connection if possible, to achieve good results in your online flying experience.

Remember that the official forum where to ask for support about IvAi is the IVAO Forum available at: http://forum.iviao.org/forum.asp?FORUM_ID=275

Chapter 2 - Installation

Installation is very simple. Just download the software, unzip it and run the installer included in the zipfile. The installer will greet you with the window shown in Figure 2.1.



Figure 2.1

After clicking next the license agreement (Figure 2.2) will be shown. Make sure you read and comply with the license agreement before selecting "I accept the agreement", once that is done you can press the next button.

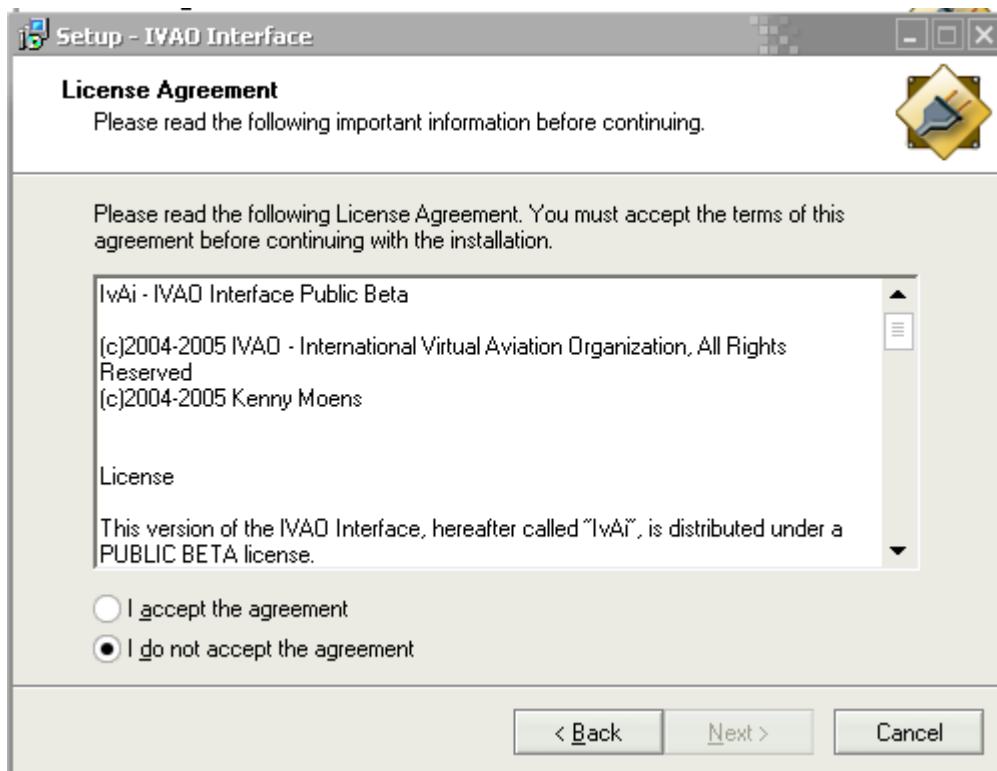


Figure 2.2

The installer will now prompt you where you want to install the program (Figure 2.3). You can either keep the original folder, type another folder or select a new folder using the “Browse...” button.

