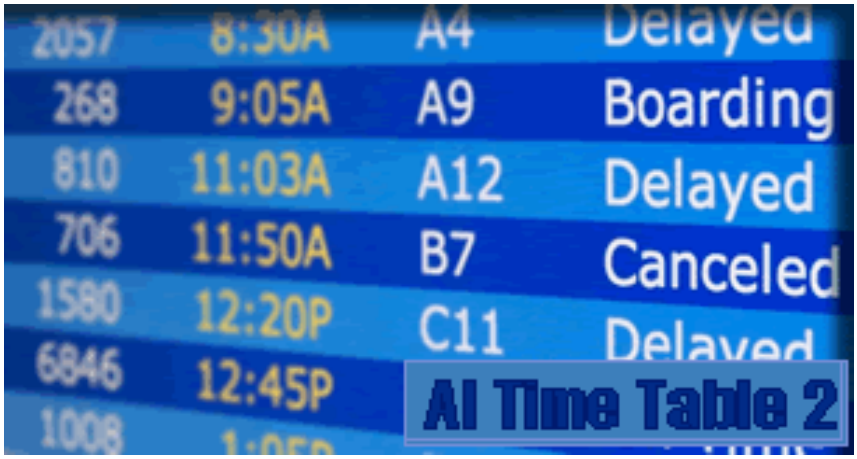
geniX Software Development



User Guide

AI TimeTable 2.

Date: 10/16/2012

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1 About this guide

This document is divided into the following chapters:

- Chapter 2, “Introduction”.
- Chapter 3, “Describing the system”.
- Chapter 4, “Starting AI TimeTable 2”
- Chapter 5, “Step by step instructions for using AITT2”
- Chapter 6, “Enriching infos for AITT2”
- Chapter 7,”The User Flight”
- Chapter 8,”Printing Time Table”

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1.1 Who Should Use It

This guide is intended for users of different degrees of knowledge and experience with the following applications:

- MS-Windows Operating Systems: basically XP SP3 but some tests on Vista and Win 7 have given positive results
- MS-FS2004
- P.Dowson' FSUIPC.dll and its fsuipc.ini configuration file

This guide assumes that you have some knowledge of the operating of the above programs and applications.
For more information, see the appropriate related documentation.

2 Introduction

2.1 Purpose

AI TimeTable is a software simulation of an airport time table for MS-FS2004, where the airport location is just where your aircraft is positioned. It is completed with a TTS for speaking flights announcements, optionally.
AITT2 is the natural evolution of AITT 1.99 and comes with some modification both in the user interface and in the global management of the AI environment of MS-FS2004.
Purpose of this document is to provide all information on how interact with the program.

2.2 Scope

Scope of this guide is to provide a panoramic view of how to play with AITT2.
Further, some mandatory prerequisites are listed in order to run the program.

2.3 System Organization

This document applies to:

- AI TimeTable 2
- Version 1.6.x
- All releases

2.4 History

Rel 1.7.0

- Full screen monitor now available

Rel 1.6.0

- ICAO code now substitutes IATA when this is not available (** value in the DB).
- Enabled traffic file live filtering.

Rel 1.5.8

- Enforced WideFs information and integration.
- Bug fixed on startup sequence.
- Fast startup and fast real-time airport list creation.
- Bug fixed on “LAST CALL” minimum threshold.

Rel 1.5.7

- Now it is possible to enable/disable displaying of Military flights directly from the user interface

Rel 1.5.6

- Now it is possible to enable/disable VFR flights directly from the user interface
- Now it is possible to enable/disable Cargo flights directly from the user interface (see user manual for further info)
- A couple of source modification in order to play with Win 7, too.

Rel 1.5.5

- The Airport manager window is restored to the original layout (no more sizeable borders).
- The AITT2 tray-icon menu now can be invoked using the right mouse button.
- A couple of bug fixed in order to play with Win 7, too.

Rel 1.5.4

- A new exiciting function is now available: Sound Effects. This function permits to hear a typical airport' ambience sound with the AI flights announcements.
- A second level of cargo flight filtering is provided (requires manual intervention on *AITT2.ini*).

Rel 1.2.2

- A new field is created ("AIRLINE") in the Airline Manager window. The content of this field now will be inserted in the place of the airline logo (if the logo is not found or is null). If this field is null, then the "CALLSIGN" field value is used.
- The above new field is added only one time at the start of the program: click on "Yes" when prompted on "Reconverting AITT DB ?".

Rel. 1.2.0

- A couple of bug-fixing on airport logo refreshs on monitors.
- Reworking on status sequences for departing flight, introducing the status of "Late Board" on departure monitor and changing the status "Closed" to "Delayed" after the reaching of the "Last Call" zone minutes threshold.
- AITT2 monitor will try to **not** display cargo flights.
- Changed the test-interval on FS freezing in order to speed-up the AITT2 re-linking to FS2004 (when needed).

Rel. 1.1.5

- Allowed more long airports name on monitor displays.
- Change status sequence for departing flights, introducing the "last call" info (time-adjustable).
- FSUIPC configuration items now are in a separate tab-dialog.

Rel. 1.1.3

- Allowed airports logo to monitor displays
- Allowed monitoring of the *user* flight

Rel. 1.0.2

- It is possible to enable/disable the "*Always Stay on top*" features of the monitors windows (enabled is the default).

Rel. 1.0.1

- GA Flights are *NOT* displayed by default, regardless MS-FS2004 setting.
- The REMARKS status "Boarding", "Delayed", "Landing" and time indication now are displayed in reversed color respect the timetable grids color setting.

3 Describing the System

3.1 Key Features

AITT2 is indicated for people loving airports environments and air-watching in the world of MS-FS2004. AITT2 provides a virtual monitor (or a couple of them) that displays the flights that are in and around the airport where the user is located on the ground.
Some options are available to best tailor user needs in this application; moreover, with a little effort is possible to add airline logos and update the list of airports.
For users that wishes to hear flights announcements, AITT supports MS-SAPI 5.x compliant speech engines in order to provide a better airport ambience.
Finally, the program can be run under WideFs as well, with a little *user intervention*.

3.2 Program Inventory

AITT2 application is composed by the following files:

File	Note
Airport.cds	**Internal database of ICAO codes-Airport relationship, user editable.**
Icao.cds	**Internal database of IATA codes-Airlines callsigns relationship, user editable.**
Midas.dll	**Internal library of AITT2**
Aitt2.exe	**Main AI TimeTable 2 executable**
Aitt2.ico	**Main AI Time Table icon**
Aitt2.ini	**Main AI Time Table configuration file**
Release notes	**AI Time Table 2 latest release notes**
User Manual	**AI Time Table 2 user manual**

***Flag* folder**	**A folder that contains image (.bmp format) of airlines and airports logos samples.**
***Sfx* folder**	**Contains .wav files for airport ambience**

That must be all togheter into the destination folder selected by the original setup.

