



Environmental monitoring solutions



Gidas Viewer

User Manual

Update 01/30/2023

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1. Introduction

GidasViewer program allows the display and re-processing of data stored in database SQL Server (©Microsoft) *Gidas*.

2. System requirements

The program needs following hardware and software:

Personal computer

- Processor at 600 MHz operating frequency or higher. 1 GHz recommended;
- Display: SVGA res. 1024x768 or higher;
- Operating system (*):
 - Microsoft Windows 7/2003/2008/8/10
- Microsoft .NET Framework 3.5 and Microsoft .NET Framework 4 (**);
- LSI LASTEM 3DOM program (updated to the last available version) previously installed to communicate with the instrument;
- Instance of SQL Server 2005 or superior(***)).

(*) Operating systems must be updated with the latest update released by Microsoft and available through Windows Update; for operating systems not listed is not guaranteed correct and complete operation of programs.

(**) On Windows 8 and superior you can enable .NET Framework 3.5 and .NET Framework 4 manually from the Control Panel. In the Control Panel you can use Add Programs and Features, then Enable or disable Windows features and then select the check box Microsoft .NET Framework. This option requires an Internet connection.

Microsoft .NET Framework 4 is only required to install SQL Server Express and create the *Gidas* database,

(***) *Gidas* database can also be installed on free versions *SQL Server Express*. For the system requirements of *SQL Server Express*, see the *Gidas Database Management* documentation released with this program or visit the official Microsoft site [http://technet.microsoft.com/en-us/library/ms143506\(SQL.120\).aspx](http://technet.microsoft.com/en-us/library/ms143506(SQL.120).aspx)

The procedure to install *Gidas* database installs the 2014 or the 2017 version of *SQL Server Express* if required.

Program *GidasViewer* can also connect to remote instances of *SQL Server*.

3. Gidas database creation

GidasViewer program has got a guided procedure for the creation of *Gidas* database; this procedure is also automatically started at the end of *GidasViewer* installation.

3.1. SQL Server

Gidas database uses Microsoft SQL Server 2005 or superior.

Microsoft SQL Server is Microsoft product for databases management and there are different versions available, depending on the complexity of data bases and corporate processes which have to be managed. Particularly *Express* version is the free version of *SQL Server* (for more information see Microsoft official site).

SQL Server is installed as service and it runs as a bridge between the application and the database. Every *SQL Server service* can manage many databases and in every computer many *SQL Server* services can be installed. Any service can be distinguished with its name: a service of *SQL Server* is also called *Instance* of *SQL Server*.

Gidas database can be created on any version of *SQL Server 2005* or superior installed on the local computer or in a network connected host. Support for versions higher than *SQL Server 2017* is not guaranteed.

For more information about the management of the database *Gidas* you can look inside the document *Management of the Gidas database* available from the Windows menu *Start* → *All programs* → *LSI_Lastem* → *Gidas*.

3.2. Creation of Gidas database through guided procedure

The guided procedure starts automatically after the installation of *GidasViewer* program, or you can alternatively start the guided procedure from the menu *Tools* → *Create Gidas database*.

The first screen of the procedure allows user to create a new database *Gidas* or to connect to an existent one.

If the user decides to create a new database *Gidas* the second screen of the procedure determines whether the database will be created locally or in a networked environment. In this case it is assumed that in the corporate network is already configured a *SQL Server* service.


The next screen will depend on the choices made by the user and the guided procedure ends with the creation of the database file in the selected instance of *SQL Server*.

3.2.1. Creating the database in a network service

To create the database in a *SQL Server* service network it is necessary to specify the connection parameters to that service. The connection parameters should be required to the database administrator and are set in the following screen:

Gidas Database Configuration Wizard

Creation of the database file on a network server

LSI Lastem 

Contact your database administrator to get the connection settings to be used to connect to the network SQL Server Service: connection settings request database administrator rights.

SQL Server Instance:

Use Windows authentication
 Use SQL Server authentication

User:

Password:

Connection test

< Previous Next > Finish Cancel

To create the database file is necessary that the user connecting to the SQL Server service has administrator rights on that service.

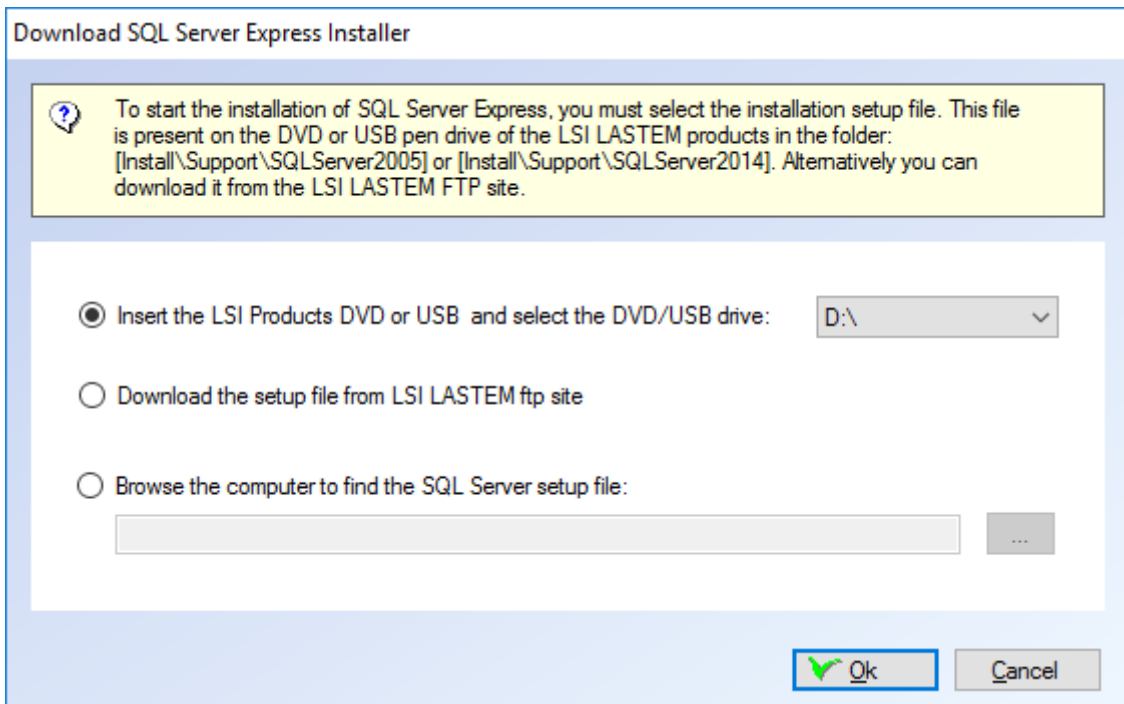
The <Network Search> button performs a search of the instances of SQL Server within the corporate network; depending on the firewall settings and services, not all instances in the network, might be included in the response.

3.2.2. Creating the database on the local computer

The creation of the database *Gidas* on the local computer varies depending on whether your computer has already installed a SQL Server service or not.

If the local computer has no SQL Server service installed, the wizard will install the free version of *SQL Server Express*. The SQL Server version is determined by the characteristics of the operating system: *SQL Server Express 2005* for systems prior to Windows 7, *SQL Server 2014* for system from Windows 7 and *SQL Server 2017* for system Windows 11 and Windows Server 2022. The SQL Server is installed as an instance named LSIDB.

The setup files are located on the DVD/USB installation support of LSI LASTEM products or can be downloaded from our FTP site:



The file to install *SQL Server 2005 Express* is located in the DVD/USB in this path:

`Install\Support\SQLServer2005\sqlexpr.en.exe`

The file to install *SQL Server 2014 Express* is located in the DVD/USB in this path:

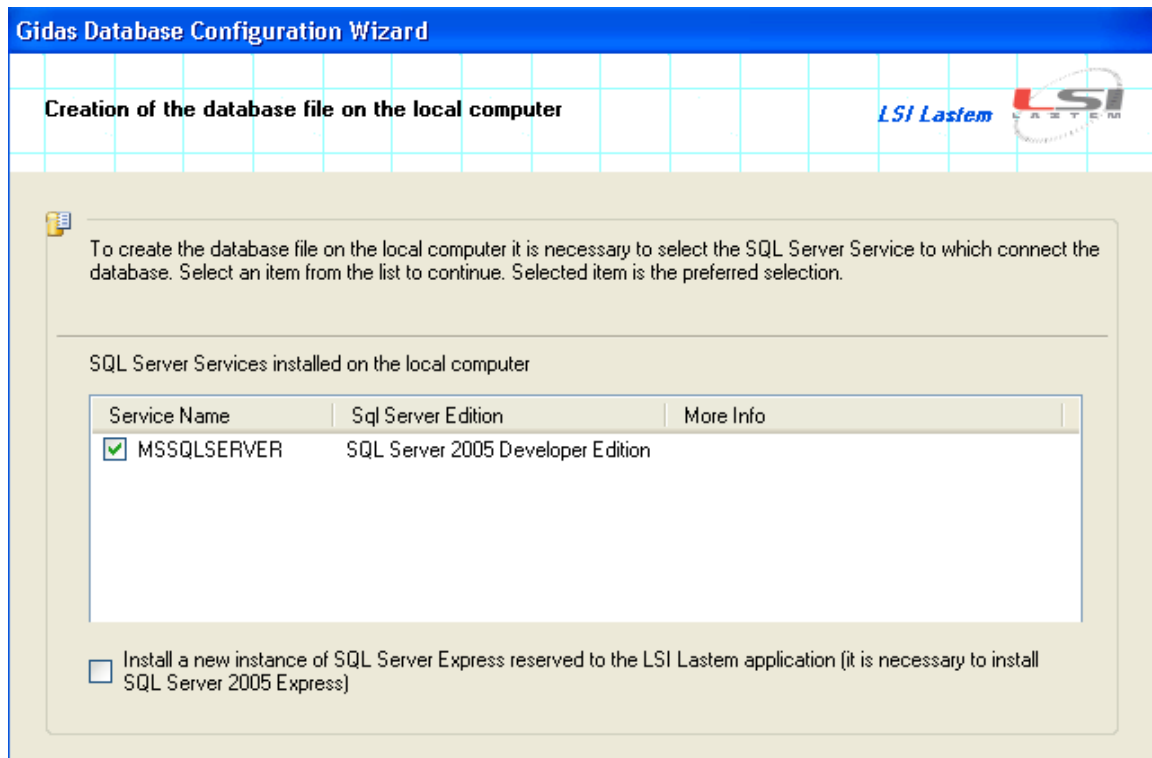
`Install\Support\SQLServer2014\sqlexpr2014.en.exe`

The file to install *SQL Server 2017 Express* is located in the DVD/USB in this path:

`Install\Support\SQLServer2017\sqlexpr2017.en.exe`

After installation, you can complete the procedure by creating the database file;

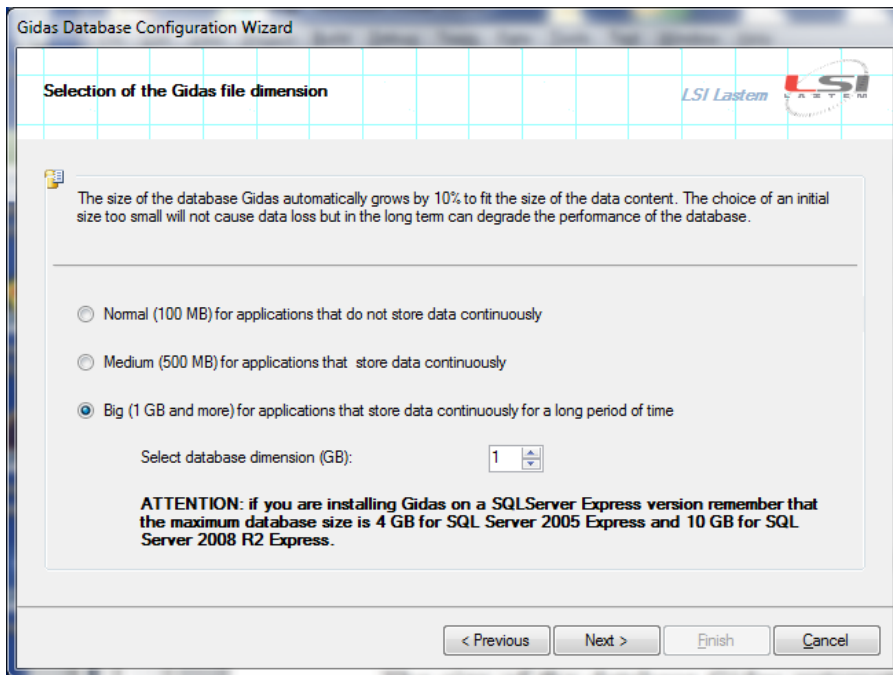
if the local computer already has one or more SQL Server services, the procedure shows a summary screen where the user can choose which instance to use to manage the *Gidas* database; depending on the user's choice, could be necessary to specify the connection parameters to the selected service.

**WARNING**

The setup of SQL Server Express versions has disabled remote connections by default: it means that database isn't visible from a networked host. In order to enable the remote connections for SQL Server 2005 Express follow the instructions in this document: <http://support.microsoft.com/kb/914277/en-us> ; for superior versions follow ([http://msdn.microsoft.com/en-us/library/ms179383\(v=sql.120\).aspx](http://msdn.microsoft.com/en-us/library/ms179383(v=sql.120).aspx))

3.2.3. Selection of the initial size of the database

When you create a new database Gidas is possible to determine the initial size of the data file. The size of the database Gidas automatically grows by 10% to fit the size of the data content. The choice of an initial size too small will not cause data loss but in the long term can degrade the performance of the database.



Remember that if you are installing Gidas on a Express version of SQL Server there is a limit on the size of the data file:

- 4 GB is the maximum for SQL Server 2005 Express
- 10 GB is the maximum for SQL Server major version

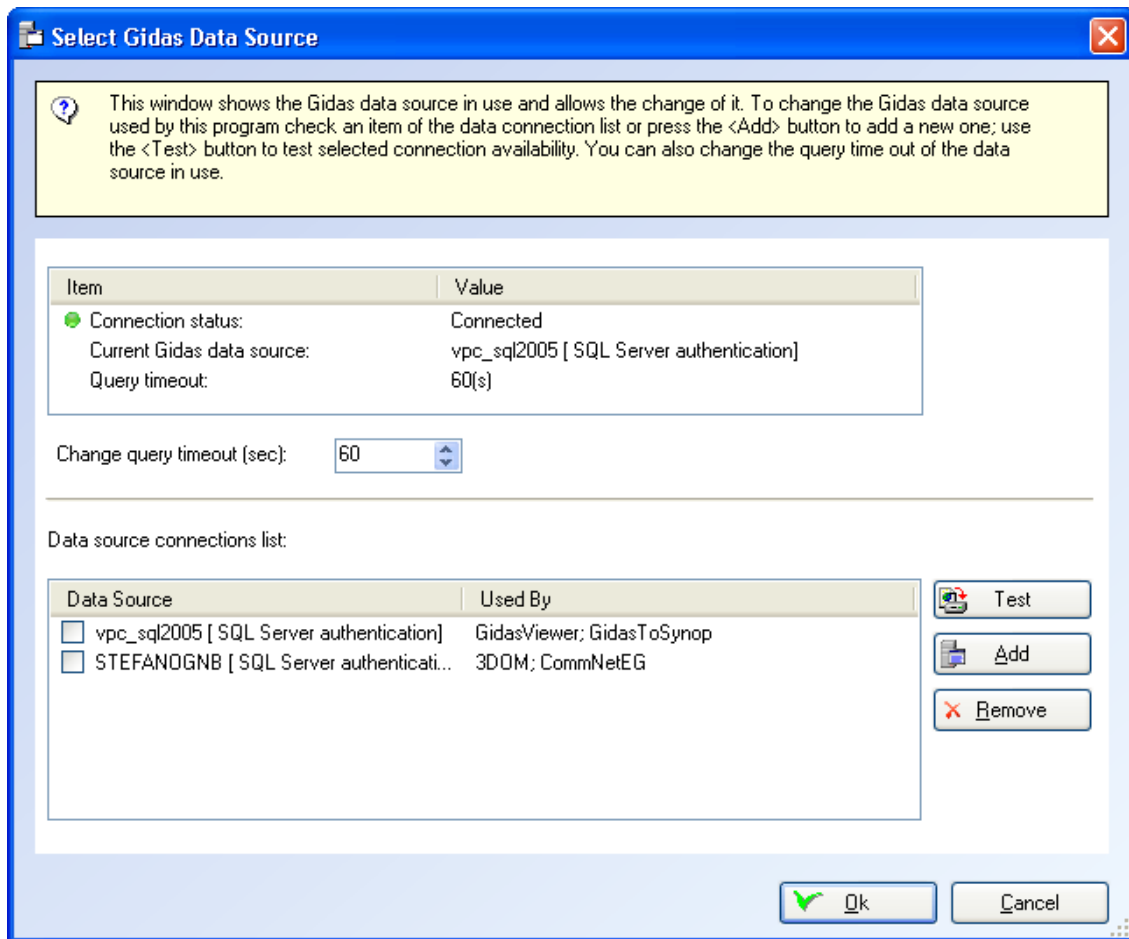
3.3. Gidas database management

The document *Gidas database management* describes the main tasks to manage *Gidas* database and SQL Server. To read this document select *Windows Start* → *All Programs* → *LSI -Lastem* → *Gidas*.

We recommend to effect periodic backup operations to avoid data loss.

3.4. Connection to Gidas database

When you start program first time, you need to specify *Gidas* database to which it has to connect. If the program is started on the same computer where the guided procedure has been used for the creation of the database *Gidas* (3.2) the program is already configured and no additional operation is required. Otherwise the program automatically shows the *Select Gidas Data Source* window that can also be started in a second time using the menu *File* → *Change Data Source*.