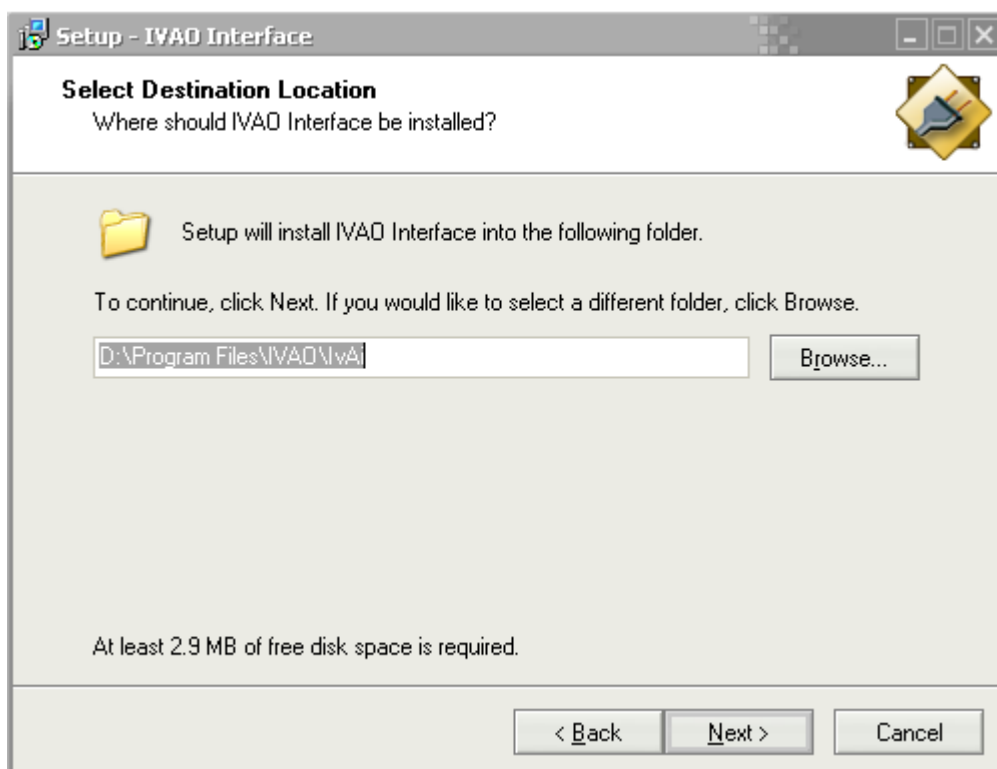


Figure 2.3

The next window (Figure 2.4) offers you the possibility to install a tower model for Microsoft Flight Simulator. You can install it for FS2004, FS2002 or in your IvAi folder, furthermore you can choose not to install the model.

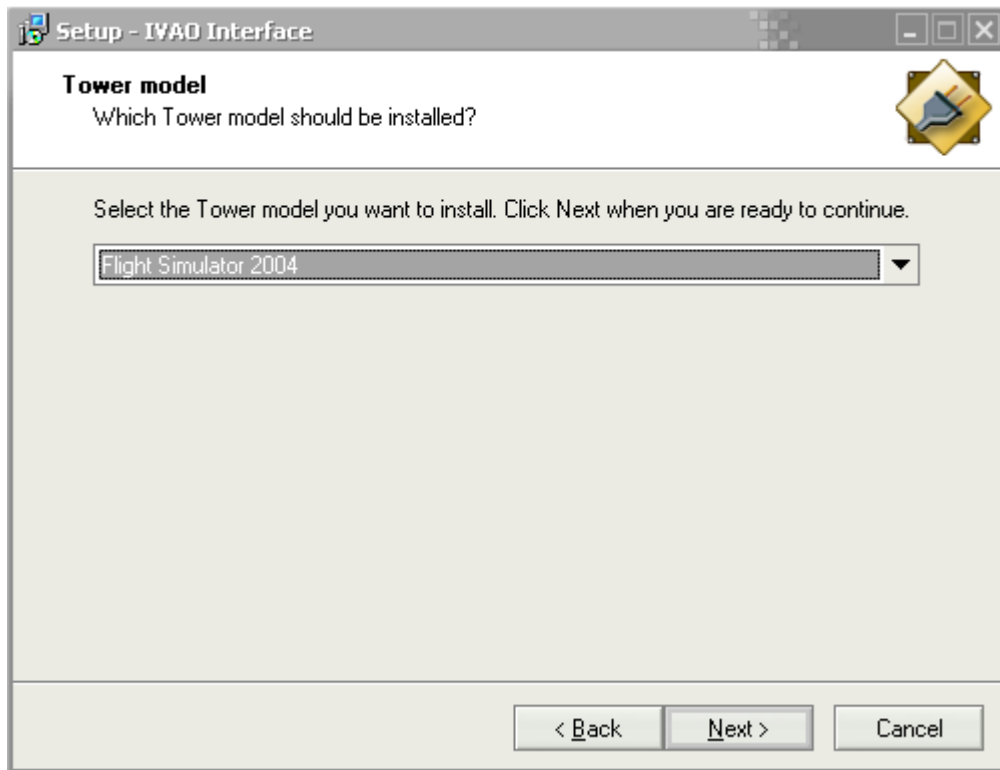


Figure 2.4

The following window (Figure 2.5) will ask you where you want to put the program in your start menu. Again you choose to keep the default setting or to select a new folder.