3.3 Environment

To run AITT2 is necessary:

- MS-Windows Me / XP / 2000 / Vista / W7 Operating system
- P.Dowson fsuipc.dll version 3.47 at list. (WideFS 5.5 minimum)
- A running MS-FS2004
- A default printer assigned into MS-Windows
- About 5 Mb of free disk space
- About 10Mb of free RAM memory
- (optional) MS-SAPI 5.x installed (with sample voices)
- (optional) Speech engines SAPI 5.x compliant[1].

We assume also that the system hardware configuration where AITT2 will run are adequate to run MS-FS2004 first.

3.3.1 Special considerations for FS2004

In order to get the best from AITT2, below some settings to consider in FS2004:

- FS2004 should be run in *windowed* mode[2].
- From *General Options*, unflag the item *Pause between applications*.
- 1024x768 pixels of resolution is best suited

3.3.2 Information sources

AITT2 information sources are mainly the AI traffic file stored into */Scenery/World/Scenery* folder of your main FS2004 installation folder (i.e. the *Traffic*.bgls*).
It is important to says that what is coded in those .bgl files is a consequence of **HOW** are corrects the aircraft.cfg files along textures and other things. These configurations will affects **FIRST** your FS2004 AI environment, next AITT2 behaviour.
So, pay attention especially on atc_airline settings in your aircraft.cfg files because from this value AITT2 is able to display IATA code and –if present- airline logo.

Attention also on aicraft title: if you don't want *cargo* flights displayed at all, please verify that all cargo type aircraft as the word "cargo" in the title or/and in the atc_airline field value.

Pay attention also on the Aircraft registration (tail) used in flightplans text files. Make sure it have assigned different "tail" to different flights[3], that's to say you don't have the same aircraft' tail executing two flights in the same time-fram "window".

---

[1] **The release is relative to the operating system version.**
[2] If used on the same computer as MS-Flight Simulator, otherwise FS may be used in full screen mode if AITT2 is installed on another networked computer using P.Dowson' WideFS.
[3] **In particular, this fact can introduce timetable informations error.**

3.4 System Operations

AITT2 normally should be started **after** the starting of FS-2004 and after positioning your vehicle (aircraft, bus, car, etc.) in an airport; anyway, AITT2 has some capabilities that permits *to link with FS-2004* also if itself was started without FS2004 running (see further in this manual).
AITT2 works as an tray-icon program i.e. it minimize into the tray area of MS-Windows. It has two *working modes*: Console and Traffic[4].
In the Console Mode, we have access to configuration panels of the program and with some other infos; in the Traffic modes only the virtual monitor is displayed with flight information:

Fig. 3.1 - The (black-circled) AITT2 icon on the Windows' System-Tray Area

Note: *Double-clicking on the system-tray AITT2 icon, in turn hide/display the console window*

A pop-up menu is showed when clicking with the right mouse button on the AITT2 tray-icon:

Fig. 3.2 - The figure shows the AITT2 pop-up menù.

Below the screenshot of the main form of AITT2 that shows immediately the program run:

Fig.3.3 - The figure show the main AITT2 window with the main configuration screen

The most important things to say is that some other configuration parameters are accessible clicking with the mouse pointer on the grey zone area of the slide (see next in this document). On the status-bar you'll see useful information on FSUIPC/WideFS integration:

- FSUIPC release
- WideFS release
- If TCP is used inseatd of UDP (TCP On – TCP is used, TCP Off – UDP is used[5]).
- Connect On if a client is connected, Off otherwise.

3.4.1 WideFS integration

Tough this kind of integration was already there, now AITT2 offer more info on this kind of system connection. The only thing to understand is that the program needs to know the main (remote) FS path **and should be able to refer to it through a network drive**.

[4] **Sometimes these modes works togheter**
[5] **See WideFS documentation for further infos**

This can be put on field **creating a network drive on the pc where the widefs client run (togheter with AITT2).** This network drive must be related to the network path of the PC where is installed FS2004. Example:

Fs2004 running PC is \\myownpc: FS2004 run in c:\Program Files\MSGAME\FS9
WideFS client PC: a drive must be associated to the path above, i.e

F: = \\myownpc\\Program Files\\MSGAME\\FS9

The last scene is to puth the FSPath=F: in the aitt2.ini (the configuration file you have in the main AITT2 directory).

4 Starting AI TimeTable 2

4.1 First-time Users

As for the Installation Guide, to start AITT2 click twice with the mouse on the program desktop icon. The first thing to note is the loading time:

- If MS-FS2004 is up and running, AITT2 will communicate with fsuipc to get information for live traffic environment, so the program loading could be slow
- If MS-FS2004 not running, AITT2 will get error on communication with fsuipc, so the program loading could be fast

Note: AITT2 **will not check** if fsuipc.ini file has the correct TCASID value; refer to Installation Manual for the right informations.

The main AITT2 interface is the following: please note the error string in the status bar at the left due to the fact that MS-FS2004 wasn't running…

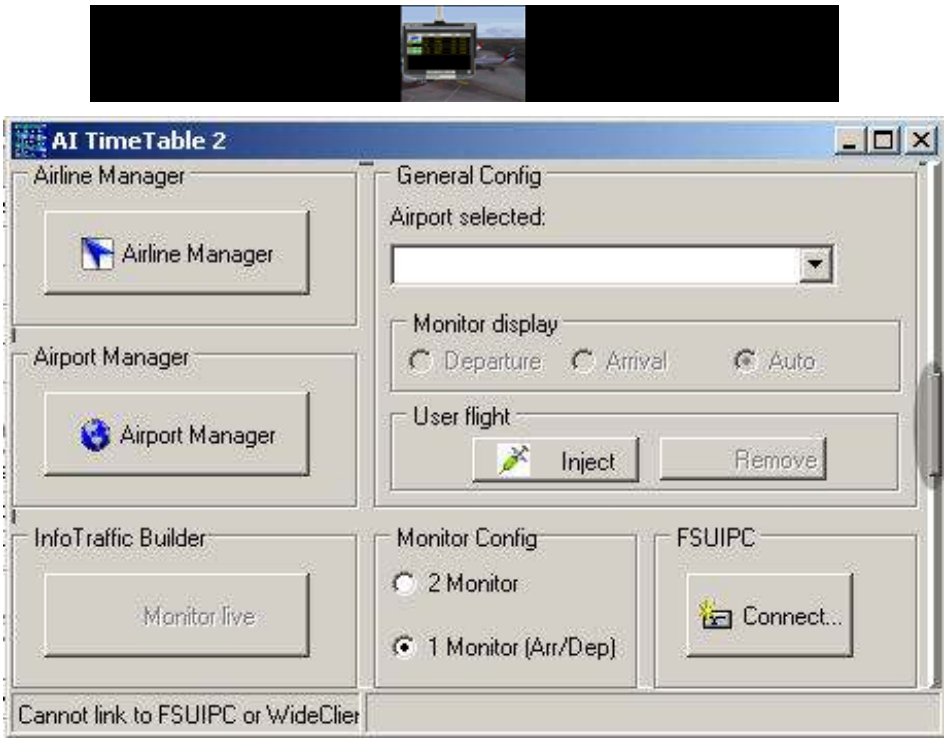


Fig.3-4 - The figure show the main AITT2 window with the main configuration screen

