SIAP+MICROS

s032-03 Importa

Relational database data importing Software

User manual (vers. 5.11)

SUMMARY

Linked documentation

s011-i   *DYNAMIC RECORDs - Dynamic records layout description*

s032-01-di   *SUPERVIS - Monitoring/remote controlling supervision networks software*

s032-02-di   *GESTCONF- Configuration management program manual*

s032-04-di   *VALIDA - Data validation management program manual*

s032-05-di   *DATAVIEW - Report and graph generating software program manual*

s032-06-di   *SUPERA - Pollution above level of attention and alarm management program manual*

1 Document purpose

The purpose of this document is to provide a description of the functions and characteristics of this software package which deals with the memorizing of data on relational database.

2   System Architecture

The **Importa** application uses two structures to memorize data:

- a configuration database,
- a measures' database,

which it accesses through *'data supplying objects'*

The use or 'data supplying objects' essentially offers two advantages

- renders **Importa** independent from the type of database used,
- improves network application performance.

The configuration database contains information relative to the registry monitoring station, measure parameters, download data time planning, users and their availability.
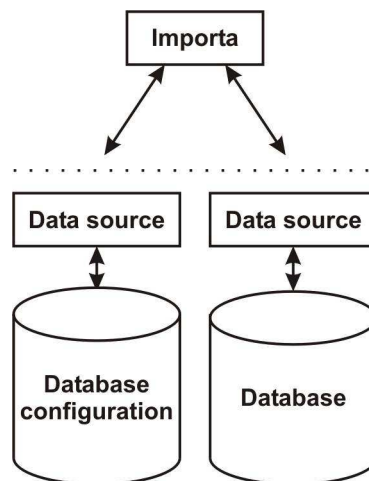
The measures' database contains all the data coming from monitoring stations.

All of the package modules are preconfigured to access the Microsoft Access database, created during the installation phase and situated in the following folder: C:\programmi\siapmicros\database

The database have the following nomenclature:

configuration   Cnf.mdb

situated data   Dati.mdb

alarms   Allarmi.mdb

To change the database names or to use the SQL_SERVER database it is necessary to change the importa.ini file.

2.1 'Importa.ini' configuration file

The 'Importa.ini' configuration file present in the installation directory, is created while starting Importa.
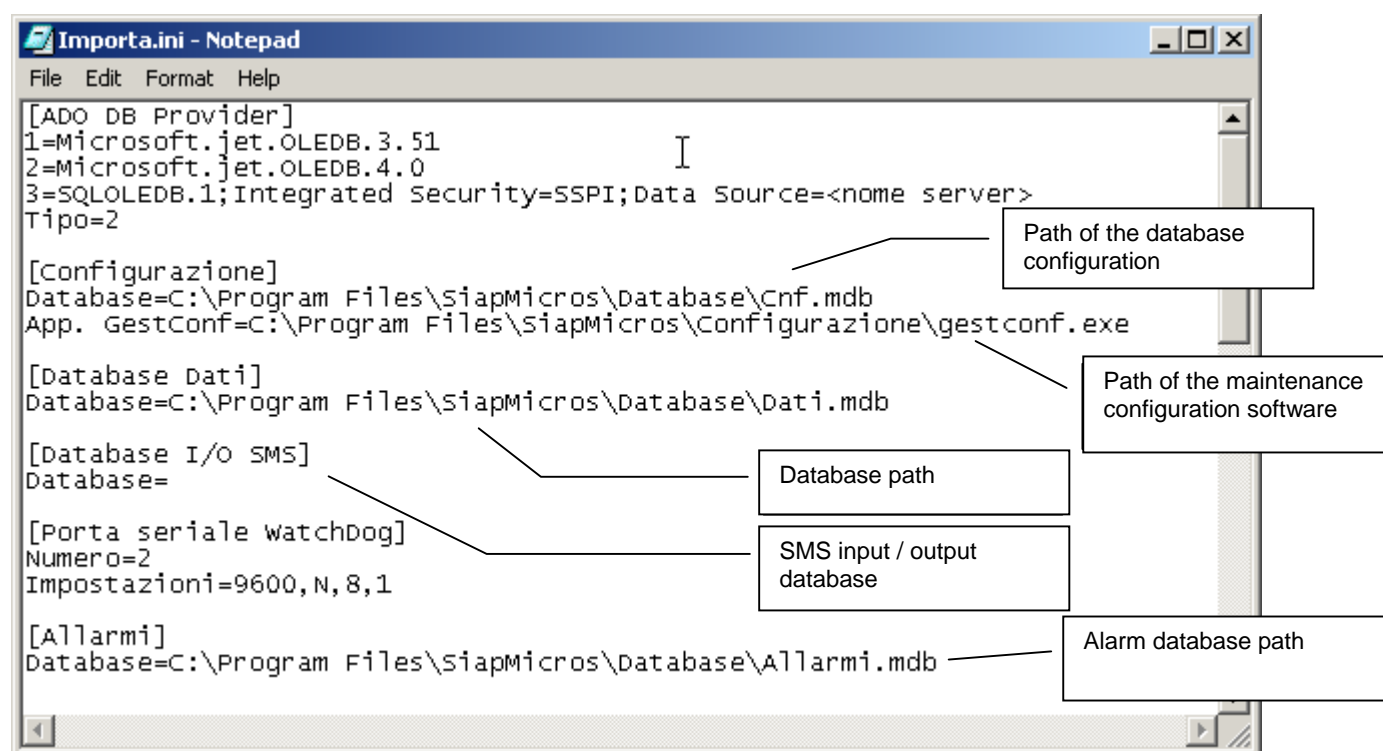
The configuration file is used to store a series of information which are:

- database path

- user personalization

The configuration file is divided into sections; section name is contained between square brackets.

Every section contains a series of lines whereby the left side of '=' symbol represents the label, while the right side makes up the value.

See herein a visual example of the ini file; on the right side of the image is a description of the most significant lines.
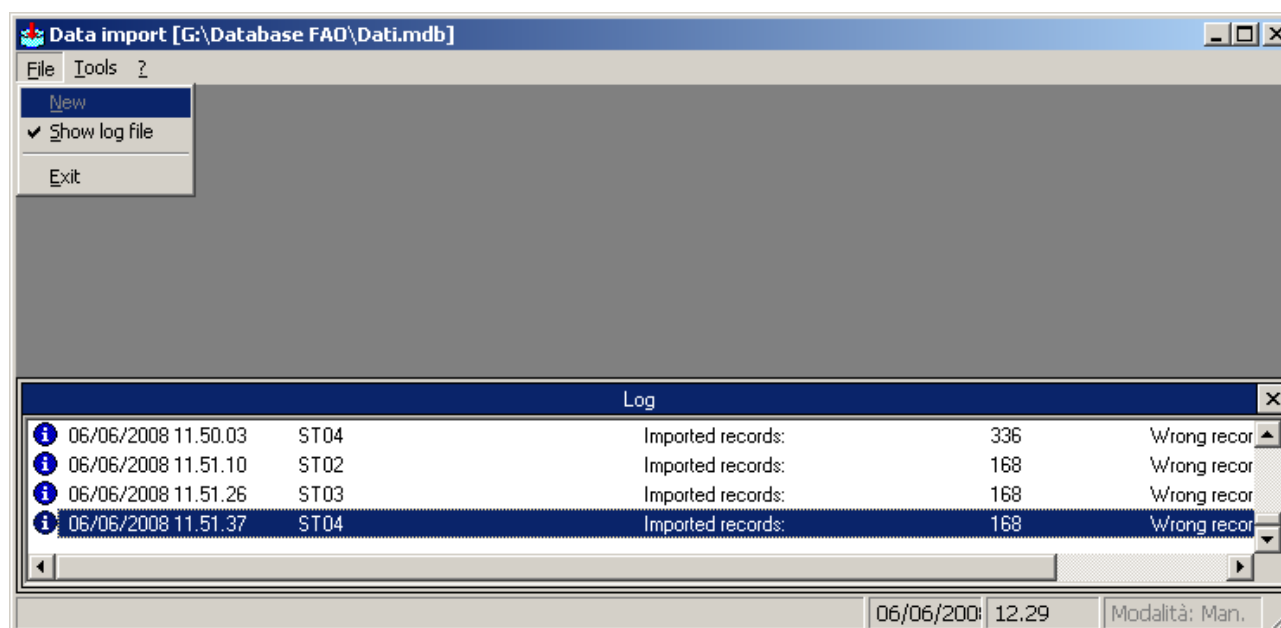
3   Starting Importa

Starting **Importa** (by double clicking on the icon) opens the main window, following which **Importa** will begin loading the configuration.