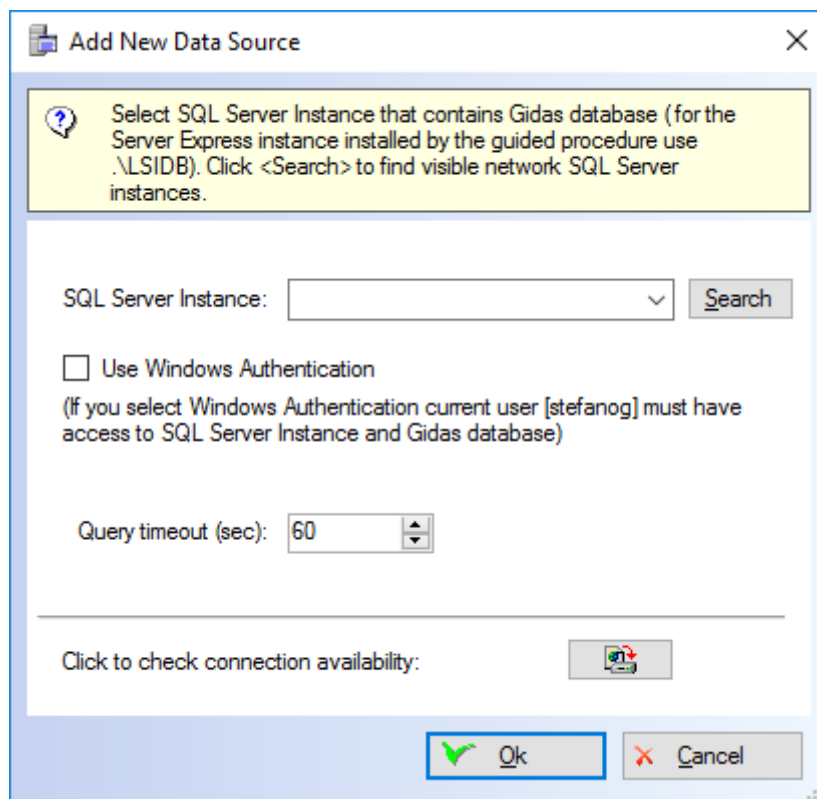
This window shows the *Gidas* data source in use and allows the change of it. To change it check an item of the data source connection list or press the <Add> button to add a new one; use the <Test> button to test selected connection availability. You can also change the query time out of the data source in use (this number can be increased if a poor performance database server is used).


The list of the available data sources contains the list of all the data sources inserted by the user, therefore initially it is empty. This list also shows the data source used by the various LSI-Lastem programs.

The <Remove> button removes a data source from the list: this does not change the configuration of programs that use the deleted data source, which will continue anyway to use it.

3.4.1. Add a new Data Source Connection

To add a new data source connection press the <Add> button of the previous windows to show the *Add New Data Source* window.



Specify the instance of SQL Server it has to connect to and check connection through key . The list shows the only instances of SQL Server which have been identified in local computer. To add instances on the network press *<Search>* (not all network instances might be displayed according to the settings of firewall or individual SQL Server instances). The name of a SQL Server instance has following format:

servername\instance name

where *nomeserver* is the network name of the computer where SQL Server has been installed, in case of local instances it's possible use whether name of the computer or word (*local*) or only the point (.)

In this window it is also possible to set the timeout for the data queries sent to the database.

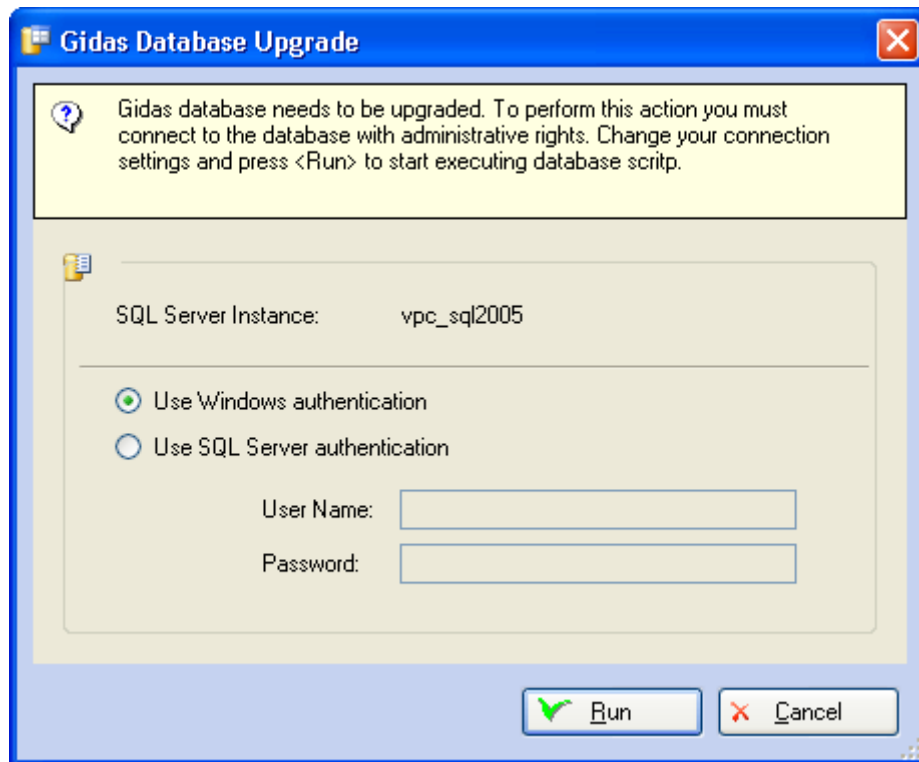
WARNING

Use the Windows authentication if the connection verification fails. If the instance of SQL Server is in the network and the Windows authentication fails, contact your database administrator.

3.4.2. Update of Gidas database

Select menu ? → *Information about Gidas database* - to display the release of connected database.

In case of connection to previous Gidas database release, the program starts the update routine automatically. The administrator's rights could be required according to the release to update. In this case the program will show following window:

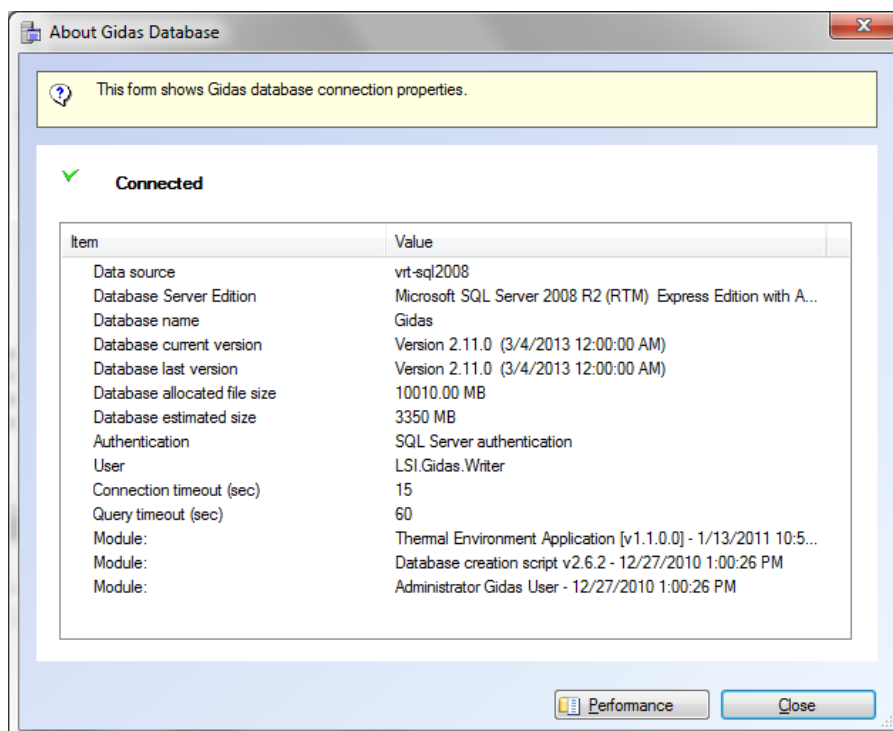


WARNING

To update the database you must connect to the SQL Server with administrative rights. Use the Windows authentication if the connection verification fails. If the instance of SQL Server is in the network and the Windows authentication fails contact your database administrator.

3.5. How to get information on the database Gidas

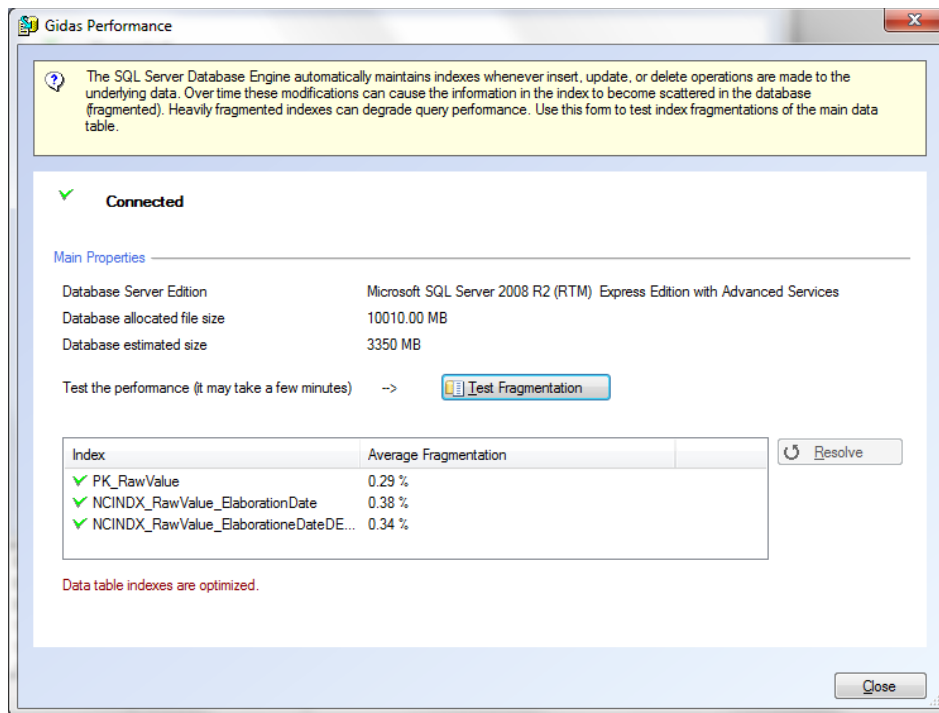
To get information on the database Gidas select the menu ? → *About Gidas Database*:



This window displays extensive information on the database Gidas in use.

Especially useful are *Database Server Edition*, *Database allocated file size*, *Database estimated size*. If you are using a version of Microsoft SQL Server Express (as in the figure above) the maximum data size cannot exceed 4GB for SQL Server 2005 Express and 10 GB for major version. When the estimated size of the database exceeds the 90% of this limit the window displays a warning.

The button *<Performance>* opens a window that allows you to check the status of fragmentation of the indexes of the main data table of the database by pressing the button *<Test Fragmentation>*:



If the indexes of the table are very fragmented you can be reorganize them using the button *<Resolve>*.

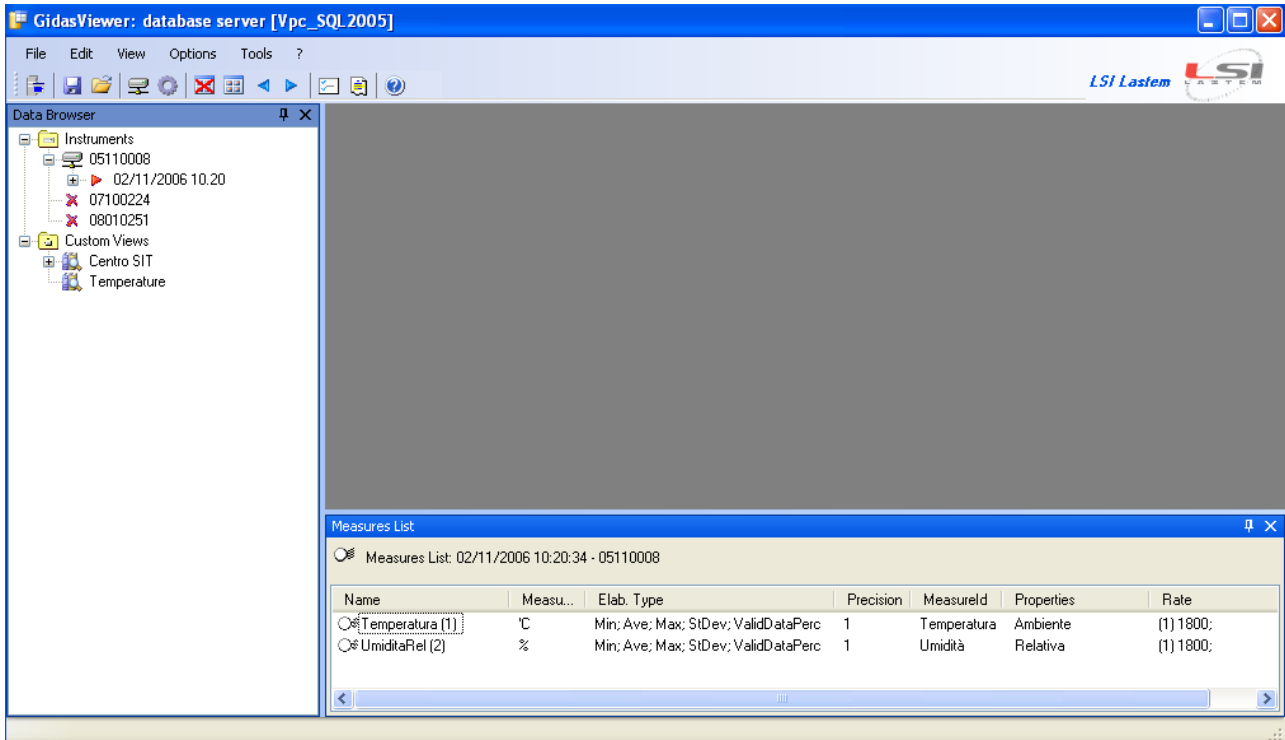
ATTENTION:

on a very large database operation testing and reorganizing the indexes can take several minutes during which the database may no longer be accessible.



4. Using the program

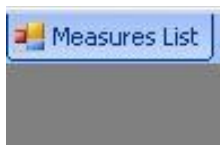
4.1. User interface presentation

If at start the program is connected to valid *Gidas* database, the program looks like following mask and displays the window of *Browser* and the window of *Proprieties*.



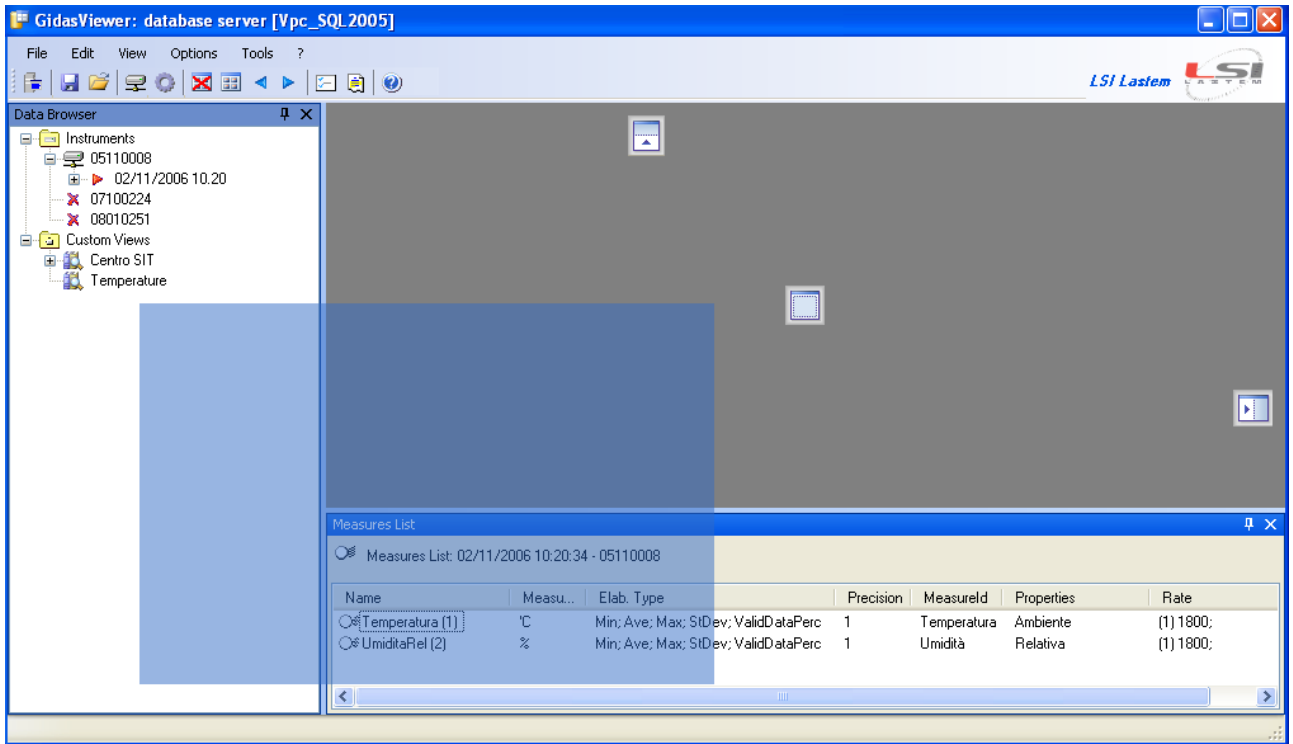
It's possible that program looks different because the position of these windows can be modified:

- If window shows the icon  in the title bar, the window is always visible; if it shows the icon  it means that the window hides itself automatically when it isn't selected, and shows only a label anchored to the border of main window. In order to restore the window click mouse on this label.

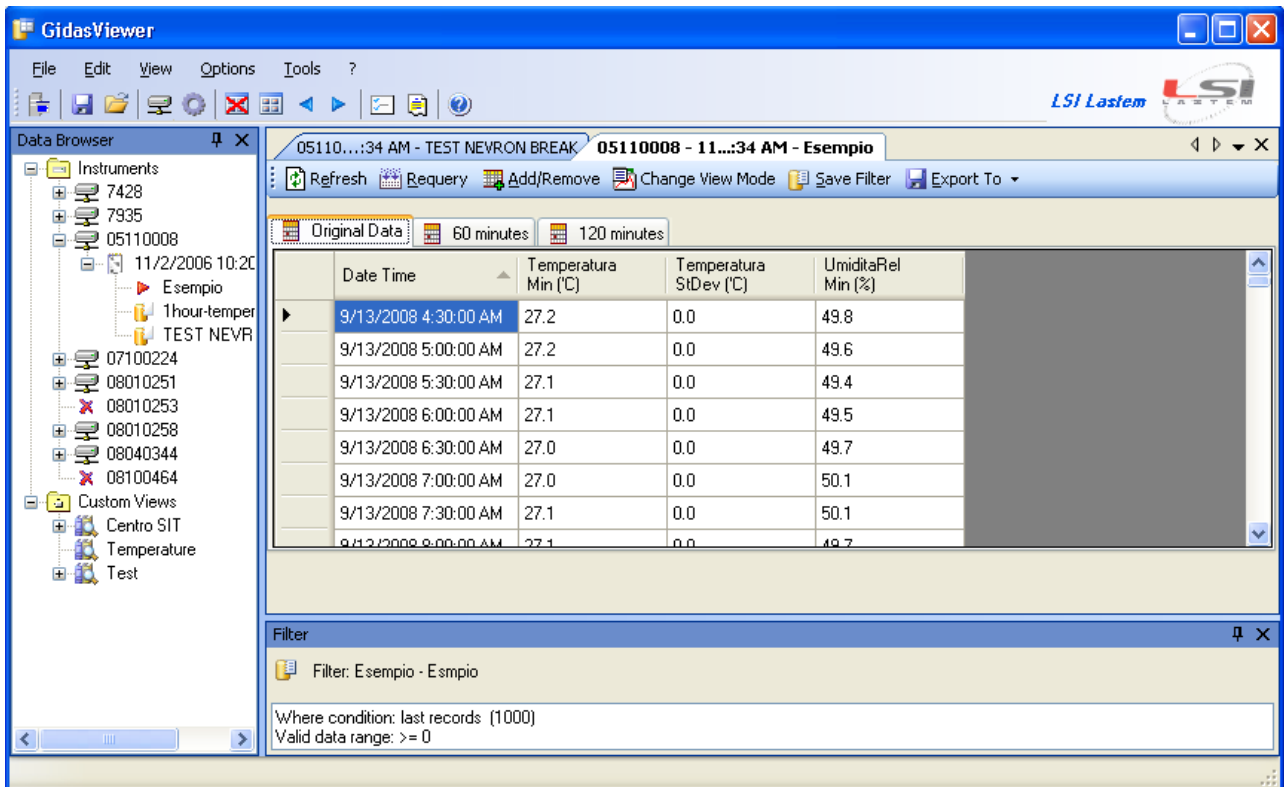


In order to modify the look of display icon click on it.