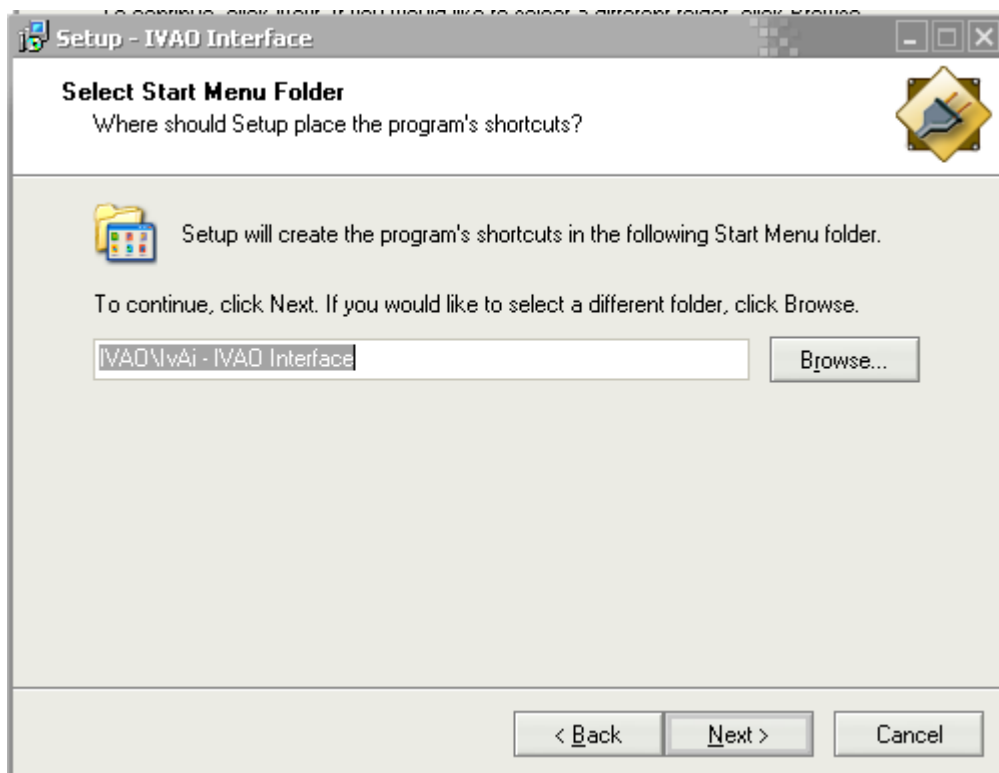


Figure 2.5

The next window (Figure 2.6) will ask you if you want to create an icon on the desktop and/or the quick launch bar of windows.

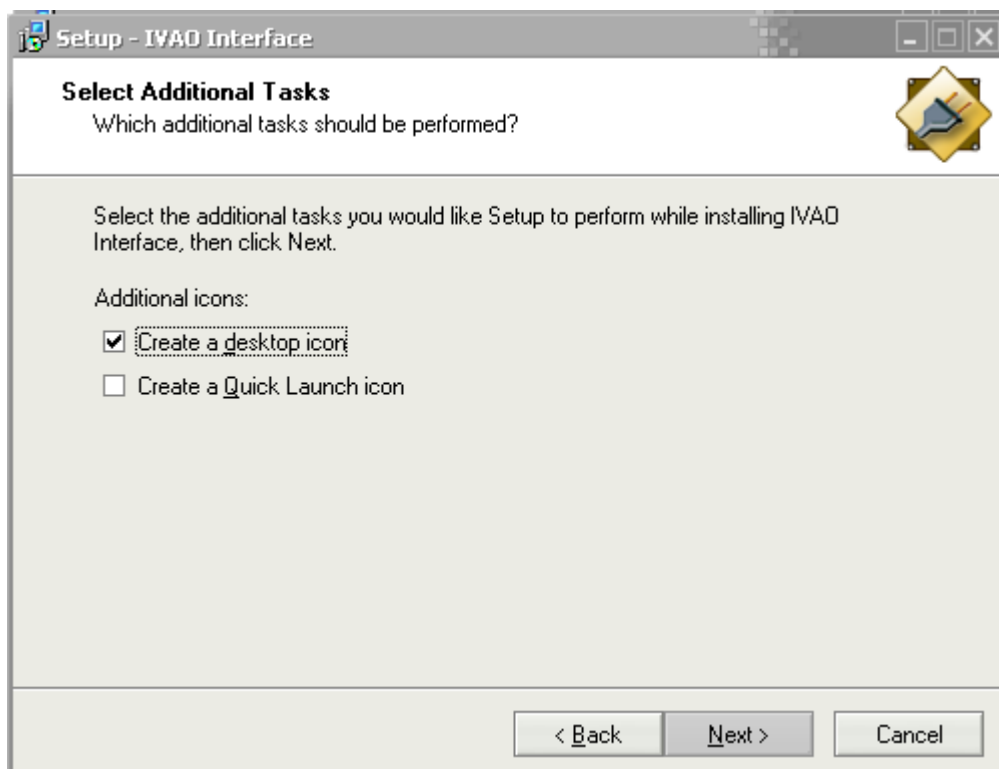


Figure 2.6

Before starting the installation, the installer will give you a summary of the installation (Figure 2.7). You can review the settings here and optionally use the “back” button to correct actions. Once you hit “install” the program will be installed.