On the left, from top to down, we have:

- **Airline Manager button:** clicking on this button, a window will show to permit the configuration of the airline' callsigns, airline name with IATA codes and a **facultative**[6] image of the logo.
- **Airport Manager button:** clicking on this button, a window will show to permit the configuration of airports with ICAO codes; also this is **facultative** as AITT2 will show directly the ICAO code if the airport description is not found in the internal database.
- **Monitor live button:** clicking on this button, the monitor(s) window(s) will be showed on the desktop. Each time the button is pressed, AITT2 will show (or refresh) the monitor(s) with the current flights around **for that day**. This button is grayed – as in the screenshoot - when FS2004 is freezed or not running and when the program is already collecting data.

In the *General Config* right-side we found:

[6] **AITT2 will show the airline name or the callsign (if airline name is empty), in the place of the bitmap.**

- **Airport selected:** a listbox containing the airports to be select. The list can be filled from one of these sources:
    - Internal AITT2 airport database
    - FS2004 live-refrenced airports (i.e. the **current** flights' departure/arrival airport)

  The above source configuration is present in **Real-Time** configuration tab (see further in this document).

  The button next the list (*refresh button*), is active only when the source is FS2004 and there is an active fsuipc link to MS-FS2004.
- **User flight:** two buttons to manage the *User* flight. The "inject" button let you insert the user flight in the timetable monitors (when needed) and the "remove" one simply delete the flight from the monitors.
- **Monitor display:** it defines what is displayed in the *single-way* monitor[7]:
    - Departure only flights.
    - Arrival only flights.
    - Automatic mode: Departure and Arrival are displayed in alternate mode with a timing defined in the **Real-Time** configuration tab (see further in this document).
- **Monitor config:** it defines how many monitors will be on the display:
    - One monitor for both Departure and Arrival flights.
    - One monitor for Departure and one for Arrival flights.
- **FSUIPC button:** this button permits, in case of lost link to Fsuipc for some reasons, to re-create the connection without exiting the program.

Further in this document we will illustrates other configuration settings that are available clicking on the slider at the right-side of AITT2 (the black-point next the **-|** sign).

4.2 Register AITT2

AITT2 is first released as shareware form, with the following limitations:

1. Max 5 flights listed in the monitor
2. Only one monitor at a time.

[7] **The defaul for AITT2 Shareware version**

In order to *unlock* the above limitations, you must have registered the programs buying a personal license from the vendors.
Having these data, click on the slider and select the ***Register*** tab:

Fig.4-1 - Inputs for the register tab

Type the user-id and serial number you get into the appropriate fields and then click on the **Register AITT2** button: if the data are valid, your copy of AITT2 is well registered. Thank you!

4.3 Exit AITT2

To exit AITT2 program, there are two methods to use for your choice:
Clicking on the standard Windows *close button*, on the upper left corner of AITT2 main window
OR select the **Exit AITT2** menu selection from the pop-up menu (see *Fig.3-4 or 3-5).*

5 Step by Step Instructions for using AITT2

In the following chapter, we'll assume that:

- P.Dowson' FSUIPC.dll is in the */Modules* folder of your main FS2004 folder.
- MS-FS2004 up and running[8]

So, before to go down, please **START AITT2 BY DOUBLE-CLICKING THE DESKTOP ICON**

5.1 Instructions

The first thing we do is to observe the main AITT2 window:

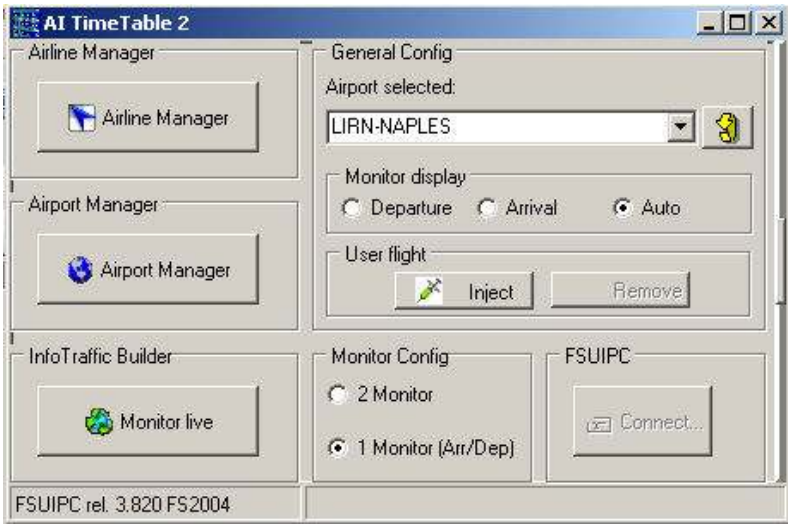


Fig.5-1 – The main (working) AITT2 window

This windows actually uses an airport list derived from arrivals and departures airport near your aircraft and we have selected LIRN (NAPLES).

[8] **Also, this is not mandatory**

Now, **simply click on the *Monitor live* button and the monitor(s) will appears:**

Fig.5-2 – Departure Monitor

This monitor displays the aircraft type, too, as for a configuration flag.