- It's possible move the windows and anchor them in other positions of the display dragging them by title bar: during dragging the possible new anchorage positions are displayed.



When the data are displayed, the windows that include the data are displayed in the centre of main window:



4.1.1. Menu

The program has following menus:

File

- *Change Data Source*: it displays the modification window of Gidas database's instance used by the program. The program can use both local and remote databases.
- *Page Setup*: it displays the system window for setup of page orientation for printing of charts
- *Default Printer*: it selects the default printer for printing of charts
- *Save Profile*: save a layout profile (§4.11);
- *Save Profile As*: save a layout profile with a different name;
- *Open profile*: open a profile from the list of the available profiles;
- *Close Profile*: close the active profile;
- *Exit*: it closes the program;

Edit

- *Add Custom View*: it adds a personalized view to Browser's window (§4.4);
- *Management Groups*: it displays the management group windows (§4.4.2);

View

- *Instruments Browser*: it displays the window of Browser.
- *Properties Windows*: it displays the properties window.
- *Close All Data Viewers*: it closes all data display windows.
- *Arrange All Data Viewers*: it arranges all data viewers automatically.
- *Browser Refresh*: it updates the data of Browser requesting them the database again.
- *Scroll Forward All Data Viewers*: it scrolls forward all visible data viewers.
- *Scroll Backward All Data Viewers*: it scrolls backward all visible data viewers.
- *Reset Default Layout*: it resets the default application layout.

Options

- *Program Settings*: it shows the window with general program settings.
- *Text File Export Properties*: it shows the setups window in order to format date and numeric values when you are exporting data on text file.

Tools

- *Create Gidas Database*: it starts procedure for Gidas database installation.
- *Instrument Backup*: it stores data of one instrument in a compressed binary file.
- *Instrument Restore*: it restores data of one instrument from a compressed binary file.
- *Import Data from InfoGap Database*: it imports data from a valid InfoGAP database.
- *Import Data from Mobile Device*: it imports data from a valid Gidas mobile database.
- *License Manager*: it starts the License Center program

?

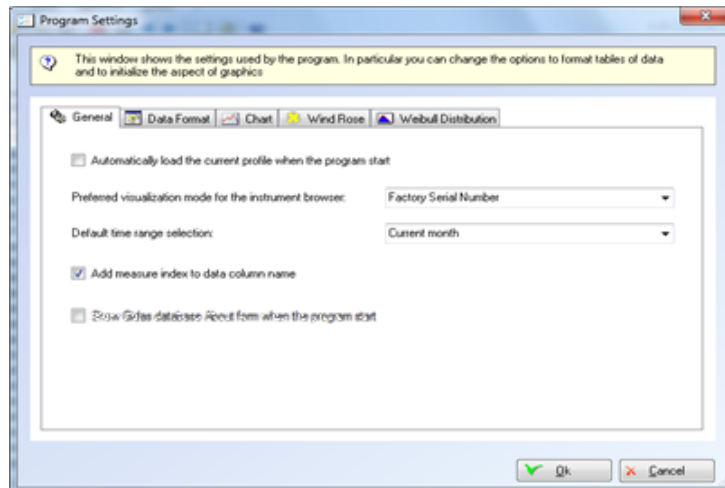
- *Contents*: it shows program's user manual.
- *Gidas Database Management*: it shows Gidas database management user manual.
- *Check for updates*: it starts the request of program's updates.
- *About*: it shows the window with information about program.

- *About Gidas Database*: it shows the window that displays the information about connected Gidas database.

You can find some of these menu's entries in the key bar below main window's menu.

4.2. General settings

To view or edit general program settings select menu *Option* → *Program Settings*:



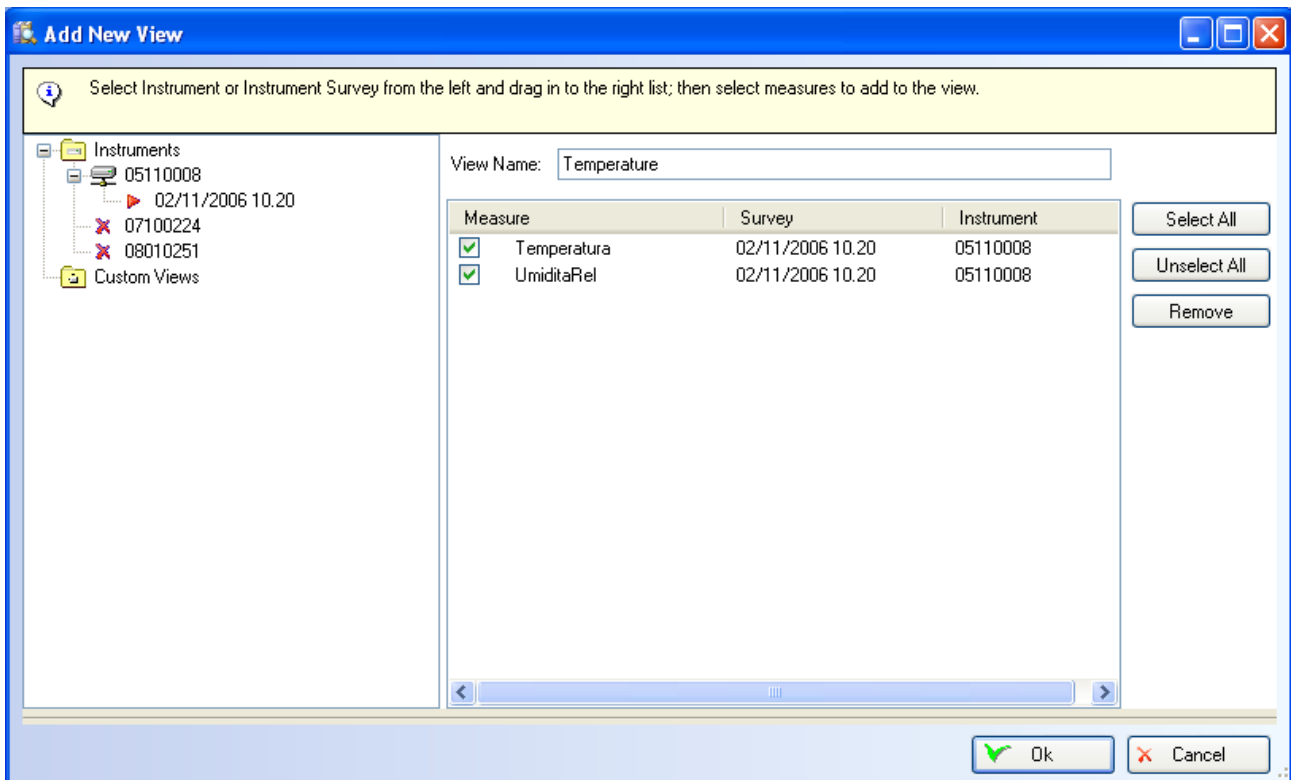
The *General* tab allows the program to automatically load the profile in use when the program when closed (§4.11), set the preferred visualization mode for the instrument browser (§4.4), the default time range selection (§4.6), decide whether to add the index measure to the name of the columns of data and allows the program to automatically show the Gidas About form when the program starts (§ 3.5) . The *Data Format* tab set the format for the displayed data (§4.10); the *Chart* tab set the chart settings (§4.10.4); the *Wind Rose* tab set the wind rose settings (§4.7); the *Weibull Distribution* tab set the *Weibull* calculation settings (§4.8).

4.3. Custom views

Through this program you can fix some personalized views in order to aggregate data coming from different instruments and/or surveys.

Use menu *Edit* → *Add custom view...* to add a personalized view or click mouse right key on *Custom views* of *Browser* selecting menu *Add new view*.

These operations show setup/change window of personalized views:



On the left side of the window you can find the instruments included in database with their surveys: select instruments and/or surveys that you want include inside personalized view and drag them in the list on the right side of the window.

Input the view name and select / de-select the measures displayed by the list and press *Ok*.

The personalized views are included in database and displayed by *Browser*. In order to modify or delete personalized views use contextual menu on node *Custom view* of *Browser* (§4.4.3).

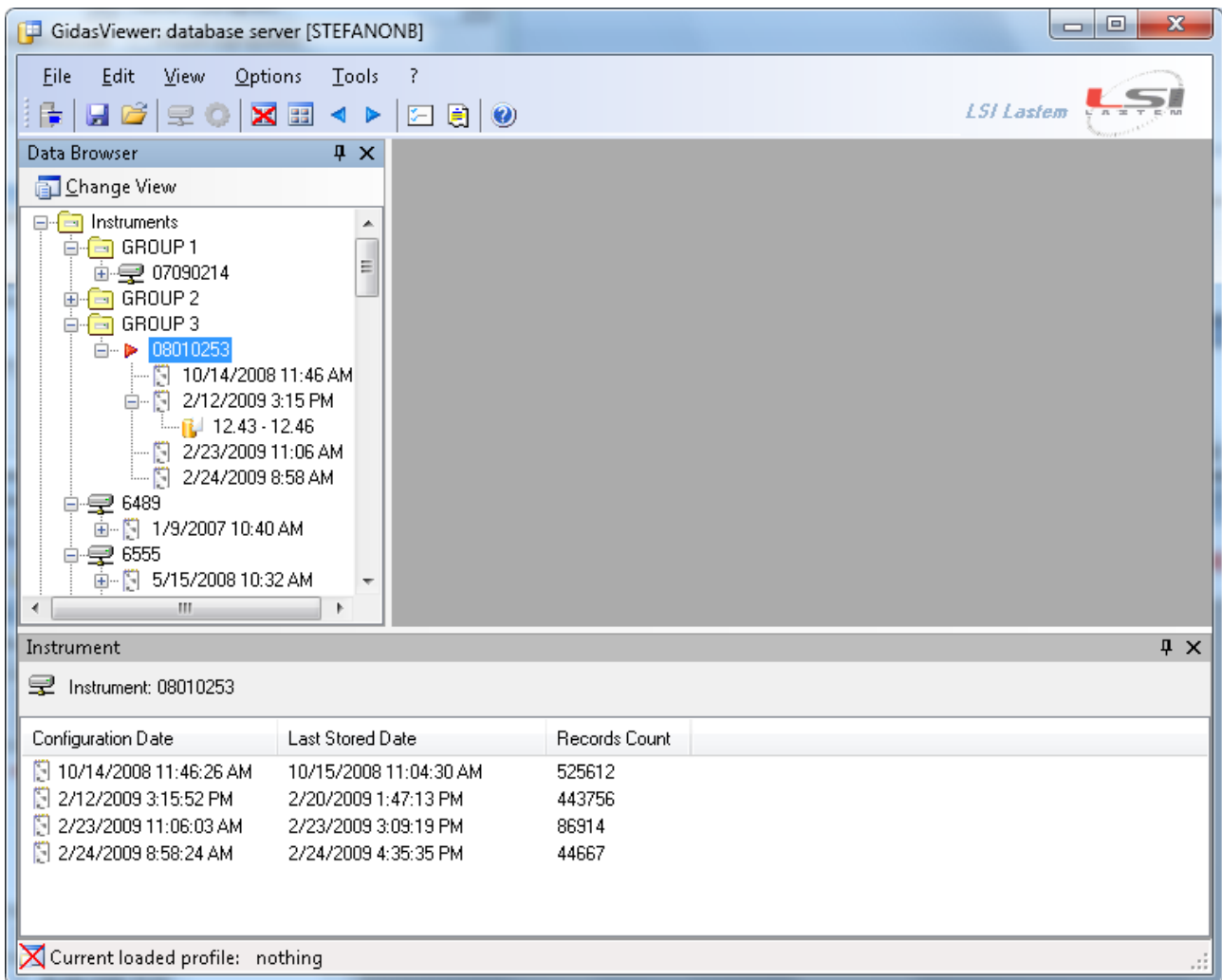
4.4. Browser

The *Browser* displays the contents of database in use and shows the list of all instruments and custom views included in this menu.

4.4.1. Instruments

Each *Instrument* has its serial number and includes the list of surveys contained in database. For E-Log instruments the surveys correspond to configurations: if you never modify the E-Log instrument's configuration it'll include only one survey.

Selecting one instrument the properties window will show the list of included surveys; if you select one survey the properties window will show the list of included measures and elaborations.



By selecting the <Edit> button on the window that shows the *Survey properties* you can change the *Name* and *Measures Units* of the measures that are part of the *Survey*. If you have opened tables or graphs that display data of this *Survey*, you need to close the views and reopen them to update the changed column names.

Click mouse right key on one item of the *Browser* and it'll display the contextual menu that shows the available operations.

Instruments available operations:

- *Remove*: it deletes the selected instrument and all its included data.
WARNING
Irreversible operation.
- *Change Description*: it changes the description of the instrument (§ 4.4.2.1)

Surveys available operations:

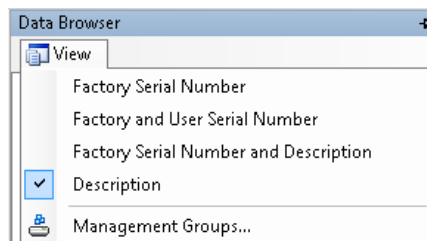
- *Show data*: it displays processed data included in the survey (§4.6)
- *Show Wind Rose Data*: shows wind rose data included in the survey (§4.7)
- *Show Weibull Wind Rose Distribution*: shows Weibull distribution (§4.8)
- *View instantaneous data*: it starts monitor for display of instantaneous data (§4.14).
- *Remove*: it deletes selected survey and all its included data.

WARNING

Irreversible operation.

4.4.2. Display and grouping options

By default instruments are displayed in order of their serial number. You can change the display of instruments by selecting the *Change View* menu of the instrument browser:



Every instrument is identified by:

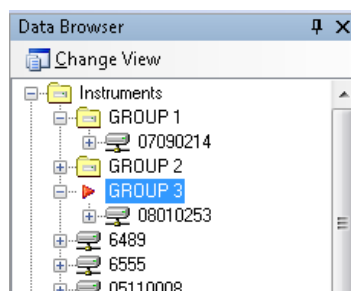
- *Factory Serial Number*
- *User Serial Number*
- *Description* set by program *3DOM*
- *Description* set in the database by program *GidasViewer*

The first three elements are updated in the database each time data of the instrument are downloading using *3DOM* or *CommNetEG*. The fourth is updated using the procedure described in (§ 4.4.2.1).

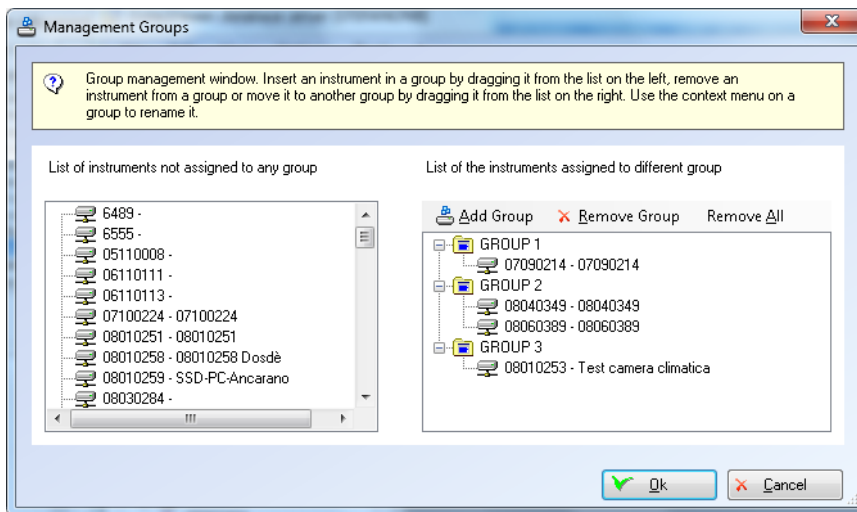
When browser orders the instruments using the description, *GidasViewer* uses the description set in the database, if that was not set, it uses the description set by *3DOM*; if that was not set it uses the *User Serial Number*.

The *User Serial Number* and the description of the instrument set in *3DOM* are updated in the database every time *3DOM* downloads data. Conversely the description set in the database by *GidasViewer* does not update the description set in *3DOM*.

It is also possible to aggregate the instruments in groups using the item *Management Groups*. The effect of the combination of instruments in groups in the Browser window is as follows:



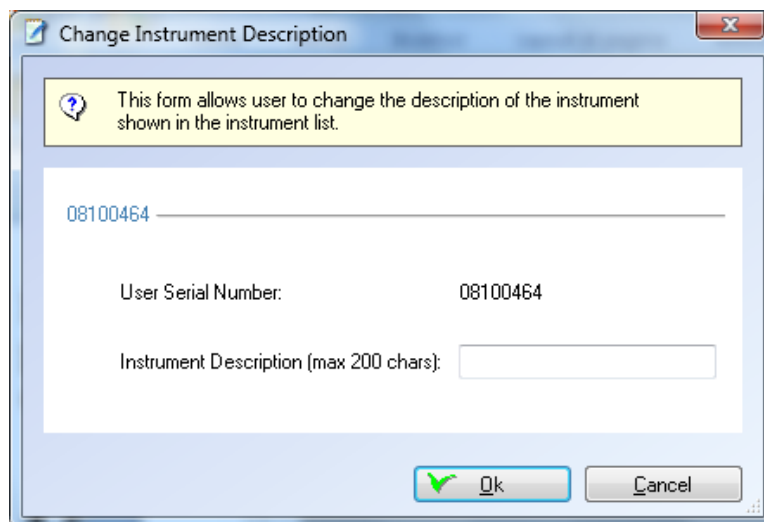
The window Management Groups allows creating new groups, rename groups, add or remove instruments from each group:



To add an instrument in a group drag it from the list on left to a group node in the list on the right; to remove an instrument from a group drag it from the list on the right to the list on the left

4.4.2.1. Change of the instrument description

In order to change the description of one instrument select the item in Browser and select contextual menu *Change Description*. This menu shows the following window:



4.4.3. Custom views

The *custom views* section includes all personalized views inputted into Gidas database by users.