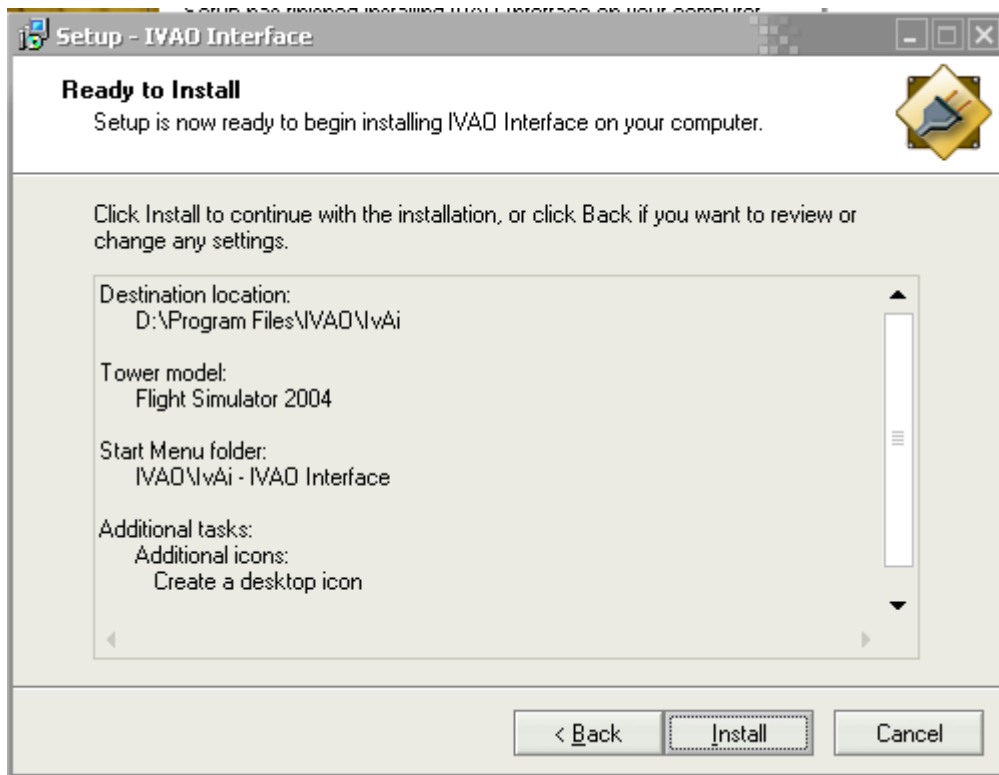


Figure 2.7

After the installation is finished the installer will inform you with the window of Figure 2.8. You have the option to start the program immediately if you want so.



Figure 2.8

Chapter 3 - General Usage

The first thing you should do when you want to use IvAi for whatever purpose (as described in the next chapters) is to start it. You can find IvAi in your start menu in the folder you selected in the installer or the default folder, as shown in Figure 3.9.

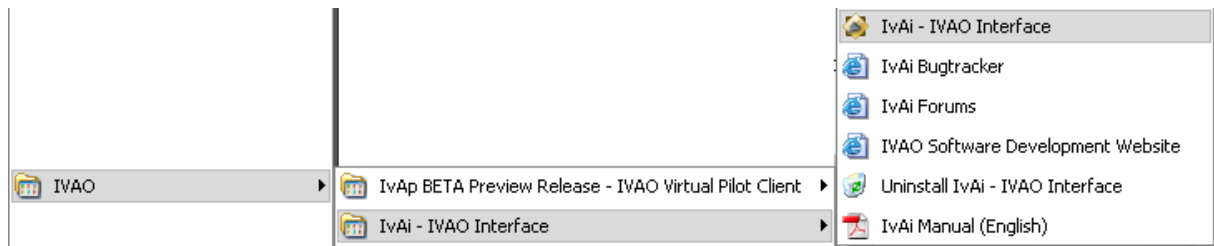


Figure 3.9

A window as in Figure 3.10 will appear. The window lists the details of the IVAO server connection and the port to listen on towards the clients. IvAi will preselect a server depending on the ping and load time of that specific server. If no server is preselected, select a server.