Warning: Please remember that enabling display of AC Type can cause instability in AITT2 on slow computer

Note: *If the IATA code is unavailable for an airline (this is marked in the Airline DB as **), the ICAO code will be used*

Note: In the "behaviour options" is it possible to check a Full Monitor setting to obtain a full screen view (see the related Cap. For further informations)

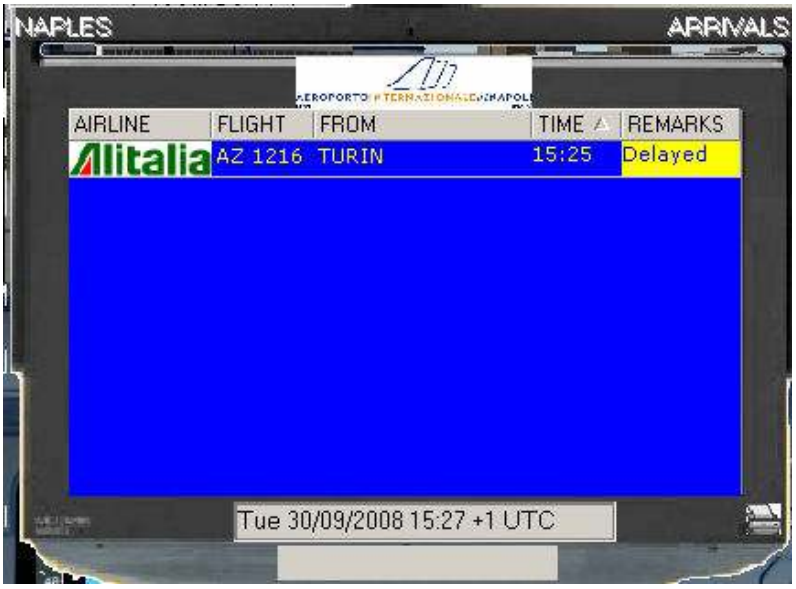


Fig.5-3 – Arrival monitor

This monitor displays the aircraft type, too, as for a configuration flag.

Warning: Please remember that enabling display of AC Type can cause instability in AITT2 on slow computer

At this point, as for the Fig.3-1, AITT2 will be iconized in its main window and the monitor(s) will continue to work.

Note: All the time values displayed are rounded to 0 or 5 last minute digit

The *user* flight is displayed as a “normal” AI flight

5.1.1 VFR and Cargo flights notes

AITT2 can display or not VFR and Cargo flights in its monitors.
For the cargo flights, this is obtained using a couple of rules; a flight is marked as “cargo” if:

1. Has the word “cargo” in the title or/and in the atc_airline field value.
2. Its IATA code (2 chars) is in the AITT2 internal list.

For the VFR flights, AITT2 get information from FS2004 flag for each flights.

To disable or enable the *vfr* and/or *cargo filtering* please use the “Real-time” tab selection.

5.2 Errors and Malfunctions

AITT2, in the majority of cases, can continue working also if some data are not arriving from FSUIPC interface. In the case of error dialog, click on the error dialog button and wait the program re-synchronization with FS2004.
If this not happen for a couple of minutes, please close and restart the program[9].
In the case of program-freezing, use MS-WINDOWS Task Manager application to select, from the tab *“Processes”* , the process name AITT2 and click on the *“Terminate”* button.

Note: The <*Connect*> button will be enabled only if FS2004 was shutted down. In this manner, it is not necessary to shut down also AITT2, but simply wait for FS2004 to be live again (and next click on the Connect button).

5.2.1 Messages

The messages visible to the program are the following:

Message	Where	Why
Reading live airports and live traffic files...	**Main AITT2 window status bar (left or right side)**	**Reading traffic.bgl pathname and contents**
FS Freezed...Waiting	**Monitor(s) or main AITT2 window status bar (left side)**	**FS2004 is not in *Ready to fly* mode[10]**

[9] **Only one instance of AITT2 is allowed at a time**
[10] when FS is loading, or reloading a flight or aircraft or scenery.

Waiting to reconnect...	**Monitor(s)**	**FS may be in a freezing state and AITT will try to reconnect each minute**
Collecting data…	**Monitor(s)**	**Retrieving live flight information from MS-FS2004**
MS-SAPI or Speech Engines not installed	**Main AITT2 application**	**MS-SAPI runtime 5.x is not installed into the system OR there is no Speech Engine available**

5.2.2 FSUIPC specialized messages

Below the table the display FSUIPC (error) messages that can appears in the status bar of AITT2 main window:

Message	Why
"Attempt to Open when already Open"	**FSUIPC *"Connect"* button was clicked when an AITT2 connection is already active (maybe in a Waiting to reconnect status)**
"Cannot link to FSUIPC or WideClient"	**Maybe FS2004 is not in running mode, so clicking on the FSUIPC *"Connect"* button give this message.**
"Failed to Register common message with Windows"	**Problem with MS-Windows communication**
"Failed to create Atom for mapping filename"	**Internal FSUIPC error**
"Failed to create a file mapping object"	**Internal FSUIPC error**
"Failed to open a view to the file map"	**Internal FSUIPC error**
"Incorrect version of FSUIPC, or not FSUIPC"	**The FSUIPC.dll is corrupted**
"Sim is not version requested"	**The MS-FS version is not supported**

"Call cannot execute, link not Open"	**An FSUIPC operation is executed but the link tpo FSUIPC is down.**
"Call cannot execute: no requests accumulated"	**An FSUIPC operation is executed but no data are available**
"IPC timed out all retries"	**All retried requests to FSUIPC are gone in timeout**
"IPC sendmessage failed all retries"	**All retried requests to FSUIPC gives a failure code**
"IPC request contains bad data"	**Last request to FSUIPC contains bad data**
"Maybe running on WideClient, but FS not running on Server, or wrong FSUIPC"	**The FSUIPC instance is not valid, maybe WideFS error to connect to MS-FS2004**
"Read or Write request cannot be added, memory for Process is full"	**Internal FSUIPC problem**

5.3 AITT2 configuration tabs

In this chapter we are going to explain the various optional settings of AITT2.
The options tab are normally hidden in the main AITT2 window; as explained into Cap.4.1 click on the slider button on the right side.
Next click on the chosen tab (Behaviour, Real-Time, Register or FSUIPC) to see the related set of options.

5.3.1 Behaviour options

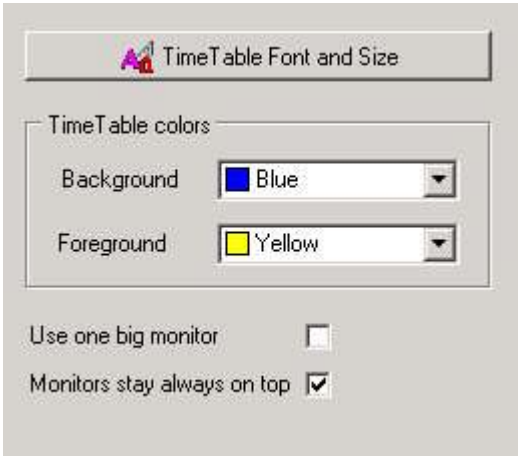


Fig.5-4 – Behaviour options tab

In the TimeTable colors options you can chose the time-table grids background and foreground colors, simply clicking on the arrows to chose the desired color.

The option Use one big monitor let AITT2 displays only one big monitor (double modality DEP/ARR based on the “Monitor Display” options on the main console) instead of that standard.

The Monitors stay always on top let you configure AITT2 Monitors as an *always on top* window, i.e. the monitor will be displayed always on top of the other windows on your desktop.