Click mouse right key on one item and it'll display the contextual menu that shows the available operations.

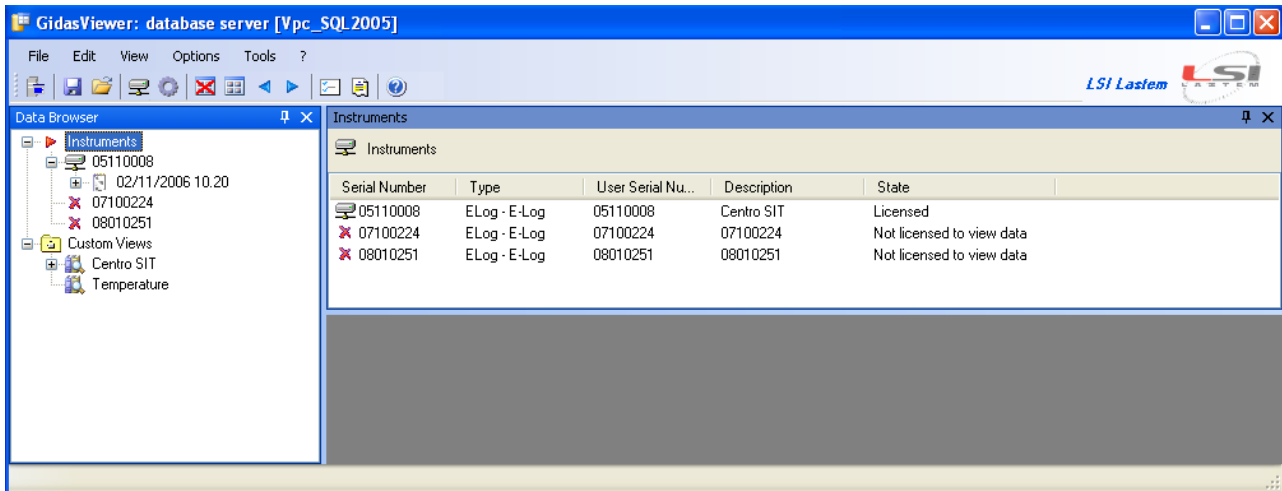
Personalized views available operations:

- *Show data*: it displays processed data included in survey (§4.6)
- *Show Wind Rose Data*: shows wind rose data included in the survey (§4.7)
- *Show Weibull Wind Rose Distribution*: shows Weibull distribution (§4.8)
- *View instantaneous data*: it starts monitor for display of instantaneous data (§4.14).
- *Remove*: it deletes selected view but **doesn't delete connected data**
- *Edit*: it starts window for view change.

4.5. User licenses

The program allows the display of instruments' data included in *Gidas* database for which there's valid license file; you can ask LSI LASTEM for license files.

In case the license file isn't available, the instrument is displayed in the Data Browser with icon  and you cannot access to its data.



Similarly if one custom view includes data that depend on one measure of not licensed instrument, you cannot access to data of view.

4.5.1. The Licenses Manager program

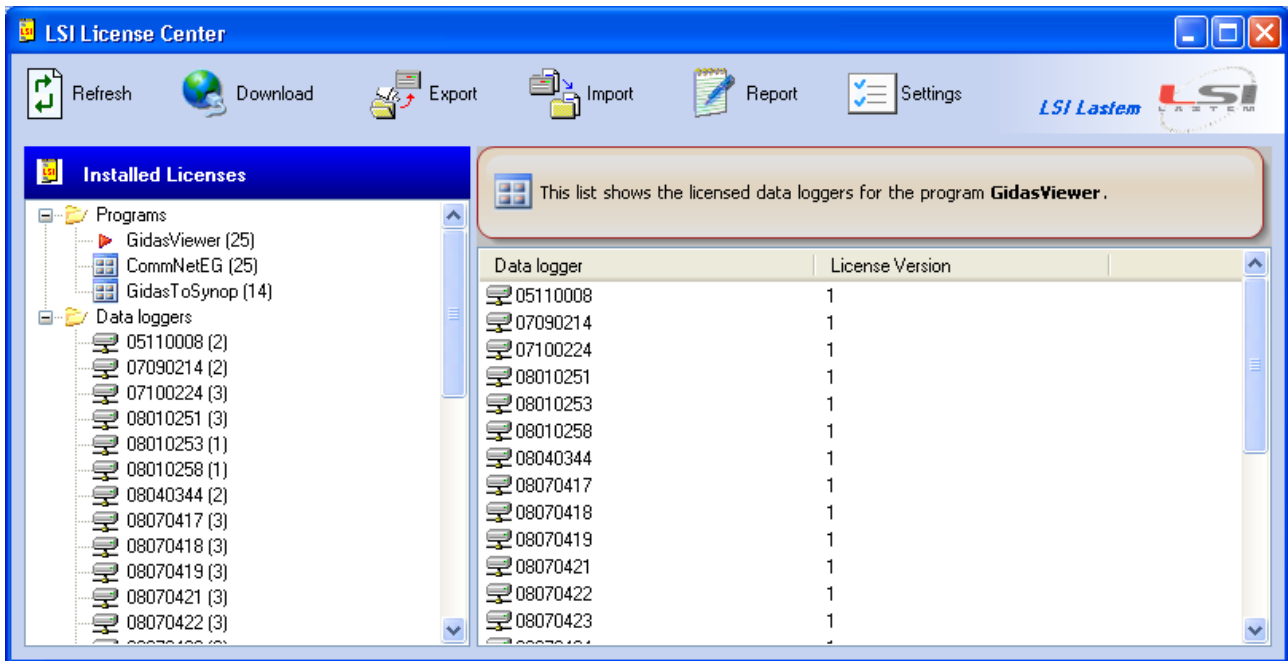
Use menu *Tool* → *Licenses Manager* to run the program *LSI License Center* which manages the LSI programs licenses installed on the local computer.

The *LSI License Center* program is one of the components of the *LSI Support Center* program which can directly be installed by the CD of the products LSI LASTEM or from the CD of the licenses files or downloading the installer file from the site FTP of the LSI LASTEM. the *LSI Support Center* also contains the component that verifies the availability of the new versions of the LSI LASTEM programs installed in the computer (§4.16).

4.5.1.1. Installation of the program from the site FTP

If the program of the management of the licenses is not installed in the local computer you can download the installation file from the LSI LASTEM FTP site. At the end of the downloading the installation will automatically starts; at the end of the installation the program will be started.

4.5.1.2. Program use

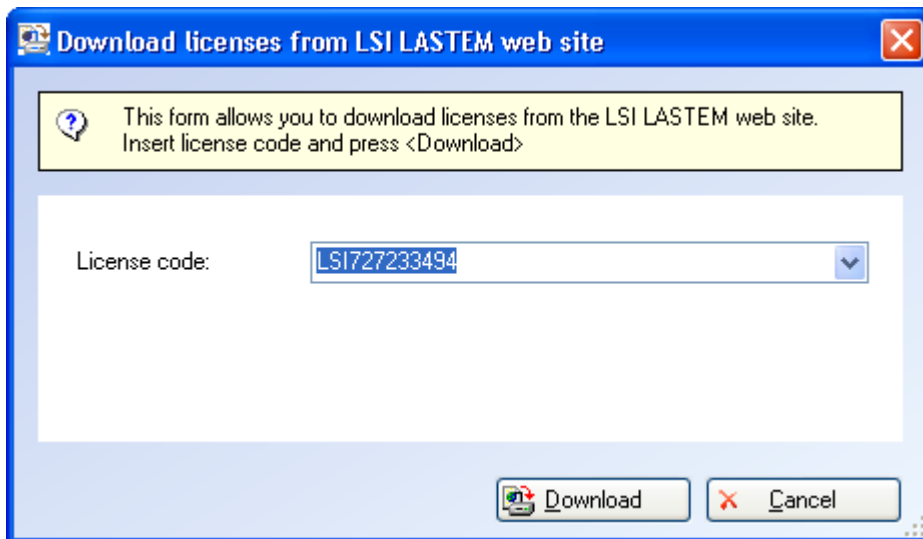


The program visualizes all the installed licenses in the computer divided for single programs or single tools. Through this program it is possible:

- to export the selected licenses in an archive file;
- to import an archive licenses file in the local computer;
- to produce a simple text file report with the list of the installed licenses in the computer;
- to directly download the licenses archives from the LSI LASTEM site;

The licenses archive is constituted by an only file zip of extension .lsilic: this is the format with which the licenses are distributed by LSI LASTEM.

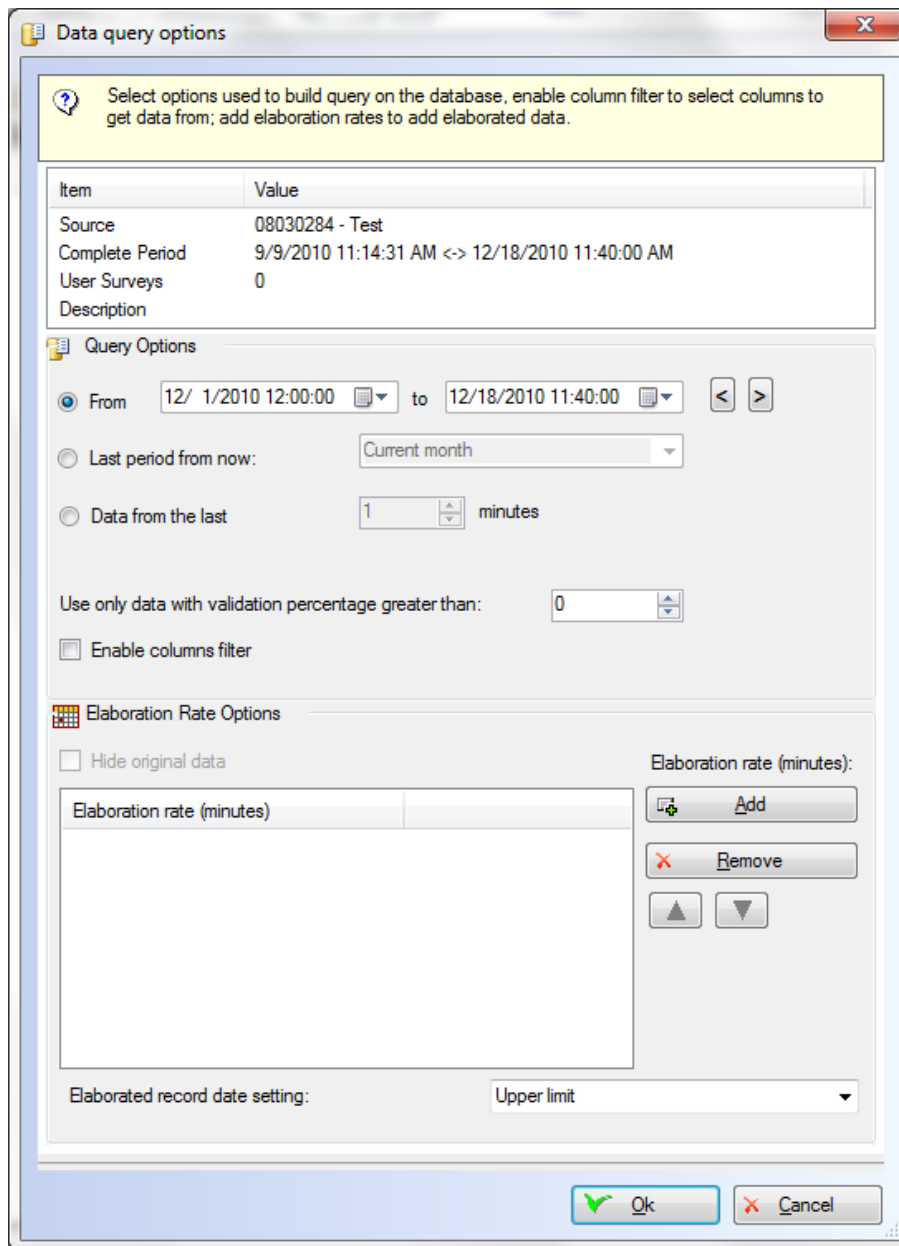
Every licenses archive can be downloaded from the LSI LASTEM site inserting the License Code supplied by LSI LASTEM with the purchase of the programs.






Through the Settings button it is possible to set the parameters of the Internet communication in the case it is present a server proxy.

4.6. Data extraction

In order to display the data of one survey or one custom view select the item in Browser and select contextual menu *Show data*. This menu shows the window for setup of data extraction options:



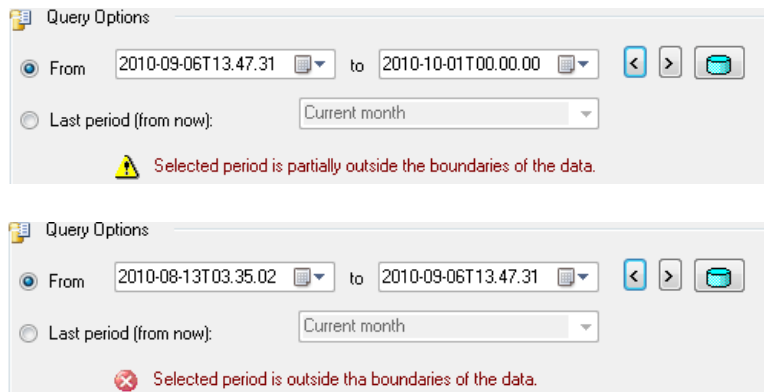
Options for data require:

- *From ... to* : select this option in order to set up a slot for data selection; use keys   to scroll selected time period one quantity backward and forward respectively, that is the difference among two dates; the button  serves to automatically set the time limit on a user-defined survey (function supported by R- Log instrument)
- *Last period from now*: select this option to extract defined period of data starting from the most recent value;
- *Data from the last n minutes*: select this option to extract last n minutes of data;

- *Use only data with validation percentage greater than:* select required validity percentage of processed datum; if you set up *0* all date are extracted, if you set up *100* only date with validity percentage 100% are extracted;
- *Enable columns filter:* selecting this option it's displayed the window that allows the selection of measures to display: at the opposite it's displayed all measures and their processings included in the survey or in the custom view.

Elaboration rate options (§4.6.2)

If the selected period are outside the limits of the data in the database the window displays a warning but you can always continue with the extraction of data:




If you select the option *Last period* the data check covers only the lower time limit.

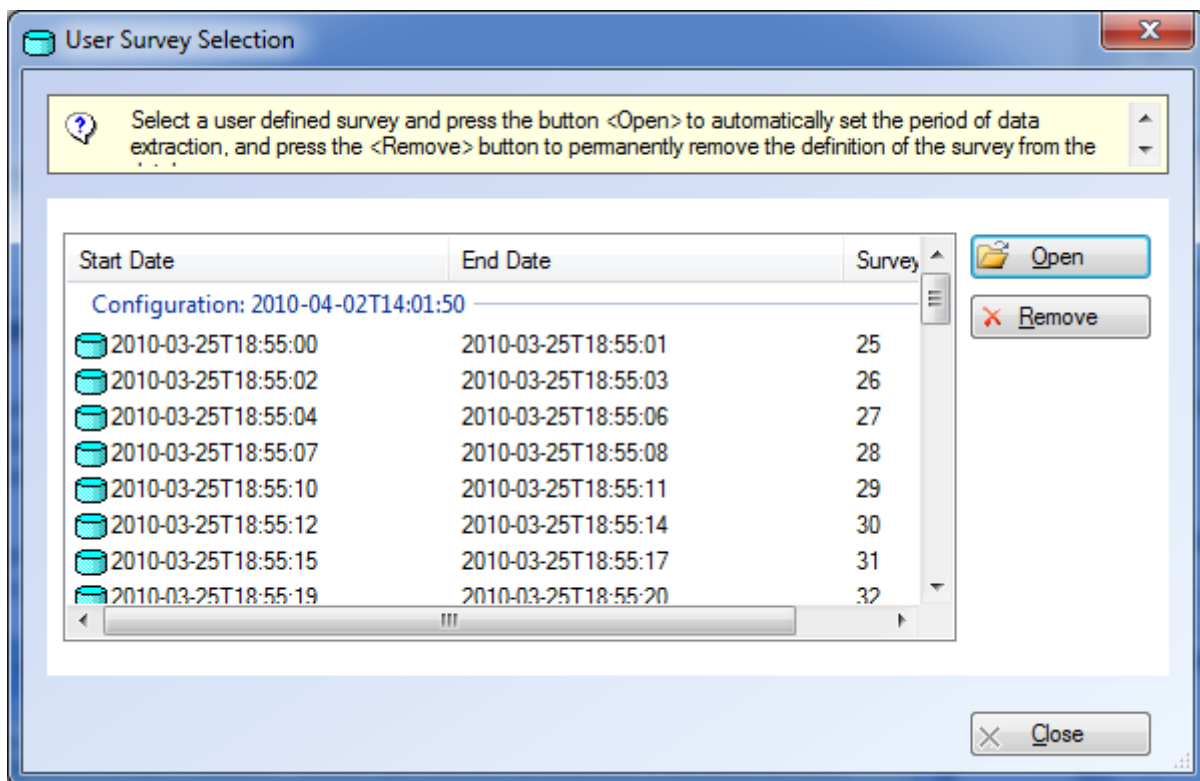
WARNING:

the period of availability of data is indicated by using the configuration date as lower limit and the date of the last elaborated data downloaded into the database. In some special cases, this information may not be updated.

4.6.1. User defined surveys

With the R-Log instrument was introduced the possibility to add a user defined survey. These surveys are stored in the database GIDAS (version 2.4.0) and are associated with the instrument configuration current when the user survey was created.

The user surveys are shown in the data extraction windows. By clicking the button  the program shows the windows with the list of the user surveys available for the selected instrument:





From this window you can open or remove a user survey: to open a user survey means to assign the temporal limits of the user survey to the temporal limits of the extraction window.