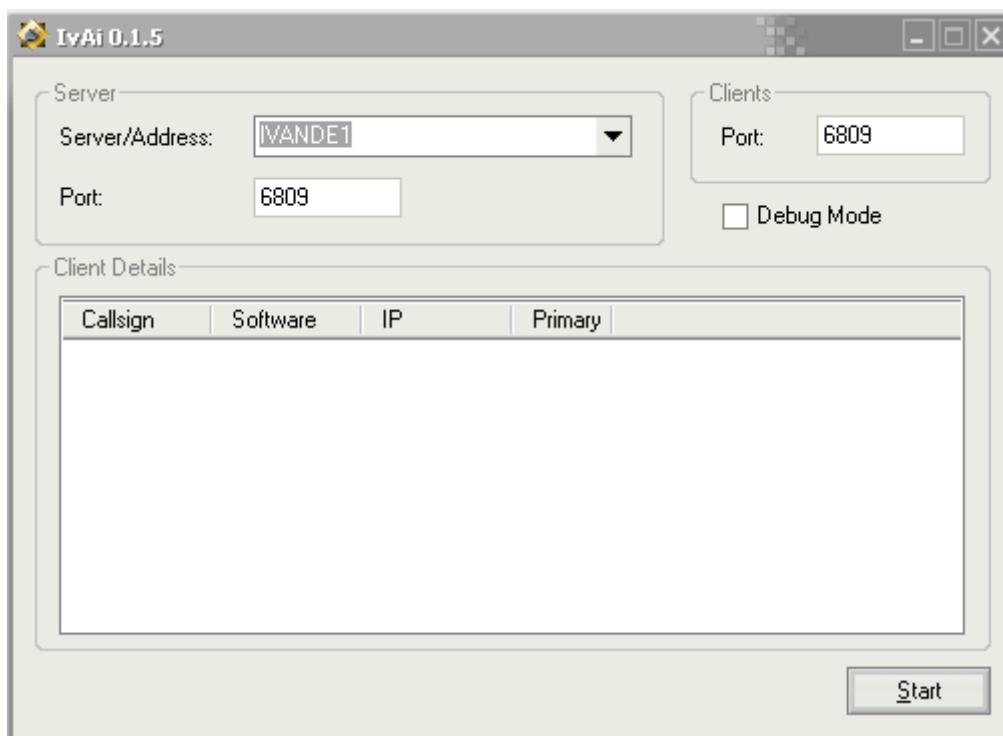


Figure 3.10

Once a server is selected, hit the start button. The dialog will change a bit (Figure 3.11) and IvAi is ready, you can now safely minimize the window, IvAi will then be put in the system tray (Figure 3.12).