After having loaded the configuration, **Importa** brings up the main window, see sample here below.

A simple drop-down menu allows to access all the functions of the application.

4   Data importing

This operation consists in having **Importa** read a *file* of *ASCII* data produced by the data acquisition monitoring stations. With this operation the data corresponding to measure parameters is copied into the DATABASE and made available to the tools that software applications such as **Dataview, Valida, Supera** utilize for management and viewing

The **data importing** process can be done in a way that is completely automatic or in a manual way.
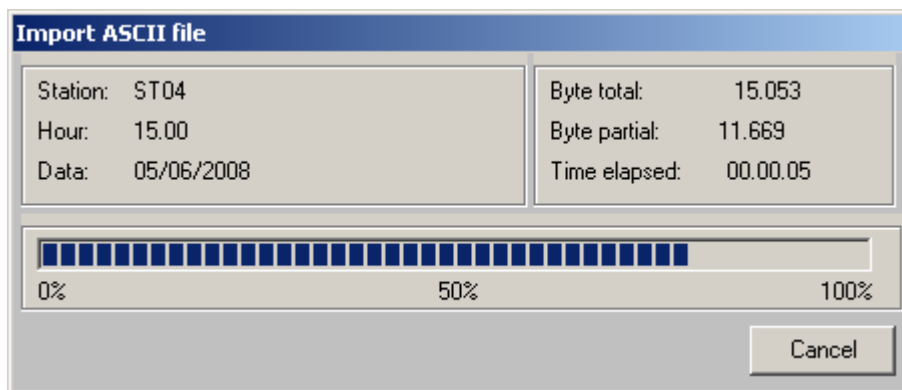
Importa can import data automatically by operating in configuration with another software package which, through dynamic data exchange (DDE), takes care of starting **Importa** by indicating which file to import.

In single configuration (*Stand - Alone*) instead, the operation can only be done manually.

It's possible to import ASCII file with MICROS layout, MMA file, CM4000 file. To activate the **data importing** operation follow the steps below:

- Select from the menu: '**Tools | Importa'**.

- This brings up a window that asks the user to set the name and path of the ASCII file to import

- Set the name and path of the *file* to import and click on the '**Open'** key.

This displays a window where by clicking on the '**Cancel'** key it's possible to cancel the operation.