Warning: Once selected/deselected one of the above options, you must click again on the “Monitor Live” button to apply the change.

Clicking on The TimeTable Font and Size button, a window will appears:

Fig.5-5 – Font and Size dialog window

In this window is possible to chose wich character font, style and size.

Click <OK> to immediately set the values to AITT2

Note: The screenshot is in Italian language; each AITT2 installation will get here the appropriate interface languages.

5.3.2 Real-time options

Fig.5-5 – RealTime options

Boarding Times [min]: sets the threshold for National flights and Internation flights boarding time (that is subtracted from official traffic bgl departure time) in order to display the “Boarding” status in the REMARKS column during the aircraft “sleeping” time.

Operational settings:

- Threshold time tolerance [+/- min]: set the minutes range in which a landing/departing flight is declared “Delayed” status in the REMARKS column. This value is respect to the supposed arrival time based on the distance and altitude from the current airport and on departure time as it is coded into the traffic file (for departure aircraft).

Note: *Once the time passed the “threshold time tolerance”, that flight is declared as “Closed” regardless the effective AI status from FSUIPC*

- “LAST CALL” zone min: set the minutes before the time of departure scheduled in which the status of the flight is showed as “LAST CALL”.
- Allow RT Airport list: set the showing on/off of the list with live airports; the list is filled with the airports collected from FS2004.
- Enable VFR flights: if checked, the *VFR-marked* flights will be displayed into the monitor

- Reduce MIL flights: if checked, AITT will filter all the flights routed by a military aircraft.

Warning: The program will filter aircraft title containing “air force” string pattern or atc_airline string containing “airforce”

Filter Cargo flights

Enabling this option, AITT2 will try to filter (aka **not display**) all supposed Cargo flights; apart some fixed behaviour (see Cap. 5.1.1), the program will verify if the two-letters IATA code is present in the editable list here: if found, the flight will be classified as cargo and so not displayed into the monitor.

Note: Please separate the different IATA code with a comma

5.3.3 FSUIPC options

Figura 1-FSUIPC options

RTScan refresh [min]: set the minutes interval for polling FSUIPC to get AI live traffic

Warning: **On very traffic-dense airports set this value to 2 or 3 minutes refresh**

Monitor refresh [min]: set the minutes interval of swapping from Departure to Arrival display when AITT2 is in one-monitor mode.

Enable aircraft type collection: flag that enable or not the collection of AC type from traffic bgl files[11]

Warning: Set this value can introduce instability problem on slow computers

[11] **This value reflect what is stored in each aircrafts configuration file**

WideFS Path*:* contain, if it is the case, the full path to the remote main FS2004 directory.

5.3.4 SFX Options

This Options are working only if the user has Windows with MS-SAPI 5.x installed. This installation is easy to found on Microsoft main site or here (see AITT2 Release notes for further information):
http://www.microsoft.com/downloads/details.aspx?FamilyID=5e86ec97-40a7-453f-b0ee-6583171b4530&displaylang=en

Anyway, the display is the following:

Fig. 2 – SFX options

If AITT2, at the startup, did not find any SAPI (or speech engine) installation, there will be a message windows. The "Enable SFX" group will be unchecked: so AITT2 will works as until now.
In the case that it is all ok, for the first time you must go on this tab and select the speech engine (or voice) you like to hear in the flight announcements; **confirm this clicking on the "Select speech" button**.
Another important step is the translation table: here you must translate (in the voices language) the foundation phrases of the announcements (those in the *phrase* column). Your translation must be edited into the respective *translated* column[12].

[12] **Also for the english, please.**

The table here has a pop-up menu that is showed when you click on the right mouse button:

Fig.3 SFX Pop-up menù

To sve your editing, click onto the “Save list” item. Your translated foundation will be saved with the .dat extension and the name equal to the language selected.
So, once you need to change your speech voices, if available, the proper foundation file will be loaded.

At any time you can deselect the “Enable SFX” in order to stop TTS flight announcements. However, if you don’t want ambience effects only, please select the “Disable SFX ambience” check-box.

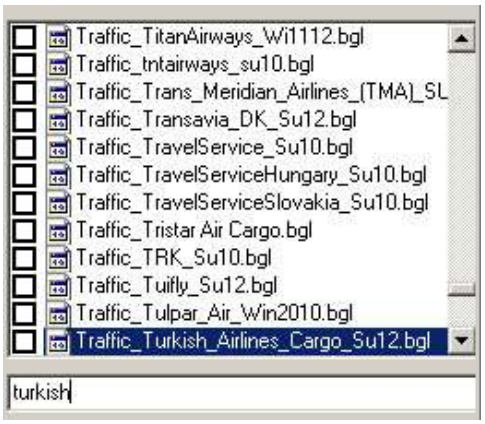
Note: The ambience wave will stop at last one minute after your pushback !!

5.3.5 File control

The file control tab permits to select **which files will be left off from the AITT board**.

Warning: This NOT means that flights created by those files are erased from FS2004.

This is useful when Cargo and/or military filtering doesn’t fill your need.



In this example, in the edit box we have typed “turkish”. If a file exists and has the word “turkish” as part of its name, the first of these file will be selected. At this point the user can *flag* the related box (that means “do not use me as source for the timetable”) or not (normal status).

The filtering will be active at the next timetable refresh (via *Monitor Live* button or automatic).

5.4 Real-time informations and flight status

Below the table with the *template* of flight status info displayed by AITT2:

REMARKS	NOTE
DELAYED (on departure)	Aircraft is reported to be standing still on the ground after departure time has expired and is over the “Threshold Time Tolerance” value.
LATE BOARD	Aircraft is reported to be standing still on the ground after departure time has expired and is below the “Threshold Time Tolerance” value.
DELAYED (on arrival)	Aircraft is reported to be still airborne after arrival time has expired
CLOSED	Valid for both Departures and Arrivals: the aircraft is reported as taxiing (after departure time) or parked at a gate (after arrival)
LANDED	Aircraft is reported to be already on the ground after arrival time has expired
LANDING	Aircraft is reported to be landing.
ON TIME (on departure)	Aircraft is reported on ground and next to boarding time.
ON TIME (on arrival)	Aircraft is reported on air (within FSUIPC TCAS range) and/or arrival time is under the “Threshold Time Tolerance” value
BOARDING	Aircraft is reported to be standing still on the ground within the boarding interval from departure time
LAST CALL	The flight is ready to depart waiting the last passengers
XX:XX	Valid for Arrivals only: the flight estimade for the XX:XX local time

Note: Real Time info about the AI traffic aircrafts is taken from FSUIPC.dll data. The maximum number of AI entries in the list provided by FSUIPC for the time being is 96 (for both arriving and departing traffic), and only aircrafts within a certain range of miles from the user aircraft are included. When user aircraft is grounded, the list is filled with all AI aircrafts found below a **3** nm range from it; a **6** nm range is used if else user aircraft is airborne.