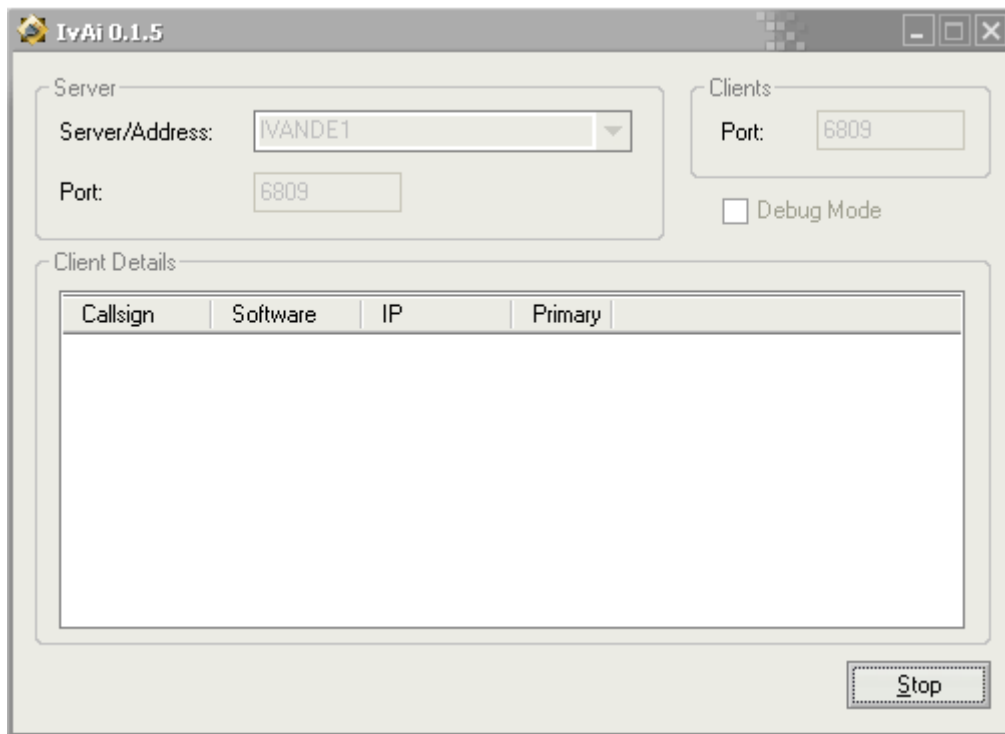


Figure 3.11



Figure 3.12

IvAi is now ready for usage. All that remains now is to connect the clients to IvAi and thus the IVAO network.

If you are going to setup a tower view or multiple radar screens, skip to the relevant chapter for your setup.

IvAi can now accept an unlimited number of connections which will all bundle to one connection to the IVAO network. All you have to do is to connect the ATC and/or pilot clients you want to use to the IP of the PC running IVAO (in most cases this will be the same PC and thus “127.0.0.1” or “localhost”).

The first program that connects to IvAi will indicate the type of your connection. Thus if you connect an ATC client first, you’ll have an ATC or observer connection, if you connect a pilot client first you’ll have a pilot connection.

Note: it is highly recommend using clients of the same protocol revision only; this ensures the best possible results. Normally all IVAO developed programs have the latest protocol revision, in case of doubt contact the authors to ask which revision they are working with.

Note: IvAi only allows clients of protocol revision alpha or higher as primary clients. This means clients as SquawkBox and ProController cannot be used as primary clients.

Chapter 4 - Tower View

IvAi gives you the possibility to create a tower view and thus getting a very realistic view on the airport for ground and tower controllers.

What do I need?

- **IvAi** (required)
- Any **pilot client** that allows smooth movement of planes (required).
We will use **IvAp** for Microsoft Flight Simulator to setup the tower view.
- Any **ATC client** (required).
We will use **IvAc** to setup the tower view.
- **Teamspeak** (required if using voice)
download: http://www.ivao.org/data/files/software/ts2_client_rc2_2032.exe

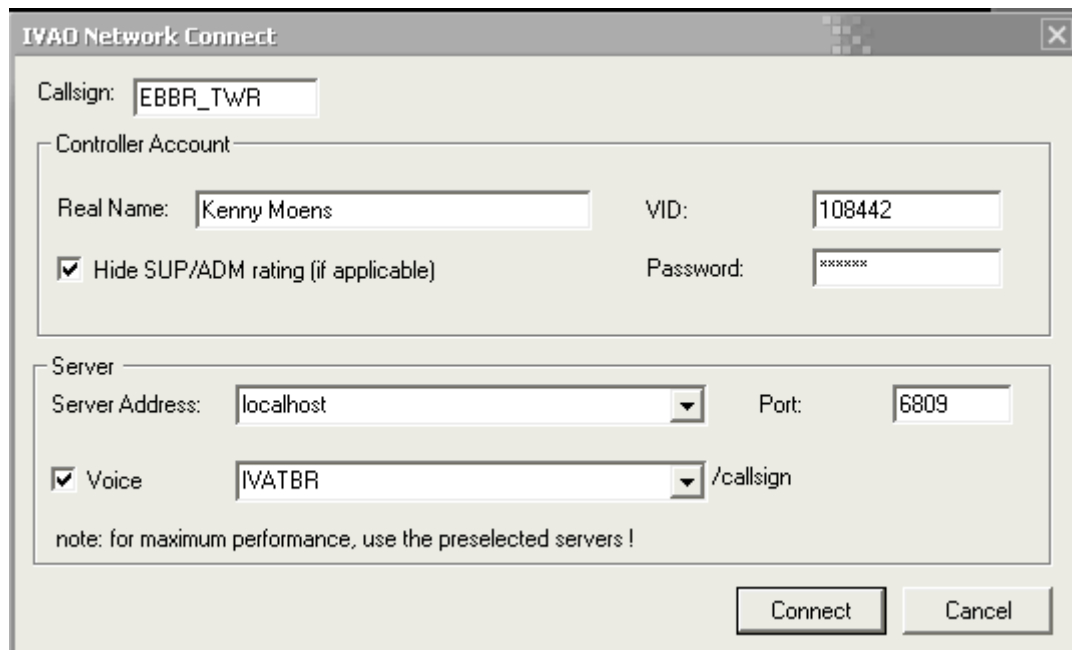
How to start the tower view?