4.6.2. Data re-processing

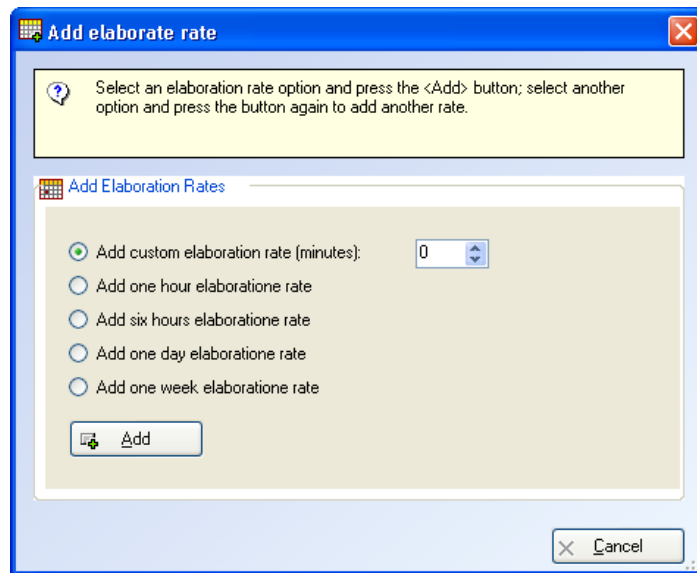
Using window for setup of data request options you can fix some re-processings about data extracted from database.

Through re-processing options you can specify one or more elaboration rates about available data.

Elaboration rate options:

- *Hide original data*: in case of re-processings, when you select this option you don't display the original data (included in database) stored by instruments and used to obtain elaborations;
- *Elaboration rate (minutes)*: this list includes the elaboration rates (minutes) that will be used for elaborated data; use keys <Add> and/or <Remove> to run the list; keys   sort increasing-wise or decreasing-wise the elaboration rates included in the list;
- *Elaborated record date setting*: this option is displayed when the data extracted from database are elaborated; selecting option *Upper limit* the datum processed during a fixed slot is assigned to date related to upper bound of elaboration slot; selecting option *Lower limit* the datum processed during a fixed slot is assigned to date related to lower bound of elaborated slot.

The <Add> button opens the window that allows you to add new elaboration rates:



4.6.2.1. List of elaborations

Table *Core.ElabTypeList* of database *Gidas* includes the list of base processings made during measure's elaboration.

Original datum	Elaboration
Inst (n.e.)	Ave
Inst	Ave
Min	Min
Ave	Ave
Max	Max
StDev	Nothing
Tot	Sum
Duration	Sum
PrevDir	AvgDirection
RisDir	VectDirection
RisVel	VectVel
StdDevDir	Nothing
CalmPerc	Ave
ValidDataPerc	Ave
PSBisect	AvgDirection
PSPrevDir	AvgDirection
PSPrevVel	Ave
PSStdDevDir	Nothing
DirFreq1	Ave
DirFreq2	Ave
DirFreq3	Ave
DirFreq4	Ave
DirFreq5	Ave
DirFreq6	Ave
DirFreq7	Ave
DirFreq8	Ave
DirFreq9	Ave
DirFreq10	Ave

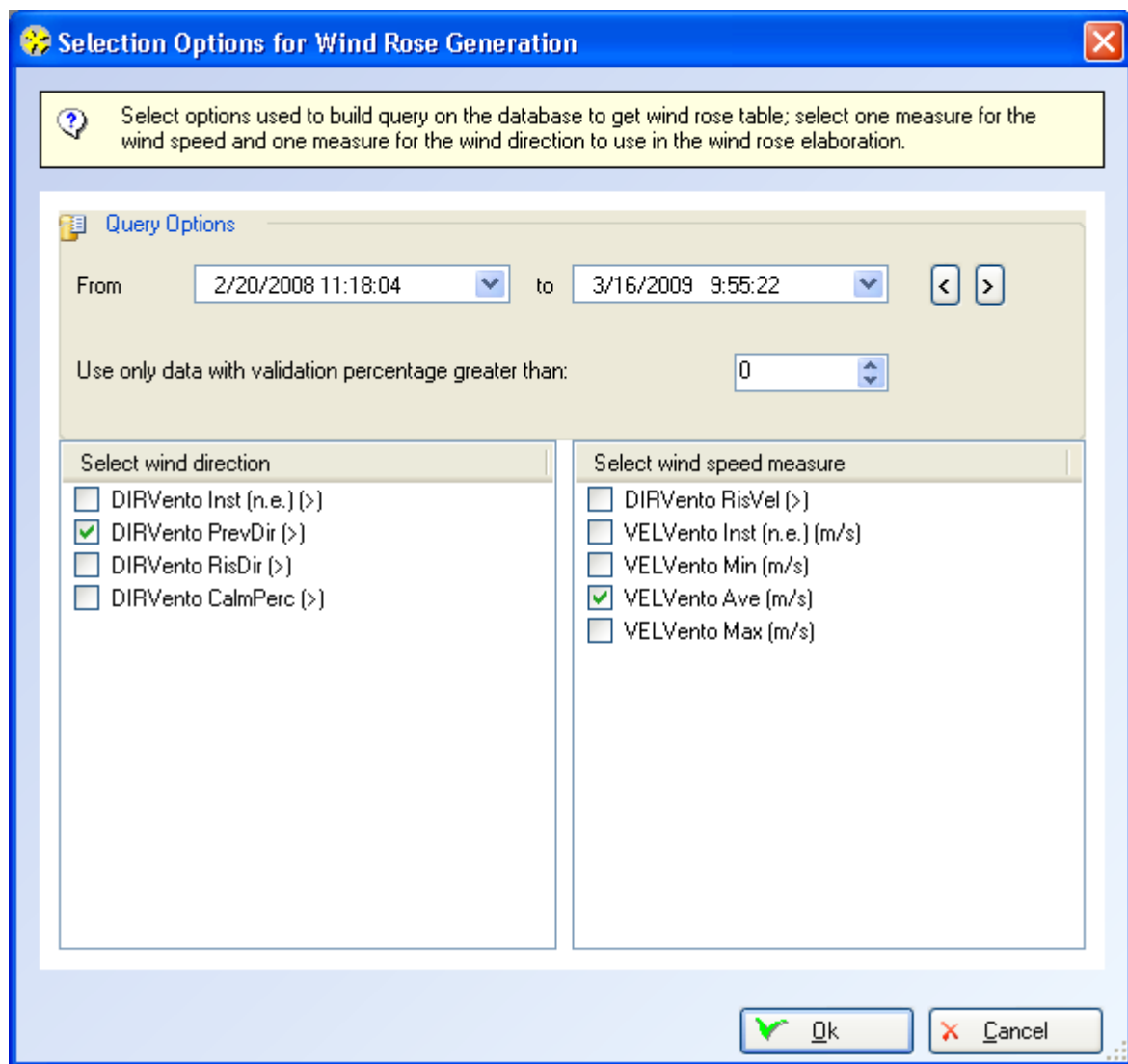
DirFreq11	Ave
DirFreq12	Ave
DirFreq13	Ave
DirFreq14	Ave
DirFreq15	Ave
DirFreq16	Ave
TimeMin	Nothing
TimeMax	Nothing

In this table the column *Original datum* represents the processing made by instrument which generated the datum; column *Elaboration* represents the processing made when datum is elaborated. In particular:

- datum *Inst (n.e.)* represents the instantaneous datum not elaborated by instrument;
- elaboration *Nothing* means that datum isn't elaborated (for example datum *StDev* standard deviation);
- elaboration *AvgDirection* is applied to wind direction data that are elaborated by geometric mean of directions without taking wind intensity into consideration.
- elaborations *VectDirection* and *VectVel* (supported by version 2.11 of Gidas database) perform a vector processing of the combined data of wind speed and wind direction.
- types *PSBisect*, *PSPrevDir*, *PSPrevVel*, *PSStdDevDir*, *DirFreqn* are supported only by Babuc ABC instruments
- types *TimeMin* and *TimeMax* are supported by Pluvi-ONE instruments and are displayed using hh:mm:ss format.

4.7. Wind rose data extraction

In order to display the wind rose data of one survey or one custom view select the item in Browser and select contextual menu *Show Wind Rose Data*. This menu shows the window for setup of wind rose data extraction options:



This window allows to select the time slot for the extraction of the data and the two measures of direction and intensity of the wind to use in the calculation.

The calculation of the roses of the winds produces a normalized table of united data for classes of speed and sectors of origin of the wind.

SECTORS	V1 (< 0,3)	V2 (0,3 - 2,3)	V3 (2,3 - 3,9)	V4 (3,9 - 6,5)	V5 (6,5 - 12,0)	V6 (> 12,0)	Totale
348,8 - 11,3	0.00	3.96	0.03	0.00	0.00	0.00	3.99
11,3 - 33,8	0.00	0.10	0.00	0.00	0.00	0.00	0.10
33,8 - 56,3	0.00	0.03	0.00	0.00	0.00	0.00	0.03
56,3 - 78,8	0.00	0.17	0.00	0.00	0.00	0.00	0.17
78,8 - 101,3	0.00	0.41	0.00	0.00	0.00	0.00	0.41
101,3 - 123,8	0.00	39.78	32.23	2.49	0.00	0.00	74.50
123,8 - 146,3	0.00	61.77	47.19	4.44	0.00	0.00	113.39
146,3 - 168,8	0.00	2.73	0.00	0.00	0.00	0.00	2.73
168,8 - 191,3	0.00	1.71	0.03	0.00	0.00	0.00	1.74
191,3 - 213,8	0.00	2.15	0.00	0.00	0.00	0.00	2.15
213,8 - 236,3	0.00	4.37	0.07	0.00	0.00	0.00	4.44
236,3 - 258,8	0.00	13.49	2.56	0.14	0.00	0.00	16.18
258,8 - 281,3	0.00	42.68	58.69	53.16	4.17	0.00	158.70
281,3 - 303,8	0.00	95.60	102.50	169.01	62.52	0.00	429.63
303,8 - 326,3	0.00	97.65	11.06	12.63	4.78	0.00	126.13
326,3 - 348,8	0.00	30.52	0.31	0.14	0.00	0.00	30.97
Variabili	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Calme	34.72	0.00	0.00	0.00	0.00	0.00	34.72
Totale	34.72	397.13	254.68	242.01	71.46	0.00	1000.00
*							

4.7.1. Identification of the measures of direction and intensity of the wind

Measures of wind direction are identified by:

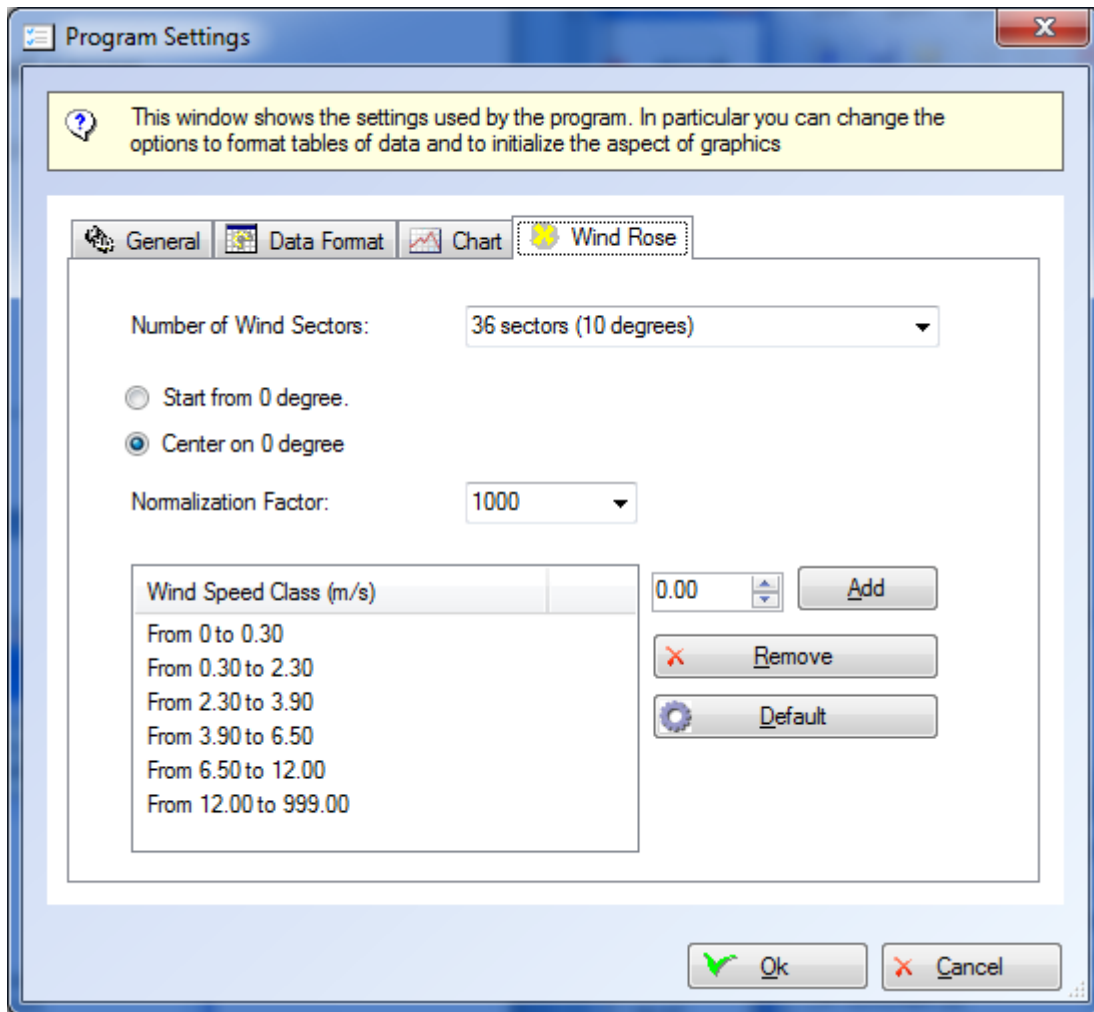
- *Measure type*: Direction

Measures of wind speed are identified by:

- *measure type*: Speed
- *measure type*: Direction + *elaboration type*: RisVel o PsPrevVel

4.7.2. Options for the calculation of the wind roses

Through menu *Options* → *Program Settings* you can set up the default options which determine the settings used to calculation wind roses:



The *Wind Rose Settings* tab contains the options used for the calculation of the roses of the winds

- *Number of wind sectors*: number of the sectors in which the angle of 360° degrees is divided; they are available different values (1,4,8,12,16,24,36 sectors)
- *Sectors starting point*: they are available two choices *Start from 0 degree* and *Center on 0 degree*. If for instance the number of wind sectors selected is 36 sectors of 10 degrees, choosing *Start from 0 degree* the sectors will be: (1, 10), (10, 20) ...; choosing *Center on 0 degree* the sectors will be (-5, 5), (5, 15)
- *Normalization factor*: factor used for normalizing the data of the resultant wind rose table
- *Wind speed class list*: it allows to select the classes of speed to use in the calculation; the button *Add* it add a new class of speed with the superior value equal to that contained in the field of insertion; the button *Remove* it removes the element selected by the list; the button *Default* reset the default values.

4.8. Weibull distribution calculation

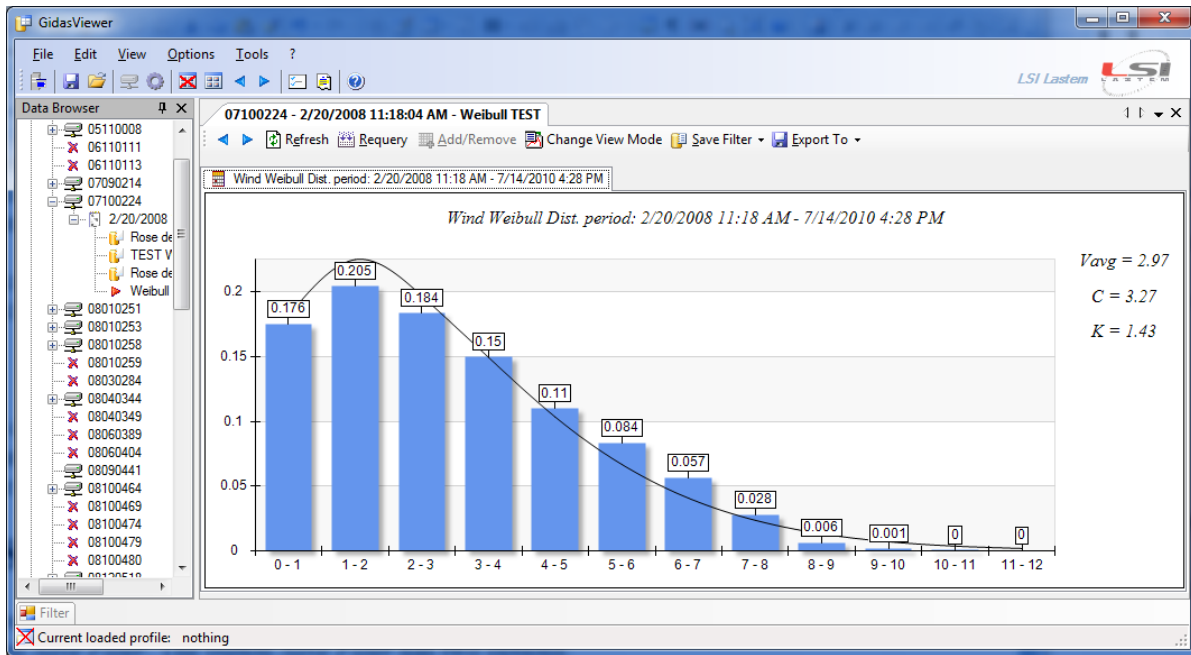
Weibull distribution is used to simulate the statistical distribution of probability of the wind, especially in wind energy applications:

$$f_i = \frac{k}{c} \left(\frac{v_i}{c}\right)^{k-1} e^{-\left(\frac{v_i}{c}\right)^k}$$

where f_i is the probability of observing wind velocity v_i , k is the shape parameter and c is the scale parameter; k and c are the two characteristic parameters of the distribution (more information on the meaning and use of the *Weibull* distribution can be found in specialized books on the subject).

In order to display the *Weibull* distribution of wind data of one survey or one custom view select the item in *Browser* and select contextual menu *Show Weibull Wind Rose Distribution*. This menu shows the window for setup of *Weibull* distribution data extraction options similar to that for the calculation of the wind roses (§4.7) to select the time frame for the extraction of data and two channels of direction and wind speed to be used in the calculation (§ 4.7.1).