Warning: Sometimes, due to "@" code into the flight arrival time, we have noticed that some airplane arrive very early respect the time calculated by FS2004. AITT2 will take care of them simply calculating the flight arrival time as they were effectively very early.

5.4.1 Flight announcements

The flight announcements, when available, are spoken in the following flight remarks:

REMARKS	ANNOUNCEMENTS STRINGS
DELAYED (on departure)	Phrase[1]+","+Airline +", "+Phrase[2]+ " "+Flight+" "+Phrase[4]+" "+Airport+", "+Phrase[7]
DELAYED (on arrival)	Phrase[1]+ +","+Phrase[2]+" "+Airline + " "+Flight+" "+Phrase[3]+" "+Airport+" "+Phrase[9]+ Time+","+Phrase[7]+"."
LANDING	Phrase[1]+","+ Phrase[2]+" "+Airline + " "+Flight+" "+Phrase[3]+" "+Airport+","+Phrase[10]
BOARDING	Phrase[1]+","+Airline +","+Phrase[2]+" "+Flight+" "+Phrase[4]+" "+Airport+","+Phrase[5]
LAST CALL	Phrase[1]+","+Phrase[6]+" "+Airline + ", "+Flight+" "+Phrase[4]+" "+Airport
XX:XX	Phrase[1]+","+ Phrase[2]+" "+Flight+" "+ Phrase[3]+" "+Airport+" "+Phrase[9]+" "+Time+","+ Phrase[8] + " "+RemarkTime

Below the table with the phrase-string couples:

Phrase	string
1	Attention please
2	Flight
3	From
4	To
5	Now boarding
6	Last call for flight
7	is Delayed
8	Is Estimated to arrive at
9	of
10	is landing

6 Enriching infos for AITT2

AITT2, in its basic installation and configuration, usa a sample set of ICAO codes to get airport description into grids togheter a set of bmp files that represents airline flags[13] and airport logos too[14].
Every user can add, delete or modify this sets in order to give descriptions and visual flag to airlines.
This jobs are performed using two windows that are available from the main AITT2 folder:

- Airport Manager
- Airline Manager

The above mentioned windows are the same as for AITT 1.9RT recent release.

[13] **All bitmaps are copyrighted to and trademarks of their owners.**
[14] **All bitmaps are copyrighted to and trademarks of their owners.**

6.1.1 Airport Manager

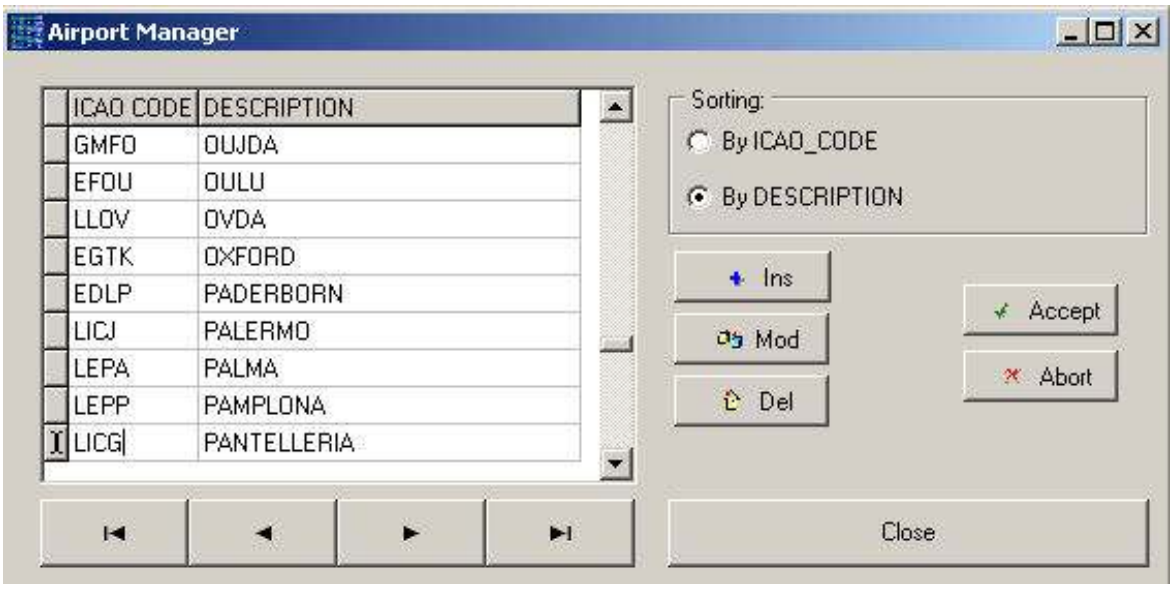


Fig-6-1- Airport manager window

To navigate the list, use the buttons:

|< , to set the cursor on the first record of the list

< , to moves the cursor one record up the list

> , to moves the cursor one record down the list

>| , to set the cursor on the last record of the list

It's possible to sort the list in two modes: by ICAO description column and by Airport DESCRIPTION column.

To modify the list, use the buttons:

- **Ins**, to adds a new record to the list
- **Del**, to deletes the current selected record from the list
- **Mod**, to edits the current record[15]
- **Accept**, to confirms the last operation (adding, editing or deleting a record)
- **Abort**, to aborts last operation of adding, editing or deleting a record

Note: If the <*Accept*> button is not enable, this means that your modification was already confirmed (this happens when moving cursor between fields).

At the end of your activity, click on the "Close" button to close the window.

To INSERT a new airport: click on "+" to add a new record, fill-in the fields, then "Accept" for confirmation or "Abort" to abort.

To DELETE a new airport: clock on "-" to delete the current (selected) record, then "Accept" for confirmation or "Abort" to abort.

EDIT an airport: click on "^" to put the selected record in editing mode, perform the modification, then click on "Accept" for confirmation or "Abort" to abort.

6.1.1.1 Airports logo

It is possible to display on the up-middle of monitors a logo representing the airport.
To working with this feature, simply create/copy a bitmap with the name equal to the four-letter code of the airport into the *flag* folder.
In this way, AITT2 each time will load the airport monitor, it will search for the airport ICAO code .bmp file and, if found , will display it (see Fig.5.3 for an example).