It is assumed that IvAi, IvAc (or another atc client) and IvAp (or another pilot client) are already installed before you read this chapter. If you did not install the programs yet, please install them now. Refer to the manuals of the respective products for details.

The first thing you should do is startup IvAi (as described in chapter 3).

Once IvAi is running we have to start to get our tower view working. Since a tower view is an ATC connection we should first start the ATC client (refer to the manual of the ATC client for details). Considering IvAc we should then connect to IvAi.

When using IvAc, pop up the connect dialog (Figure 4.13). In the server address fill in the IP of the computer running IvAi, in our case it is the same PC and thus "localhost". Furthermore fill in your position details and if you are going to use voice or not. After that hit connect.



IVAO Network Connect

Callsign:

Controller Account

Real Name: VID:

☒ Hide SUP/ADM rating (if applicable) Password:

Server

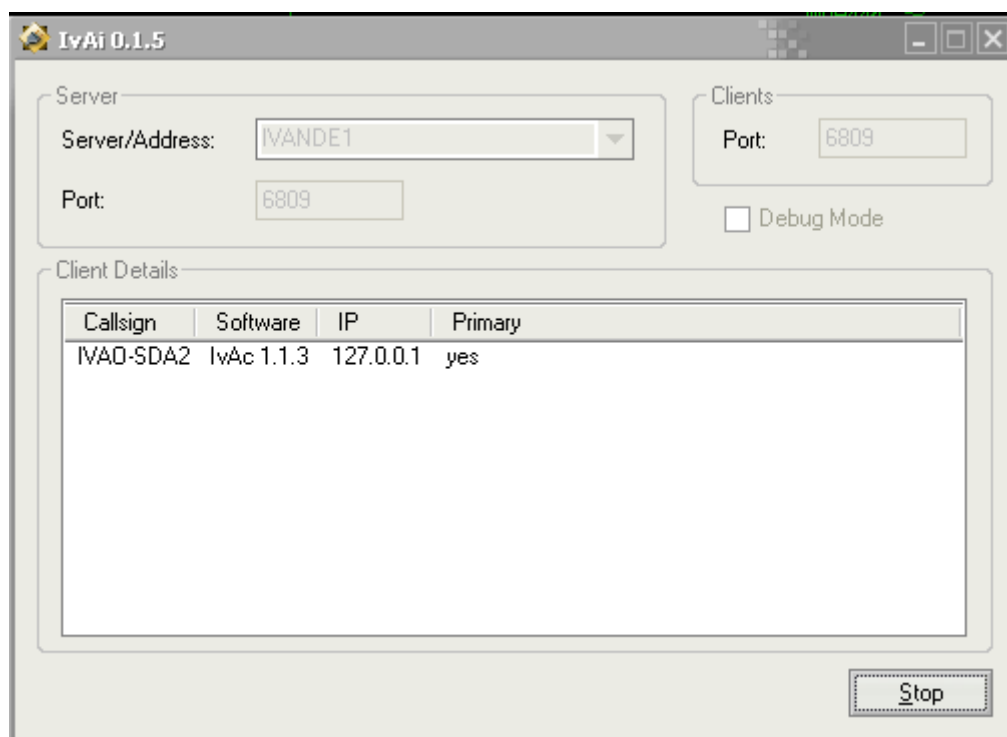
Server Address: Port:

☒ Voice /callsign

note: for maximum performance, use the preselected servers !

Figure 4.13

If all goes correct, the IvAi window (if not minimized) will add some status information (Figure 4.14) indicating that a “primary client” has connected to IvAi. A primary client indicates the type of your connection.



IvAi 0.1.5

Server

Server/Address: Port:

Clients

Port:

☐ Debug Mode

Client Details

Callsign	Software	IP	Primary
IVAO-SDA2	IvAc 1.1.3	127.0.0.1	yes

Figure 4.14

At this point we already have an active ATC connection, now we need to add a tower view. To achieve this any flight simulator with a pilot client that support fluent movements can be used, in our case this is IvAp with Microsoft Flight Simulator.

The next step is to start the flight simulator and position your plane at the airport you are controlling. In MSFS it is recommended to use an aircraft model without visuals, so that you can use spot plane view to reproduce a tower view.

Note: when using IvAp and MSFS it is highly recommended to use the included tower model which places you at a specific altitude without the need for slewing or pausing FS. These last two features seriously degrade the smooth movement of planes in flight simulator.

Once these steps are completed start up the pilot client and go for a connection. For this connection only the server is important, all other information is discarded by IvAi. In our case we fill in “localhost” as IP of IvAi and hit connect (Figure 4.15).