The calculation of the *Weibull* distribution shows the distribution of wind data, aggregated to class velocity normalized to 1, and the *Weibull* curve with the estimated values of two parameters k and c :

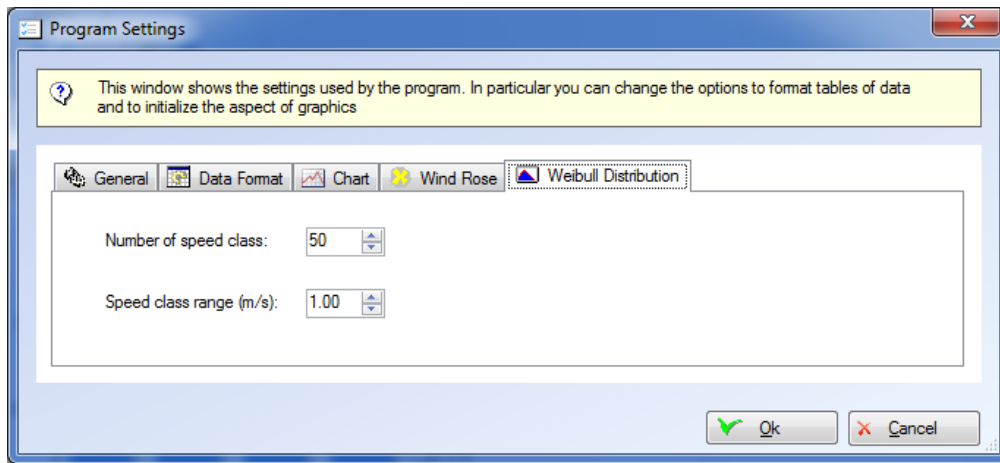


The calculation of the parameter k is performed iteratively using the method of minimizing the standard deviation between the calculated and measured values, the shape parameter c is calculated from the value of k and the value of the average velocity of the wind distribution using the formula:

$$c = \frac{v_{avg}}{\Gamma\left(1 + \frac{1}{k}\right)}$$

4.8.1. Options for the calculation of the Weibull distribution

Through menu *Options* → *Program Settings* you can set up the default options which determine the settings used to calculation *Weibull* distribution:



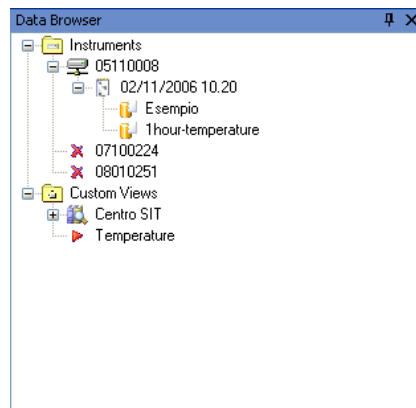
The *Weibull Distribution* tab contains the options used for the calculation. of the roses of the winds contiene le impostazioni utilizzate per il calcolo della distribuzione del vento utilizzata nel calcolo della distribuzione di *Weibull*. The calculation is done user determined number of speed classes with fixed size expressed in meters per second.

4.9. Filters

Through data display window (§4.10) you can save the data extraction options by means of button *Save Filter*. The button *Save Filter* has two options:

- *Save*
- *Save as*

The saved filters are displayed in *Data Browser* under data source item *survey* or *custom view*.



Selecting one Filter in Browser, the data will be displayed directly, without using the window for setting data extraction options.

Through data display window you can modify the settings for data extraction using key *Requery*; you can also save the filter's modifications or save then as a new filter.

Filters available operations:

- *Show data*: it displays the elaborated data included in the survey;
- *Remove*: it deletes the selected view **without deleting connected data**.

During first download of survey's data from Babuc ABC instrument, the program sets up automatically one set of filters for each processing base included in several survey's channels, in order to group the quantities which have same processing rate.

4.10. Window of data display

In order to display the data of one survey or one personalized view select the item in the Browser and select contextual menu *Show Data* or *Show Wind Rose Data*.

After setting up the options for data extraction (§4.6 or 4.7 or 4.8) the data are loaded by database and displayed in data display window.

The screenshot shows the GidasViewer application window titled "GidasViewer: database server [STEFANONB]". The window has a menu bar (File, Edit, View, Options, Tools, ?) and a toolbar with icons for Refresh, Query, Add/Remove, Change View Mode, Save Filter, and Export To. The main area displays a table of data under the heading "Original Data". The table has 7 columns: Date Time, Temperatura Min (°C), Temperatura Ave (°C), Temperatura Max (°C), UmiditaRel Min (%), UmiditaRel Ave (%), and UmiditaRel Max (%). The data rows show temperature and humidity values for various times on 2010-09-23. At the bottom, there is a "Filter" section and a status bar indicating "Current loaded profile: nothing".

Date Time	Temperatura Min (°C)	Temperatura Ave (°C)	Temperatura Max (°C)	UmiditaRel Min (%)	UmiditaRel Ave (%)	UmiditaRel Max (%)
2010-09-23T09:00:00	25.512	25.716	25.897	42.364	44.824	46.371
2010-09-23T09:30:00	25.702	26.027	26.336	41.344	41.959	42.837
2010-09-23T10:00:00	26.273	26.442	26.527	40.866	41.414	42.232
2010-09-23T10:30:00	25.892	26.486	26.878	38.318	38.932	42.047
2010-09-23T11:00:00	26.785	26.974	27.166	38.508	39.083	39.587
2010-09-23T11:30:00	27.161	27.248	27.322	38.123	38.296	38.508
2010-09-23T12:00:00	27.259	27.468	27.605	37.264	37.646	38.220
2010-09-23T12:30:00	27.576	27.635	27.703	35.834	36.541	37.171
2010-09-23T13:00:00	27.669	27.750	27.801	34.999	35.405	35.829
2010-09-23T13:30:00	27.698	27.781	27.864	35.004	35.102	35.195
2010-09-23T14:00:00	27.766	27.833	27.893	34.809	34.911	35.097
2010-09-23T14:30:00	27.762	27.792	27.864	34.999	35.110	35.258
2010-09-23T15:00:00	27.449	27.677	27.801	34.999	35.317	35.927
2010-09-23T15:30:00	27.322	27.388	27.513	35.258	35.856	36.117
2010-09-23T16:00:00	27.571	27.648	27.766	35.004	35.203	35.448

This window shows all tables of database required data: original data and re-processed data. You can reach available options by means of keys under window headline; they're the following:

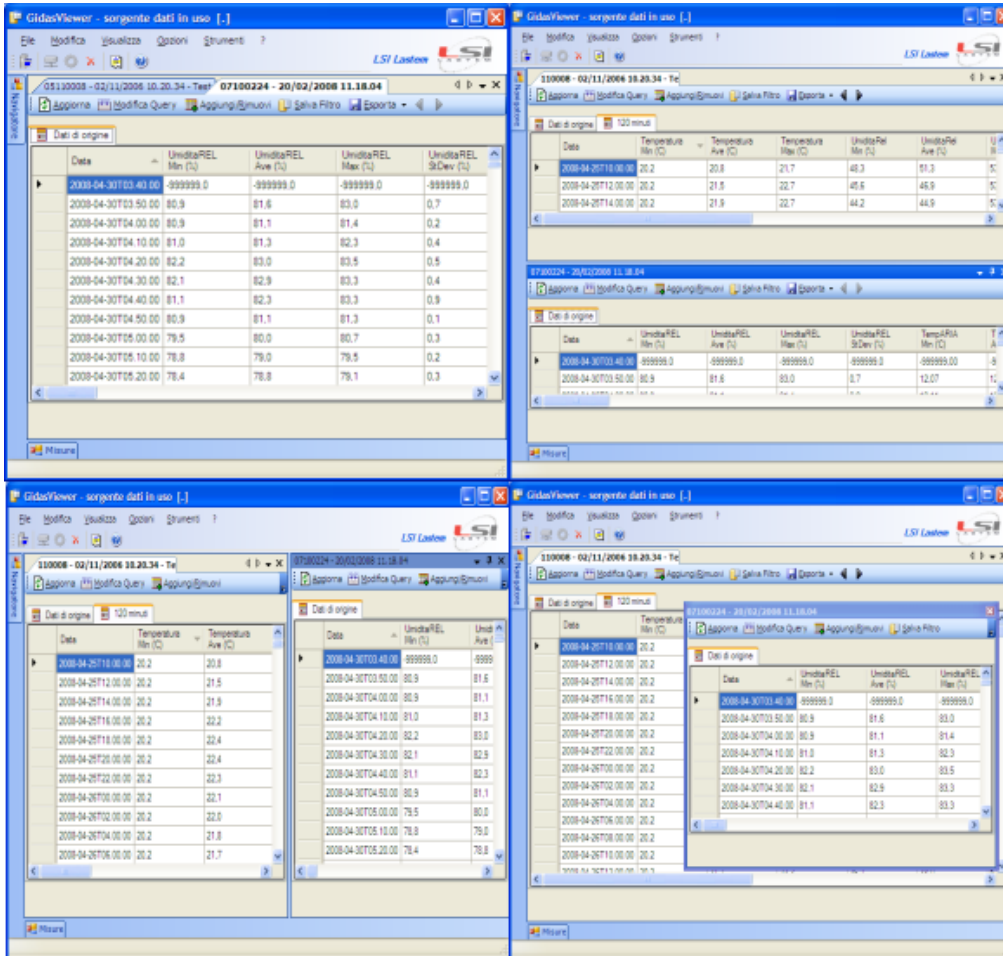
- : it shows information about the data source;
- : it scrolls data forward or backward in time provided the data selection is based on a time period;
- *Refresh*: it updates the data re-loading them from database;
- *Query*: it modifies the options for data extraction and re-loads them from database;
- *Add/Remove*: it allows to add or remove data tables modifying the list of elaborating bases; this option is not available if data are of wind roses types;
- *Change View*: it changes view of the data switching between *Data Table*, *Chart* and *Statistics*.
- *Save Filter*: it saves the options for data extraction (§4.9);
- *Export to*: it exports the data from current selected table (the above example shows the table *Original Data*);

Each table has got also its contextual menu as follow:


- *Show chart*: it passes to graphic display of data
- *Copy*: it copies selected data of current table in clipboard of Windows;
- *Export to*: it exports the table's data;
- *Remove*: it deletes the table. Select key *Add/Remove* to restore it.

Use key **X** to close current window; it's on the left side of headline bar or menu. Use menu *View* → *Close all data viewers* to close all used data windows.

You can drag data windows and anchor them in different positions.



4.10.1. Automatic positioning of data display windows

Choose *View* → *Tile all windows data* (or the button  on the toolbar button) the program automatically arranges windows allowing the simultaneous display of all data display windows.

The screenshot displays the GidasViewer application window with three data tables. Each table has a menu bar with 'Original Data', '60 minutes', and '120 minutes' options. The tables show temperature data for different dates and times.

Table 1: 05110008 - 11/2/2006 10:20:34 AM - Esempio

Date Time	Temperatura Min (C)	Temperatura StDev (C)
2008-12-02T00:00:00	15.0	0.0
2008-12-02T00:30:00	14.9	0.0
2008-12-02T01:00:00	14.8	0.0
2008-12-02T01:30:00	14.7	0.0

Table 2: 05110008 - 11/2/2006 10:20:34 AM - 1hour-ter

Date Time	Temperatura Ave (C)	Temperatura StDev (C)
2010-02-20T20:30:00	16.6	0.0
2010-02-20T21:00:00	16.4	0.0
2010-02-20T21:30:00	16.4	0.0
2010-02-20T22:00:00	16.3	0.0
2010-02-20T22:30:00	16.3	0.0
2010-02-20T23:00:00	16.1	0.0
2010-02-20T23:30:00	16.1	0.0
2010-02-21T00:00:00	16.0	0.0
2010-02-21T00:30:00	15.9	0.0
2010-02-21T01:00:00	15.9	0.0
2010-02-21T01:30:00	15.8	0.0
2010-02-21T02:00:00	15.8	0.0
2010-02-21T02:30:00	15.7	0.0
2010-02-21T03:00:00	15.7	0.0

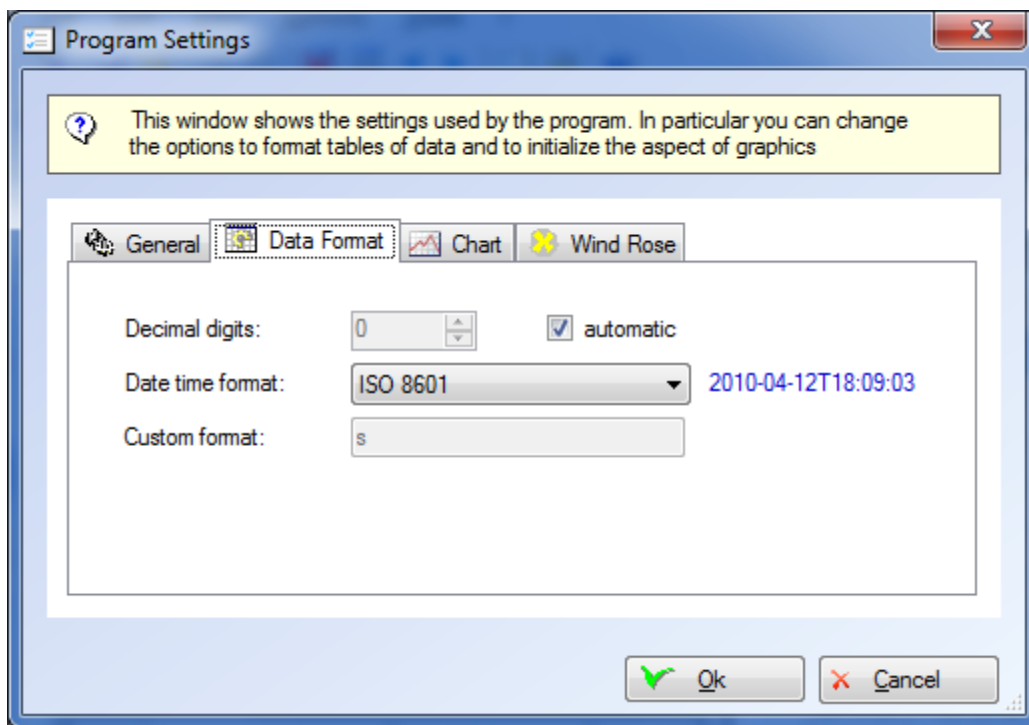
Table 3: 05110008 - 11/2/2006 10:20:34 AM - Nuovo f

Date Time	Temperatura Min (C)	Temperatura Ave (C)
2010-03-03T01:30:00	16.6	16.7
2010-03-03T02:00:00	16.6	16.6
2010-03-03T02:30:00	16.5	16.5
2010-03-03T03:00:00	16.4	16.5

At the bottom of the window, there is a status bar that reads: Current loaded profile: nothing

4.10.2. Data formatting

You can format the data displayed in the window using menu *Options* → *Program Settings* which starts the program settings window.



Through the *Data Format* tab you can specify the decimal digits of floating point data and the date format. These are default formats:

- *Local*: it uses local setups;
- *ISO 8601*: it uses ISO 8601 format (*yyyy-mm-ddT hh:mm:ss*);
- *Year/Month/Day*;
- *Month/Day/Year*;
- *Day/Month/Year*;
- *Custom*: personalized format allows to personalize the format of date and time using following symbols:
 - *y*: year (use *yyyy* to represent the year, four numbers);
 - *M*: month (use *MM* to represent the month, two numbers);
 - *d*: day (use *dd* to represent the day, two numbers);
 - *H*: hour (use *HH* to represent the hour, two numbers);
 - *m*: minute (use *mm* to represent the minutes, two numbers);
 - *s*: second (use *ss* to represent the seconds, two numbers).

To represent time (hour, minutes, seconds) it always uses standard separating symbol of computer, except for ISO 8601 format that uses symbol ‘.’.

4.10.3. Data export

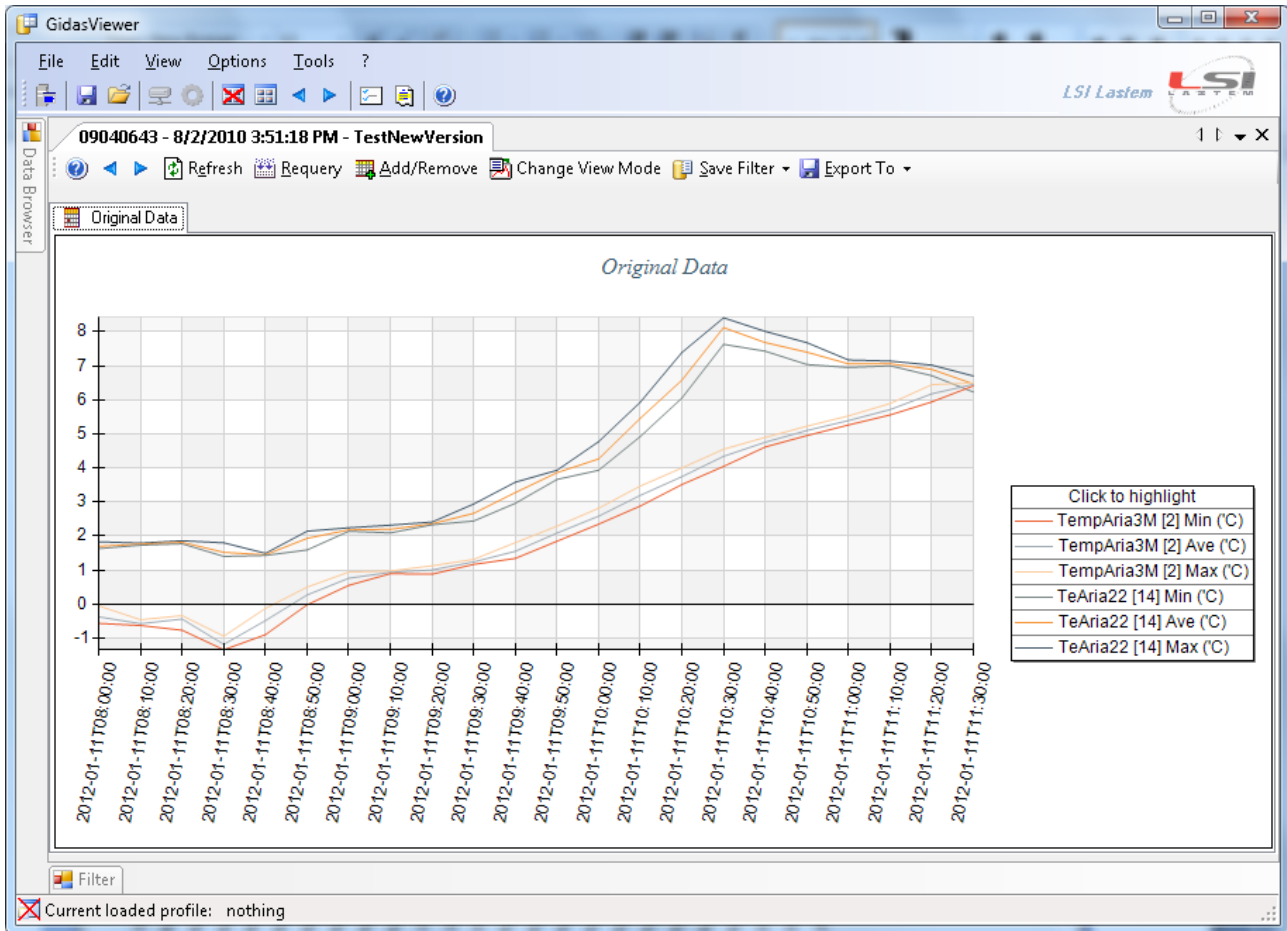
You can export the data of current table on text file using key *Export to*.