6.1.2 Airline Manager

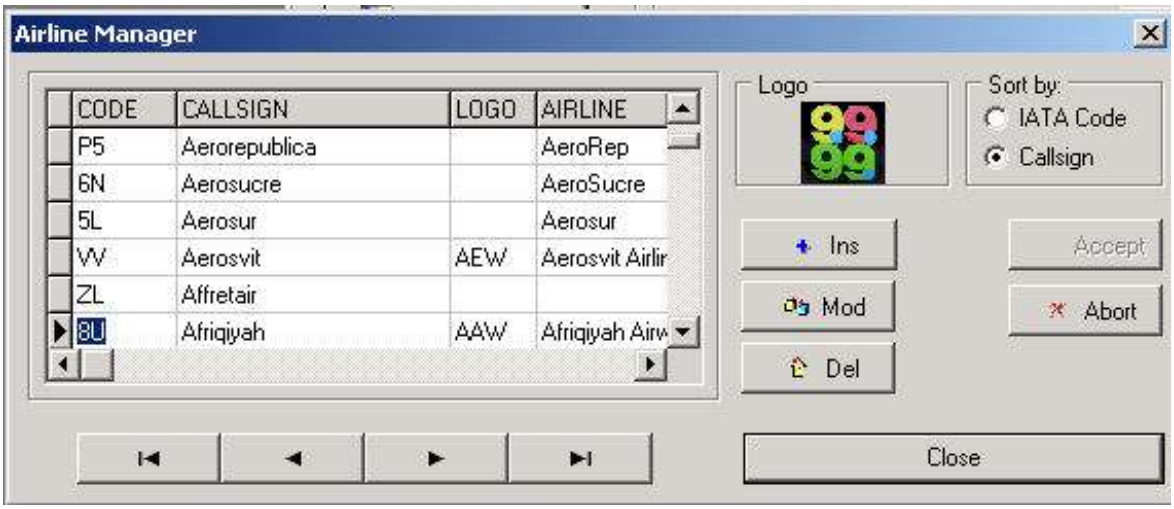


Fig.6-2 – Airline Manager window

To navigate the list, use the following button:

|< = sets the cursor on the first record of the list

< = moves the cursor one record up the list

> = moves the cursor one record down the list

>| = sets the cursor on the last record of the list

It's possible to sort the list in two modes: by IATA code column and by airline' CALLSIGN column.

If the bitmap is available, it will be displayed in the related frame on the window

To modify the list, use the buttons:

Ins , to add a new record to the list

Del , to delete the current selected record from the list

Mod , to edit the current record[16]

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[15] **It is possible to edit a record simply by selecting it and clicking on one of the fields; the cursor displays the edit (I) mode.**

[16] **It is possible to edit a record simply by selecting it and clicking on one of the fields; the cursor displays the edit (I) mode.**

Accept , to confirm the last operation of adding, editing or deleting a record

Abort , to abort last operation of adding, editing or deleting a record

Note: To edit the airline logo, click on the **[…]** button that appears at right in the logo field: a browse directory dialog window will appear for chosing the flag bitmap into the flag directory.

At the end of your activity, click on the “Close” button to close the window.

- *To INSERT a new airline: click on “+” to add a new record, fill-in the fields, then “Accept” for confirmation or “Abort” to abort.*
- *To DELETE a new airline: clock on “-“ to delete the current (selected) record, then “Accept” for confirmation or “Abort” to abort.*
- *To EDIT an airline: click on “^” to put the selected record in editing mode, perform the modification, then click on “Accept” for confirmation or “Abort” to abort.*

Note: If the <*Accept*> button is not enable, this means that your modification was already confirmed (this happens when moving cursor between fields).

Warning: **AITT2 monitors will display: LOGO if logo exists (for that callsign field) otherwise AIRLINE name if airline field is not empty otherwise CALLSIGN name if airline field is empty. The flight announcements will speaks the content of airline field (or call-sign if this is empty).**

7 The *user* flight

The user flight behaviour of AITT2 permits to “load” into the flights monitor, the flight plan that an user is using for his flight.
This “User” flight (UF) is monitored into the timetable as it was a normal AI traffic flight.
To activate this features, click on the “Inject” button in the “General Config” set of the main AITT2 form:

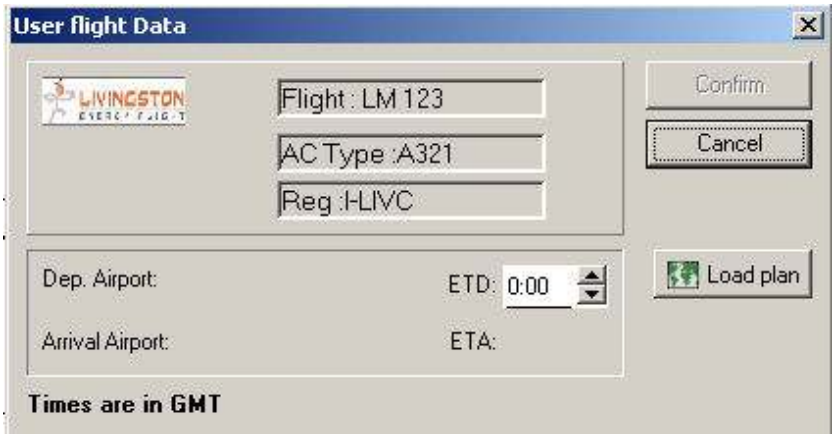


Fig. 6-1 – User flight data entry dialog

Warning: **The “inject” button is only active if a flight plan was already loaded into FS2004.**

In the first panel, there are all the user aircraft information collected by AITT2 with the use of the airline datas currently available (see also Cap.6).

The next step can be indifferently setting the GMT Estimated Time of Departure (ETD) or load the flight plan, **but it is fundamental to setting the proper ETD before click on the “Confirm” button.**

Once clicked on the “Load plan” button, the standard MS-Windows file browser will open in the current user folder.

To load FP properly, select the Documents directory and next the “File of Flight Simulator” folder, in which you’ll find all the plan files (.pln).

Select the same plan as used in FS2004.

After this operation, the User Flight Data windows will display the Departure and Arrival Airport.

The Estimated Time of Arrival (ETA) may be not available, depending on the user aircraft status (i.e. if the plan is loaded when the aircraft is on air or during taxiing).