The previous window shows information regarding the imported data which is constantly being updated during the data importing process. Clicking on the '**Cancel'** key will cause the immediate halt of the importing process, in any case the data imported up until that moment is correctly copied over to the DATABASE. The **importing** process can take a considerable amount of time, in proportion to the dimension of the *ASCII* data *file* to be imported.
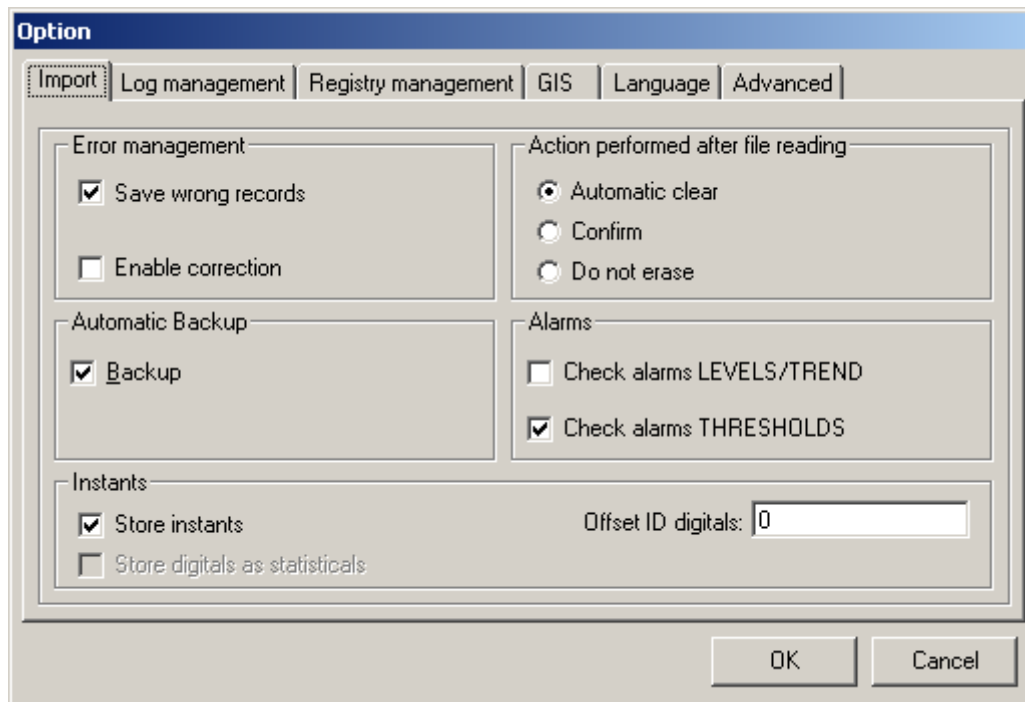

4.1   Importing setup

It is possible to specify certain options with regard to the importing of *ascii* data, this will allow to modify the behavior of the procedure.

To modify importing options select from the menu: **Tools | Options**.

These are grouped by type and are:

- Error management

- Automatic backup

- File erase

- Level or Trend alarm verification in relation to centre parameters

4.2 Error management

By selecting **'Record on file wrong records'**, **Importa** records in the ascii file 'Errori.dat', located in the 'X:\Importa\Ascii\Importa' directory, the records that show an incorrect structure with respect to the *'record layout' definition.*

By selecting **'Enable correction'**, **Importa** brings up a window that allows to modify eventual wrong records analyzed during the importing process.

Note. The 'Enable correction' option is activated only during the manual importing of data.

4.3 Automatic backup

Enable this option to automatically create a **backup** copy of the ascii data imported. **Importa** automatically creates a copy of the data imported, always in *ASCII* format, in *files* subdivided by period. Such *files* are located in the 'X:\Importa\Ascii\Importa' directory, their name made up by the month and year of which the data within them makes reference to and contain a copy of data relative to all stations. For example the 'MARCH2000.DAT' file contains a copy of the *ASCII* data imported corresponding to the period of March 2000 for all stations configured. These *files* are entirely *ASCII* and maintain the same structure of the **'record layout'** of the *file* imported.

4.4 File erase

Once the importing of data is complete, the *ascii file* created is no longer necessary because the data contained within it has been copied over to the *DATABASE* and if the option **'Create backup copy'** was enabled, the data was also copied over to the **backup** *files.* It is however possible to keep such file for other uses depending on the enabled setting. The three possible choices are:

- Erase automatically

- Request confirmation

- Do not erase

By selecting the first option **Importa** will automatically erase the *file* following the import procedure, by selecting the second option **Importa** will request confirmation to the user before erasing the *file* and last of all by selecting the third option **Importa** will not erase the *file*.