It’s possible to use two different formats:

- *Text File*: it exports only data of current table on text file; Select menu *Options* → *Export on text file* to set up the data formatting options
- *Excel spreadsheet xml*: it exports the data of all tables into file compatible with XML Worksheet format of Excel. This file format is supported by releases of Excel XP, 2003 and higher and by OpenOffice from release 2.4

4.10.4. Display of data using charts

Select contextual menu *Show chart* or key *Change View Mode* to pass from data display through tables to graphic display:



Contextual menu about chart includes following options:

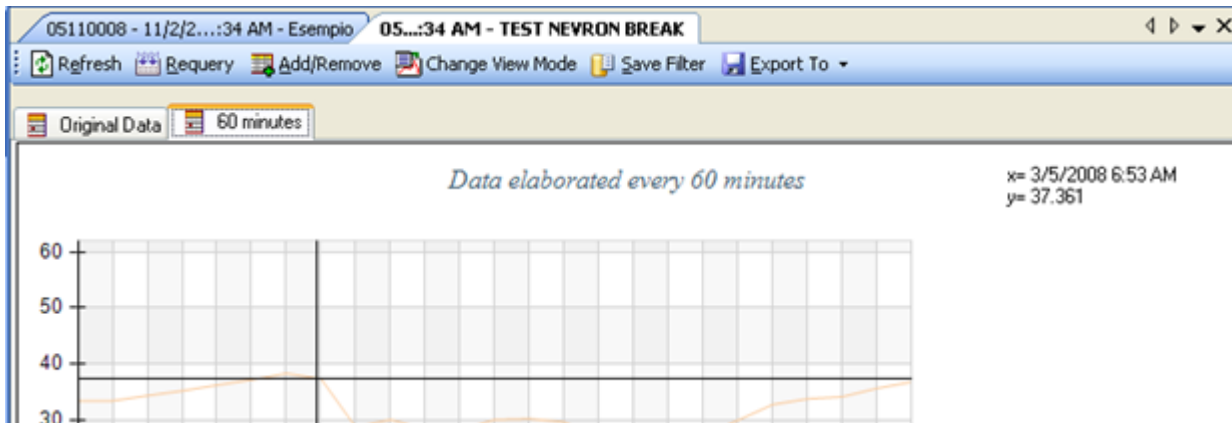
- *Show Table*: it returns to display of data through table;
- *Show Legend*: it shows/hides the chart key;
- *Show Cursor Values*: it shows/hides the display of mouse's slider coordinates;
- *Show Statistics*: it shows/hides the statistics form (§ 4.10.6)
- *Filter*: it selects the series of data to display;
- *Limits*: it sets a series of values used to display horizontal lines on the chart;
- *Reset*: it resets all settings to its default values;
- *All values*: it shows all selected values;
- *One hour*: it shows the values grouped in one hour periods;
- *One day*: it shows the values grouped in one day periods;
- *One week*: it shows the values grouped in one week periods;
- *One month*: it shows the values grouped in one month periods;
- *Save as*: it allows to save the chart as image selecting format from Windows Bitmap, JPEG, PNG, GIF
- *Copy*: it copies the chart in the clipboard (inner format is JPEG);
- *Print*: it starts the system window for choice of printer and printing of the chart;
- *Print Preview*: it starts the chart printing preview window

When a chart is created the first time the program automatically selects the best visualization mode disabling the menus of selection not suited for the period of the drawn out data.

Use general menu of *File* program to set up page's format and default printer.

When data aren't displayed in *All Values* mode, you can scroll them using scrolling bar placed under the chart.


If you select option *Show Cursor Values*, one slider shows the position of mouse; on top right you can see the time coordinates and value of mouse position.

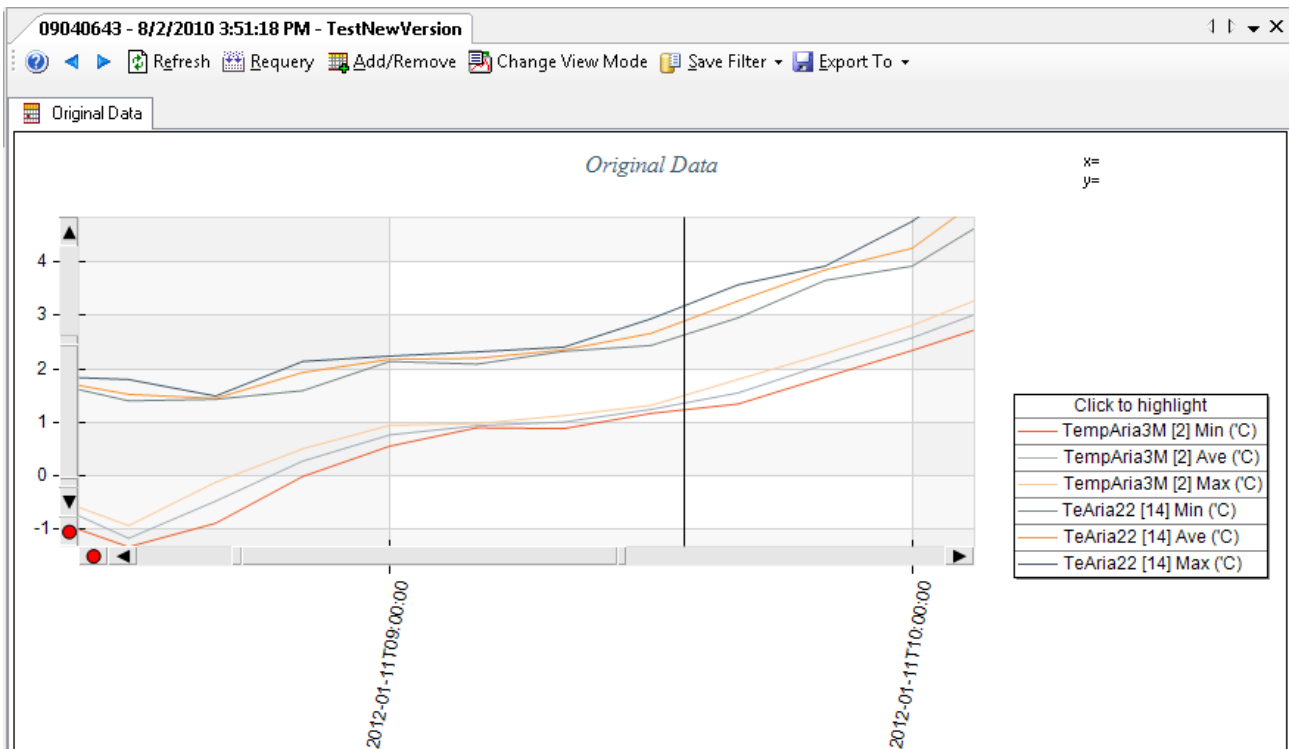


4.10.4.1. Zoom Function

Both axis of chart have got zoom function. Zoom can be activated in the following way:

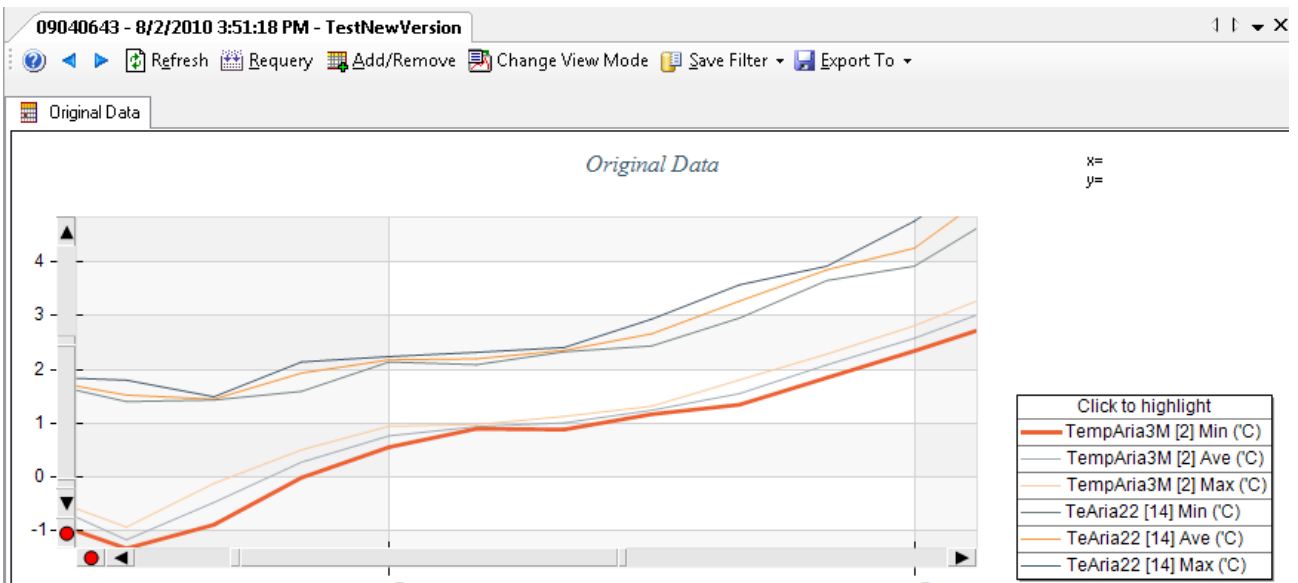
- Click mouse's left key on top left corner of are you want enlarge;
- Drag mouse, pressing left key, as far as bottom right corner of are you want enlarge (selected area will be highlighted);
- release mouse's left key.

After zoom the scrolling bars will appear on both axis; key  is used to go up one level of zoom scale.



4.10.4.2. Highlight the data series

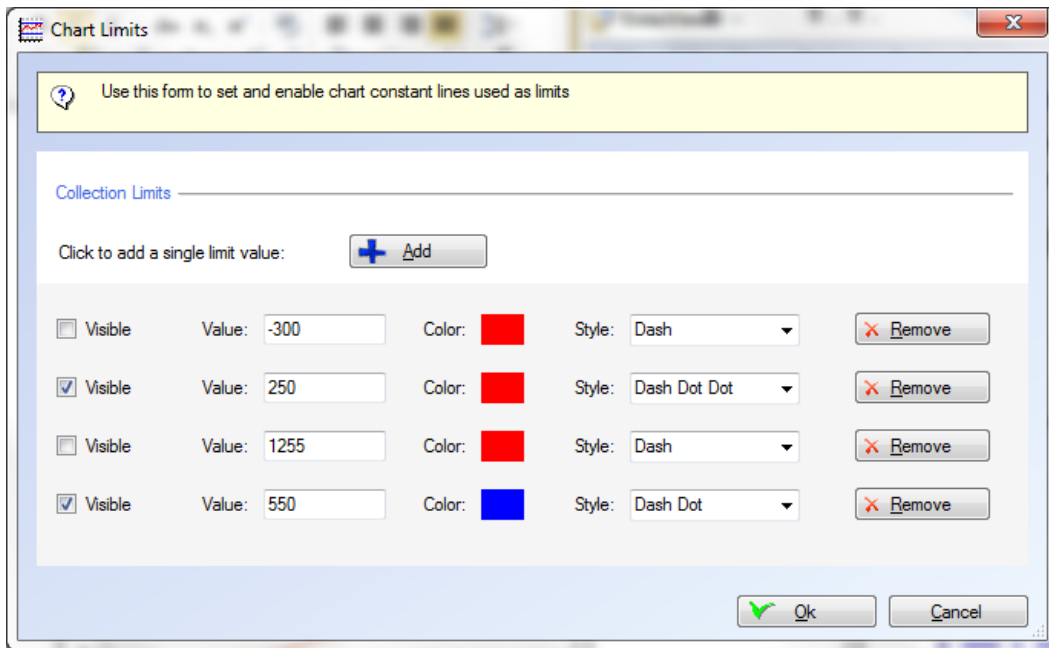
Selecting an item on the legend you can highlight the corresponding line on the graph, this function is very useful when there are many series:



The series highlighted is drawn with a double thickness compared to others on the graph,

4.10.4.3. Set horizontal reference values

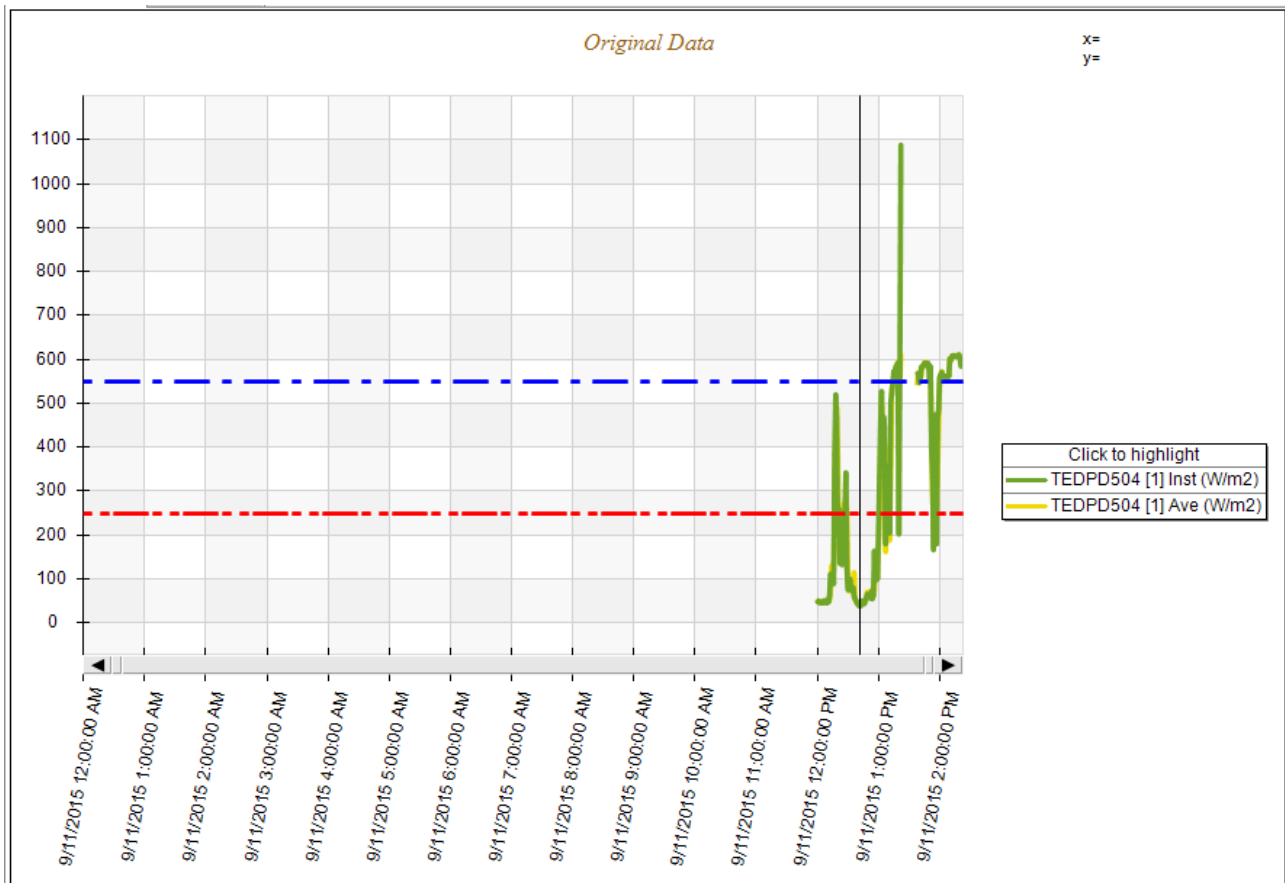
Through menu *Options* → *Limits* you can set a series of values used to display horizontal lines on the chart:



In this form you can set:

- the visibility of the limit;
- the value for the limit
- the color of the line used to display the limit
- the style of the line

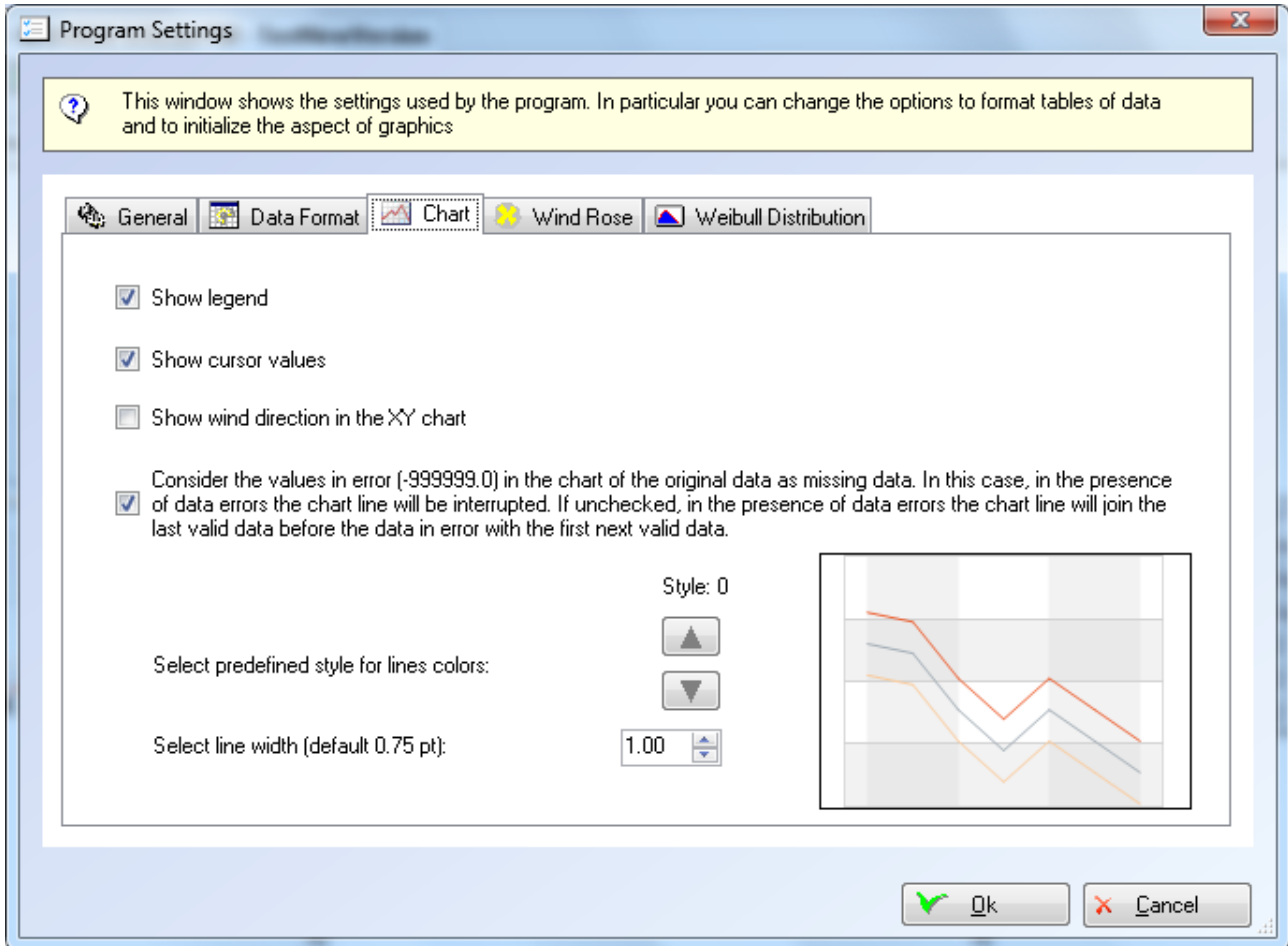
All the visible limits will be displayed on the chart:



You can save the limits selected along with options to extract data using the save function of the filter data extraction (§ 4.9)

4.10.4.4. Chart Settings

Through menu *Options* → *Program Settings* you can set up the default options which determine the first look of chart:



The tab *Chart* shows chart settings.