Fig 6-2 – User flight data completed

Now is possible to click on the “Confirm” button and next click the “Monitor Live” button:

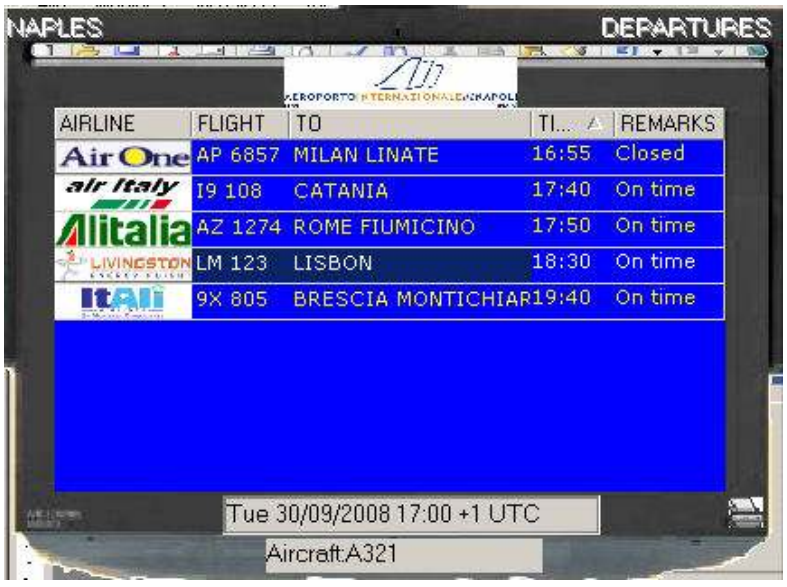


Fig.6-3 – Departure monitor with the UF (compare with fig.6-2)

From this moment on, the UF will be monitored as it was an AI flight in your environment.

Note: *The Arrival monitor will display UF around the middle of the whole flight*[17]

7.1 Removing the UF

The procedure of removing UF is almost simple. Once the UF is loaded, into the main AITT2 windows, the “Remove” button is active (see figure below).
Clicking on the button will display a simple dialog box:

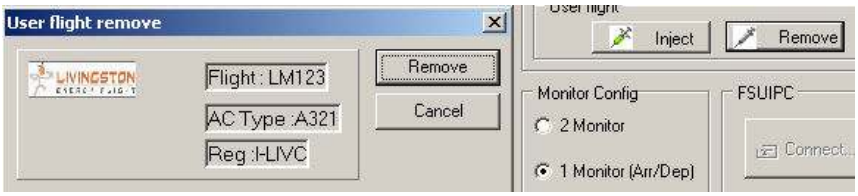


Fig. 6-4 Remove User Flight

Click on the “Remove” button and the UF will be deleted from the AI flight list.

Note: The UF will be deleted at the next (manual or automatic) Monitor refresh

[17] **Based on # of waypoints into the FP**

8 Printing time tables

To print a time table, click on the button on the down left side of monitor.

Note: If AITT2 is busy, the button will not show the “mouse-pressing” behaviour: wait just a couple of seconds.

The following screen will appear, depending on airport and monitor type (Arrivals or Departures):

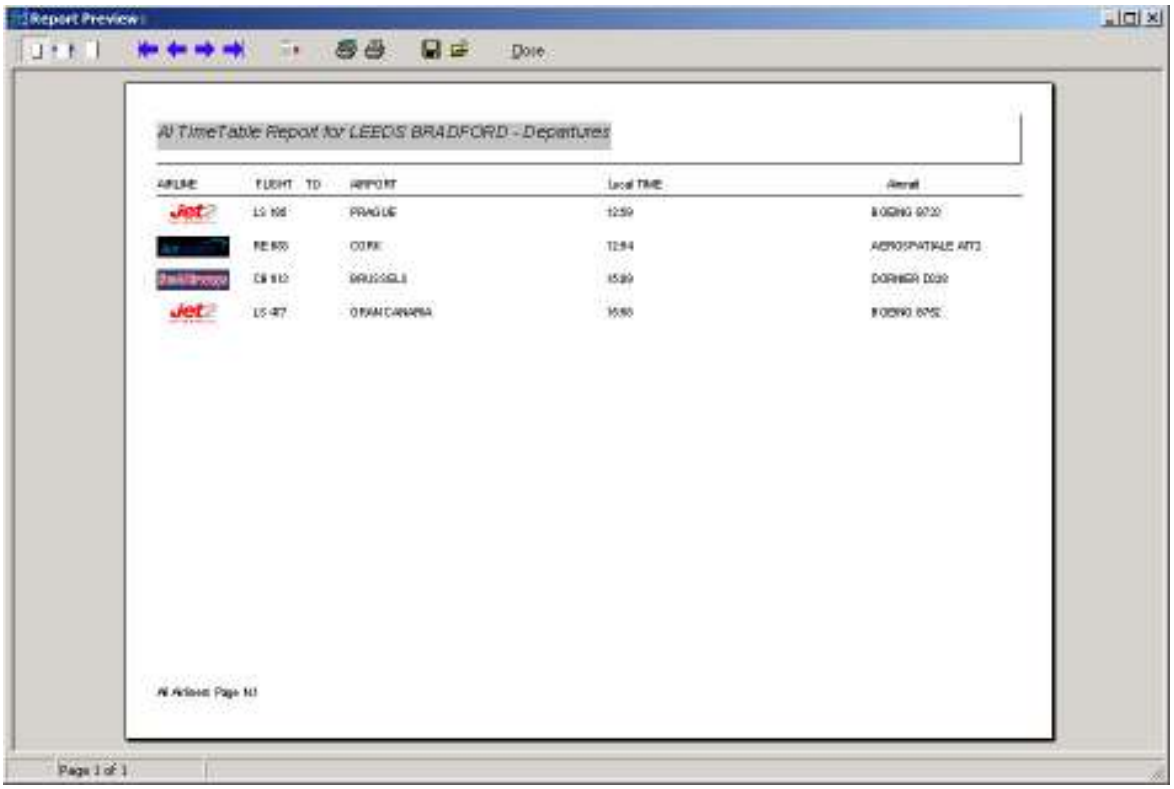
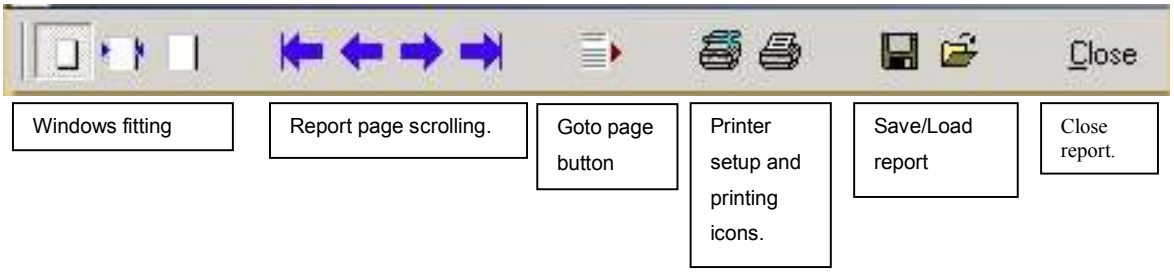


Fig.7-1 – Sample report printing

On the top of this windows you'll find some icons with the functionalities illustrated by hints activated by mouse pointer on them:



Note: The printed report is sorted only on the *Time* field