4.5   LOG file management

Importa allows to manage two LOG files. Such files are formed by a sort of journal whereby **Importa** registers all the operations carried out time after time.
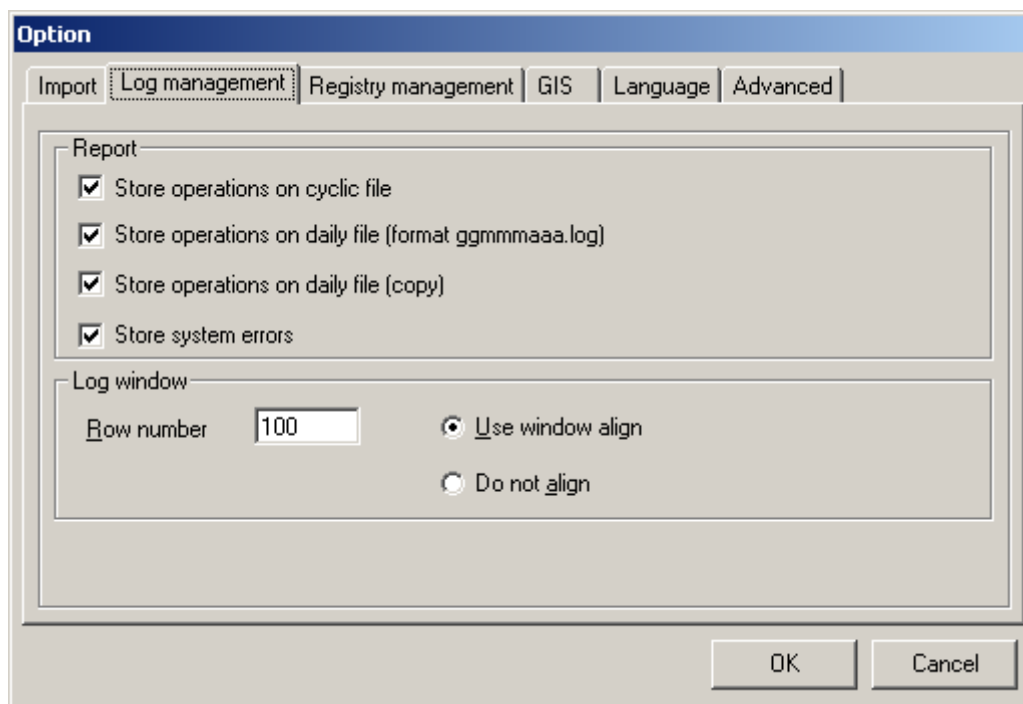
For every operation carried out a message is memorized formed by the *date*, *the station name* to which the operation refers to and a *description* of the operation itself.

Importa can register the trace of its own activity with both a cyclic LOG file, which means once it has reached the maximum limit for messages, the following messages are memorized over the existing ones and a daily LOG file who's name is in YYYYMMDD.log format.

4.5.1 Enabling/disabling LOG file memorization

To enable the memorization of messages relative to the operations carried out by **Importa** proceed as follows:

1. Select from the menu: **Tools | Options**; the following window appears

2. Select items accordingly in the 'Report' square
3. Set the number of messages of the cyclic file by modifying the value 'Number Rows' of the 'Window Log' square.
4. Press OK to confirm.

4.5.2 LOG message viewing

It is possible to view the messages contained in the LOG file on-screen. The messages are viewed in a window on a scrolling list. The window will only show the latest messages present in the cyclic LOG file. Every new message memorized in the LOG file will show on the window if the window has been activated.

To view the messages contained in the LOG file, proceed as follows:

*   Select from the menu: **File | View LOG file**

    In the main window a new window showing a scrolling list of (the latest) messages will appear.

To hide the message window proceed as follows:

*   Select from the menu: **File | View LOG file**

    From the item menu the check sign " ✔ " is taken away confirming it's been disabled.

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5 Alarm verification

Once the importing of data is complete, Importa runs a test to verify if level and trend thresholds for every parameter defined in the registry have been surpassed.

Eventual alarms are inserted in the same alarm database used by Supervis.