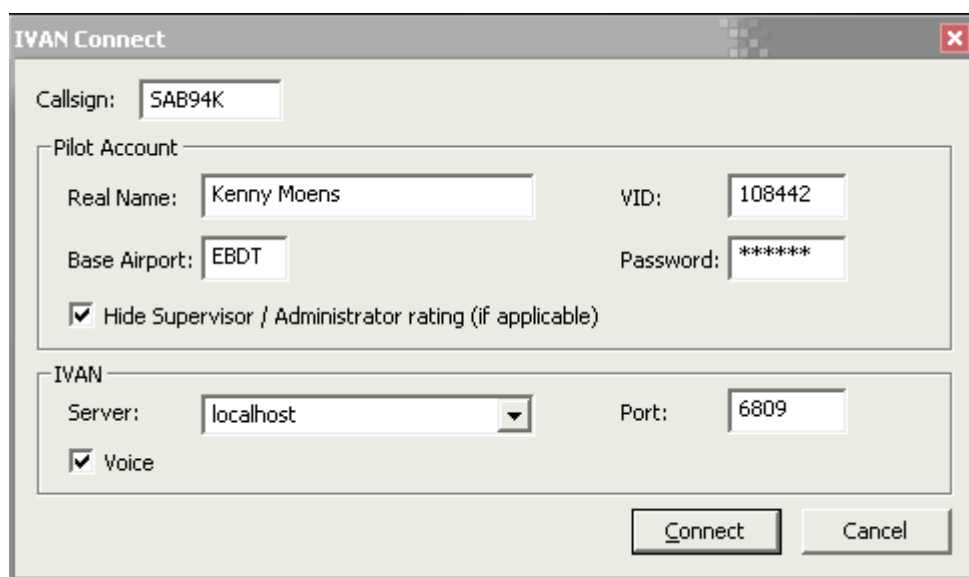


Figure 4.15

IvAi will detect this connection and add a status note to its listing (Figure 4.16).

Now you're done, the tower view is activated. You will see all planes of the network landing in the flightsim and you can go back to the atc client for the radar view.

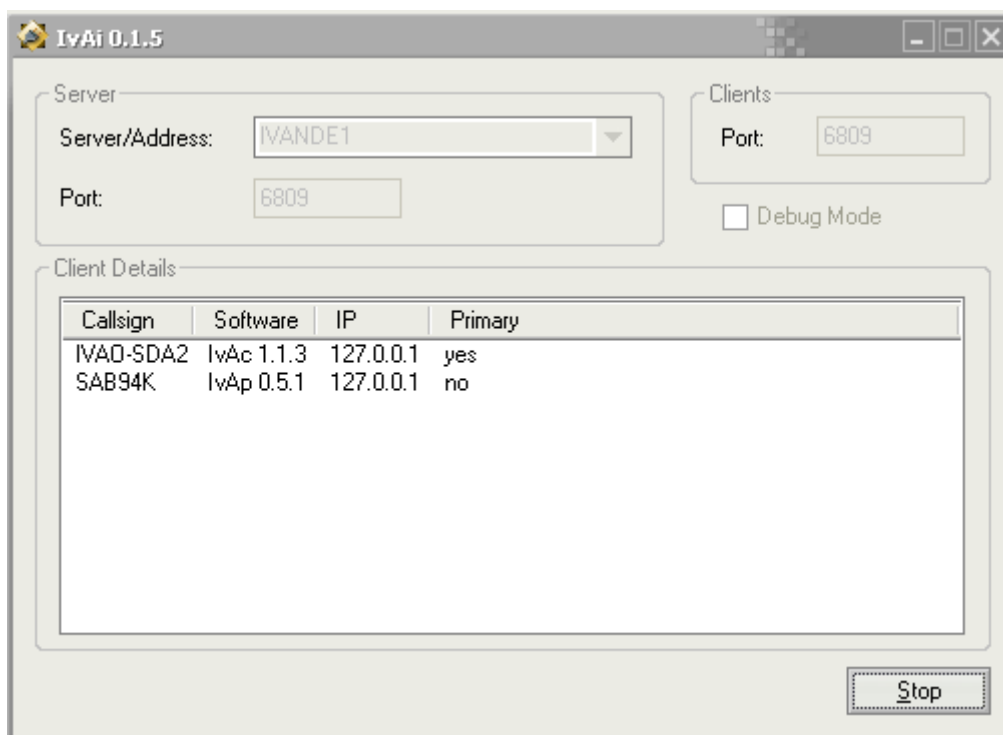


Figure 4.16