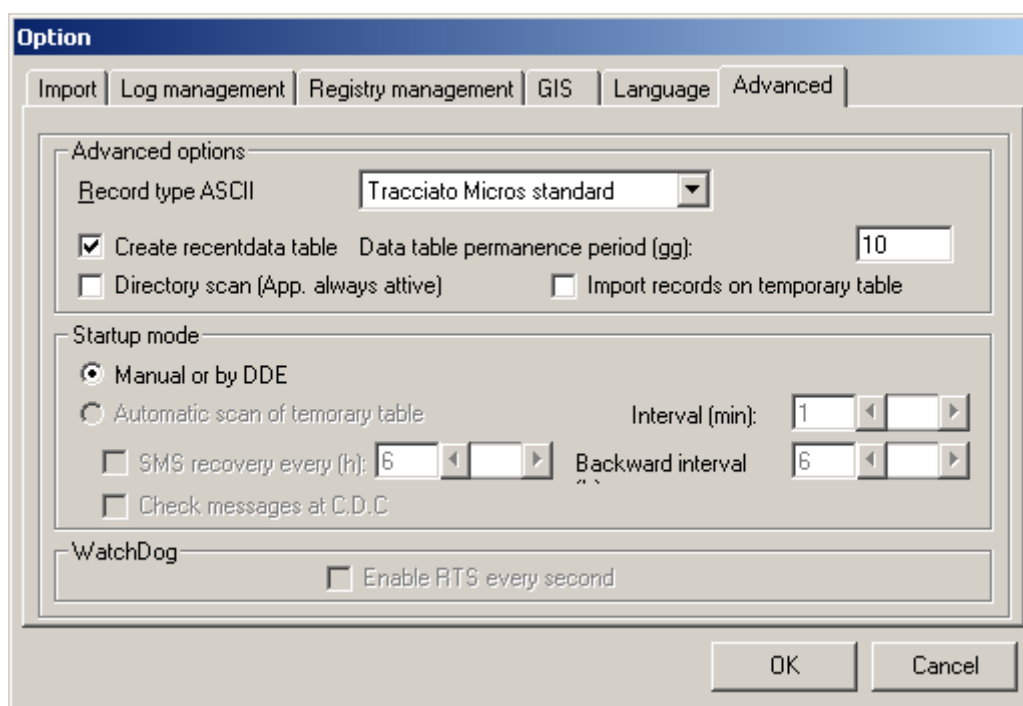To run an alarm verification manually, proceed as follows:

- Select from the menu: **Tools | Verify alarms**

6 Advance importing options

Importa offers several advanced importing functions.

To access these advanced options, proceed as follows:

1. Select from the menu: **Tools | Options**; the following window appears

2. Select the option 'Advanced':
3. Set new values
4. Press OK to confirm

Ascii file layout type:	Is the ASCII data file format coming from peripheral stations. A selector allows to choose from:
	Micros standard layout (see documentation s11)
	Micros layout for SMS
Create recent data table:	Allows to create a table within the database in which the data will remain for a given period of time. This period determined by the **'Days remaining time'** property.
	The data contained in this table is utilized by **Meteonet GIS** to update the synoptic.
Import into temporaty table:	By activating this property the data is imported into a temporary table without being analyzed.
	It is possible to enable another **'IMPORTA'** software application simultaneously/at the same time which will deal with the **'Automatic scanning of the temporary table'** by analyzing the content at regular intervals (**Interval min**).
SMS recovery:	By activating this property a recovery at set intervals is enabled for the setting a backward interval
CDC message verification:	By activating this property the verification of messages coming from satellite and memorized within a network database is enabled.
Start up methods:	It is possible to choose from:

- DDE (dynamic data exchange): the application is enabled automatically by Supervis

- Automatic scanning… :the application remains always running and analyses the new data inserted in the temporary table.

RTS Pilot:	By activating this property the RTS serial port line defined on section 'Watchdog serial port' in the configuration file fluctuates at a frequency of 1 Hz. The RTS signal can be used to test if the software application or the PC where the software application has been installed function properly.
Folder scanning:	By activating this property the software application is preconditioned to remain always running. The data importing process takes place periodically (scheduling) on the basis of a pre-set exporting time schedule programmed in the configuration module.

The DDE method is disabled

7   Data distribution viewing

It is possible to analyze the completion of data inserted for each station.

An annual calendar indicates the days in which data is present, days with incomplete data or days that have no data. The verification of days where data is incomplete is carried out only in case the station forsees the registration with prefixed cadence.

To view the calendar select 'Tools | Input record check'; the following window appears

Pressing the 'Update' key updates the calendar view.

Pressing the 'Insert' key allows to enter in the database, for the day selected, the missing records placing a null value for all the measures of the selected station.