The option *Show wind direction in the line chart...* selects whether to visualize the data of direction of the winds in the chart axes where the scale of the axle y goes from 0 to 360, firm the possibility staying to extract the data of wind as roses of the winds.

The option *Consider the values in error ...* determines the way in which the chart manages the values in error (§ 4.10.4.5).

In this window you can also change the line width and the styles (and colors) of the chart series choosing among eight predefined styles.

The tab *Wind Roses* shows wind roses settings.

4.10.4.5. Management of error and missing data

It is important to distinguish the case of the original data recorded by the instrument than the reprocessed data. In this example, the data measured by the instrument are in error from 10.50 to 13.10:

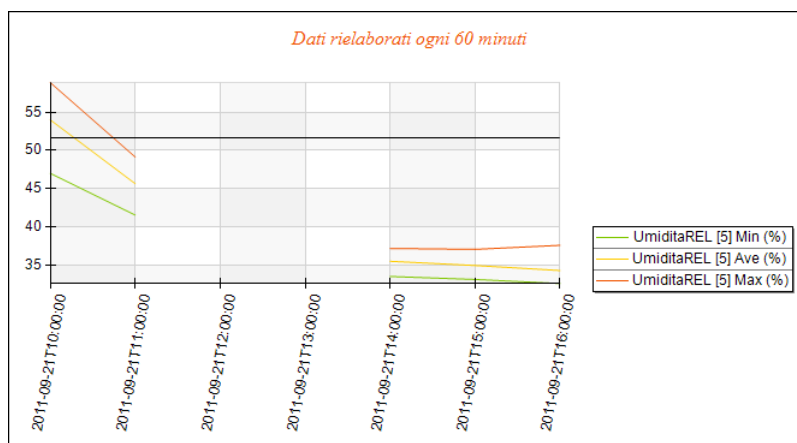
Data	UmiditaREL [5] Min (%)	UmiditaREL [5] Ave (%)	UmiditaREL [5] Max (%)
2011-09-21T09:00:00	54,731	56,334	58,083
2011-09-21T09:10:00	55,679	56,911	57,985
2011-09-21T09:20:00	55,004	56,553	57,682
2011-09-21T09:30:00	52,483	55,196	58,880
2011-09-21T09:40:00	50,914	53,339	55,068
2011-09-21T09:50:00	49,869	52,078	54,882
2011-09-21T10:00:00	47,010	49,854	51,530
2011-09-21T10:10:00	46,209	47,514	49,136
2011-09-21T10:20:00	44,078	45,550	47,689
2011-09-21T10:30:00	43,863	45,650	47,587
2011-09-21T10:40:00	41,562	43,900	46,053
2011-09-21T10:50:00	-99999,000	-99999,000	-99999,000
2011-09-21T11:00:00	-99999,000	-99999,000	-99999,000
2011-09-21T11:10:00	-99999,000	-99999,000	-99999,000
2011-09-21T11:20:00	-99999,000	-99999,000	-99999,000
2011-09-21T11:30:00	-99999,000	-99999,000	-99999,000
2011-09-21T11:40:00	-99999,000	-99999,000	-99999,000
2011-09-21T11:50:00	-99999,000	-99999,000	-99999,000
2011-09-21T12:00:00	-99999,000	-99999,000	-99999,000
2011-09-21T12:10:00	-99999,000	-99999,000	-99999,000
2011-09-21T12:20:00	-99999,000	-99999,000	-99999,000
2011-09-21T12:30:00	-99999,000	-99999,000	-99999,000
2011-09-21T12:40:00	-99999,000	-99999,000	-99999,000
2011-09-21T12:50:00	-99999,000	-99999,000	-99999,000
2011-09-21T13:00:00	-99999,000	-99999,000	-99999,000
2011-09-21T13:10:00	-99999,000	-99999,000	-99999,000
2011-09-21T13:20:00	35,889	36,071	36,436
2011-09-21T13:30:00	34,843	35,776	37,208

Reprocessing the data on an hourly basis we obtain the following table:

Data	UmiditaREL [5] Min (%)	UmiditaREL [5] Ave (%)	UmiditaREL [5] Max (%)
2011-09-21T10:00:00	47,010	53,989	58,850
2011-09-21T11:00:00	41,562	45,653	49,136
2011-09-21T12:00:00			
2011-09-21T13:00:00			
2011-09-21T14:00:00	33,553	35,531	37,208
2011-09-21T15:00:00	33,152	34,983	37,086
2011-09-21T16:00:00	32,630	34,326	37,614

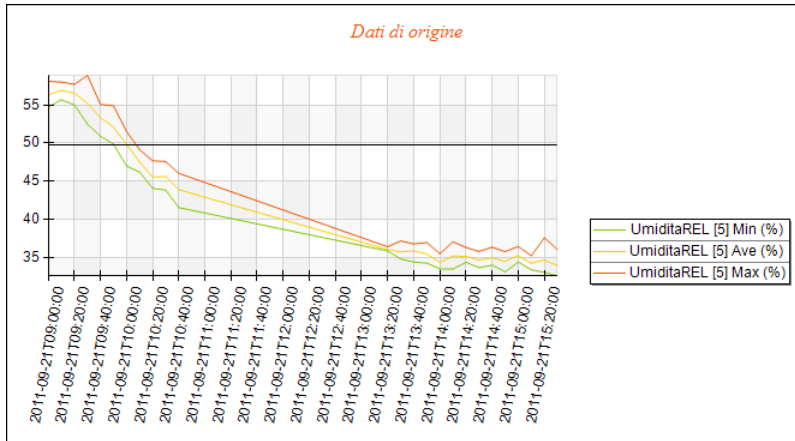
Note that where the original data are on error the elaborated data are empty (there are no data to perform the processing).

The chart of the hourly data stops the lines where the original data are missing:



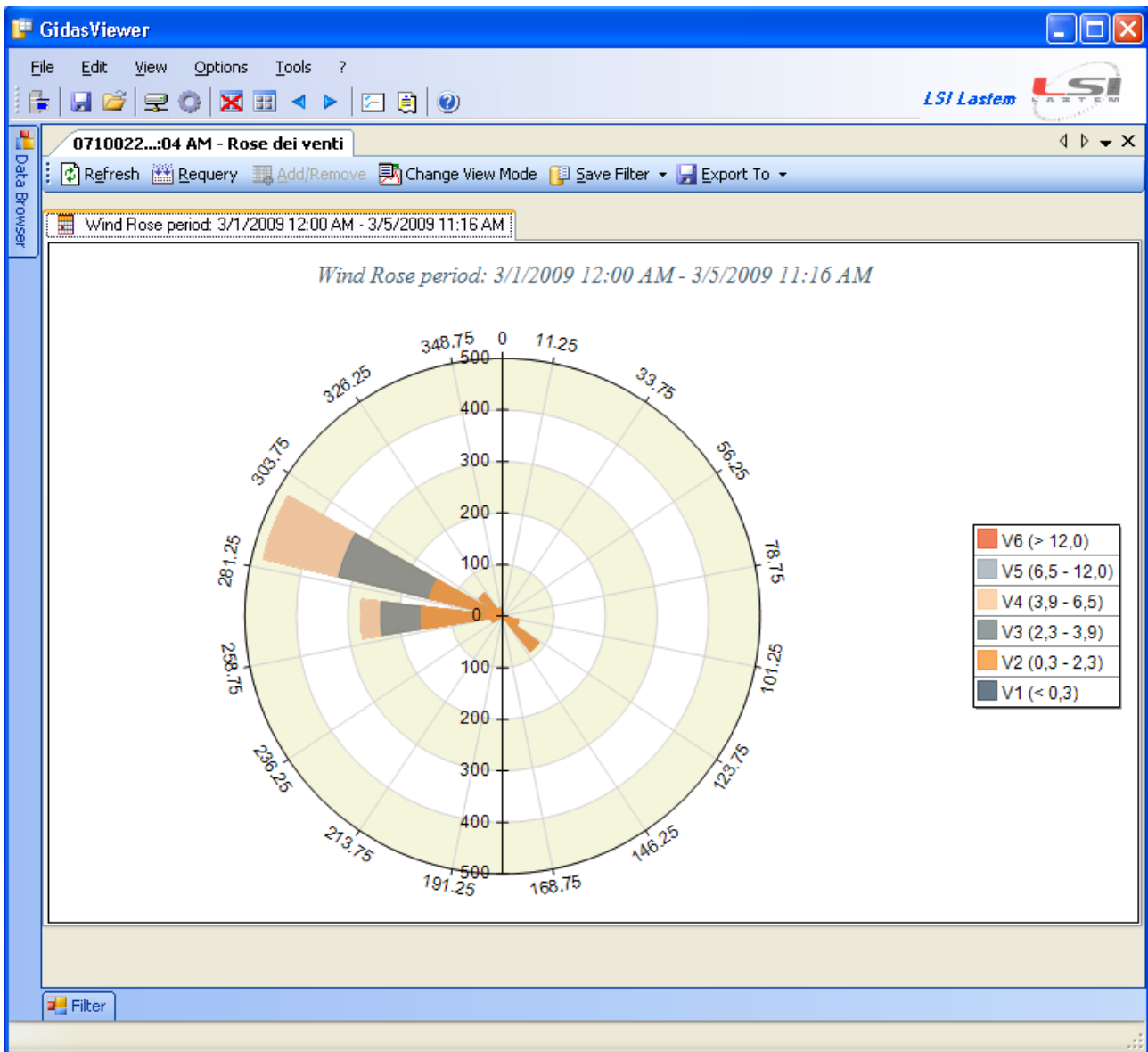
The chart of the original data can behave differently depending on the parameter *Consider the values in error ...* configurable in the Chart tab of the Program Settings form (menu *Options* → *Program Settings*).

With this option selected, the chart also shows the original data line breaks at the data in error; if the option is not selected the chart joins the last valid data before the data into error with the first following valid data:



4.10.5. Display of wind rose data using charts

Select contextual menu *Show chart* or key *Change View Mode* when data are extracted as wind roses pass from data display through tables to graphic display:



Contextual menu about chart includes following options:

- *Show Table*: it returns to display of data through table;
- *Show Legend*: it shows/hides the chart key;
- *Save as*: it allows to save the chart as image selecting format from Windows Bitmap, JPEG, PNG, GIF
- *Copy*: it copies the chart in the clipboard (inner format is JPEG);
- *Print*: it starts the system window for choice of printer and printing of the chart;
- *Print Preview*: it starts the chart printing preview window

4.10.6. Display of Statistics

To view general statistics of the extracted data, select the contextual menu *Show Statistics*. For each measure the statistics form will displays the following values:

- Minimum value and date in which occurred
- Maximum value and date in which occurred
- Average value
- Standard deviation

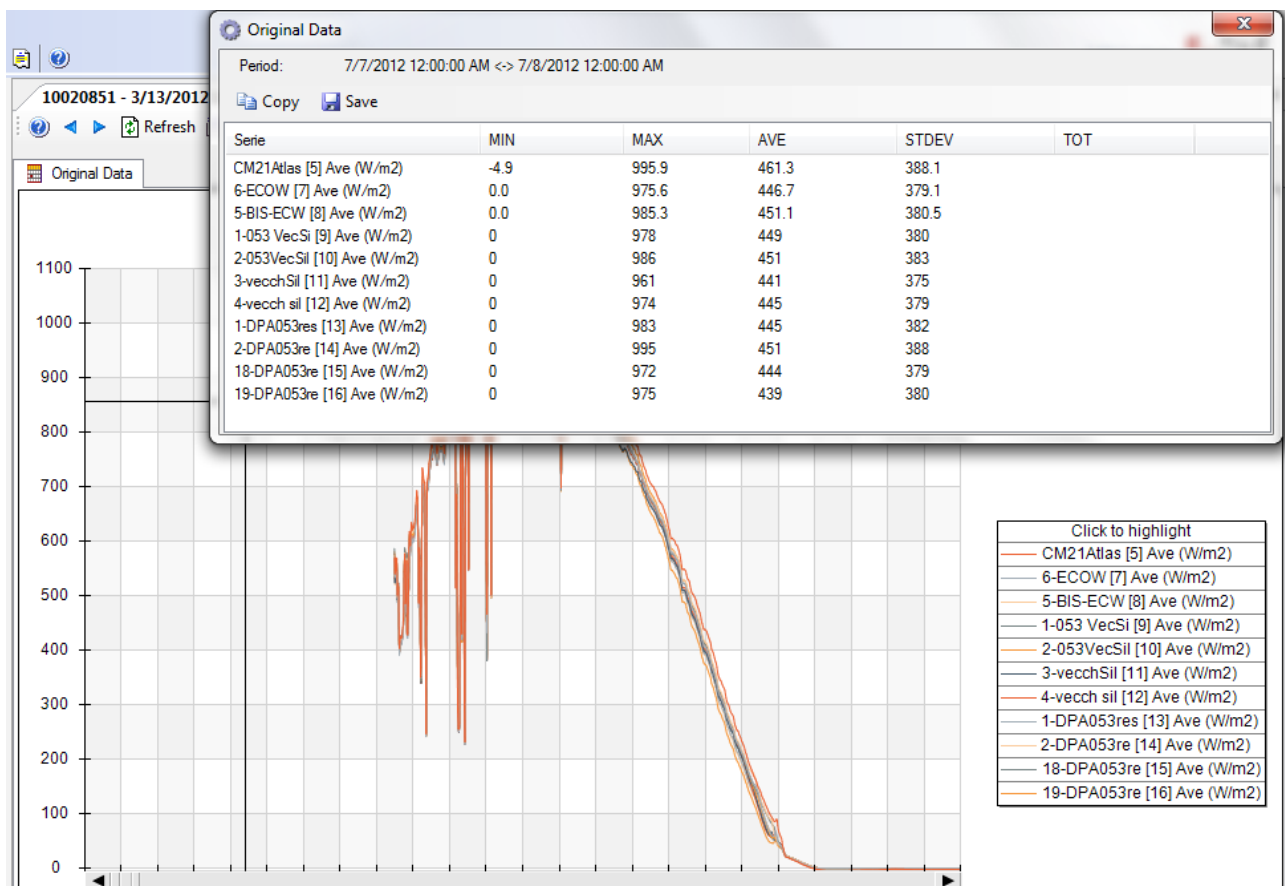
10020851 - 3/13/2012 2:05:01 PM - test CESARI+ AMRA								
Original Data								
Elaborations	CM21Atlas [5] Ave (W/m2)	6-ECOW [7] Ave (W/m2)	5-BIS-ECW [8] Ave (W/m2)	1-053 VecSi [9] Ave (W/m2)	2-053VecSil [10] Ave (W/m2)	3-vecchSil [11] Ave (W/m2)	4-vecch sil [12] Ave (W/m2)	
Max. Value	1100.2	1062.3	1067.2	1076	1080	1060	1066	
Date of Max. Value	7/14/2012 11:54:00 AM	7/11/2012 11:55:00 AM	7/23/2012 12:17:00 PM	7/14/2012 11:54:00 AM	7/14/2012 11:54:00 AM	7/14/2012 11:54:00 AM	7/14/2012 11:54:00 AM	
Min. Value	-5.7	0.0	0.0	0	0	0	0	
Date of Min. Value	7/12/2012 8:33:00 PM	7/7/2012 8:04:00 PM	7/7/2012 8:09:00 PM	7/7/2012 8:06:00 PM	7/7/2012 8:06:00 PM	7/7/2012 8:06:00 PM	7/7/2012 8:06:00 PM	
Average Value	290.8	279.5	282.2	283	282	278	278	
Standard Deviation	343.0	329.1	335.6	335	332	329	327	
Total								

Please note that:

- The statistics are calculated over the period of data extraction.
- The statistics are calculated based on the elaborated rate of extracted data.
- The statistics are not calculated for measures that do not require elaboration (for example the standard deviation) and for the variables related to the direction.
- For measures that are processed as *Total* (for example the precipitation) it is also displayed the value *Total* while the *Average value* and the *Standard deviation* are not evaluated.

4.10.6.1. Chart Statistics

The chart statistics show statistical values only on the portion of the chart displayed along the x-axis. To view statistics on the chart select the context menu *Shows Statistics*. The chart statistics are displayed in a new window and are updated in real time by changing the visible portion along the x axe of the chart:




Please note that:


- The statistics window is always on top
- To close the window using the close button of the window
- If you filter the series displayed on the chart, even the statistics window updates accordingly
- Each chart displays its own statistics window.
- Statistics are relative to the portion of the graph displayed along the x axis. Any zoom along the y axis are not reflected in the calculation of statistics.

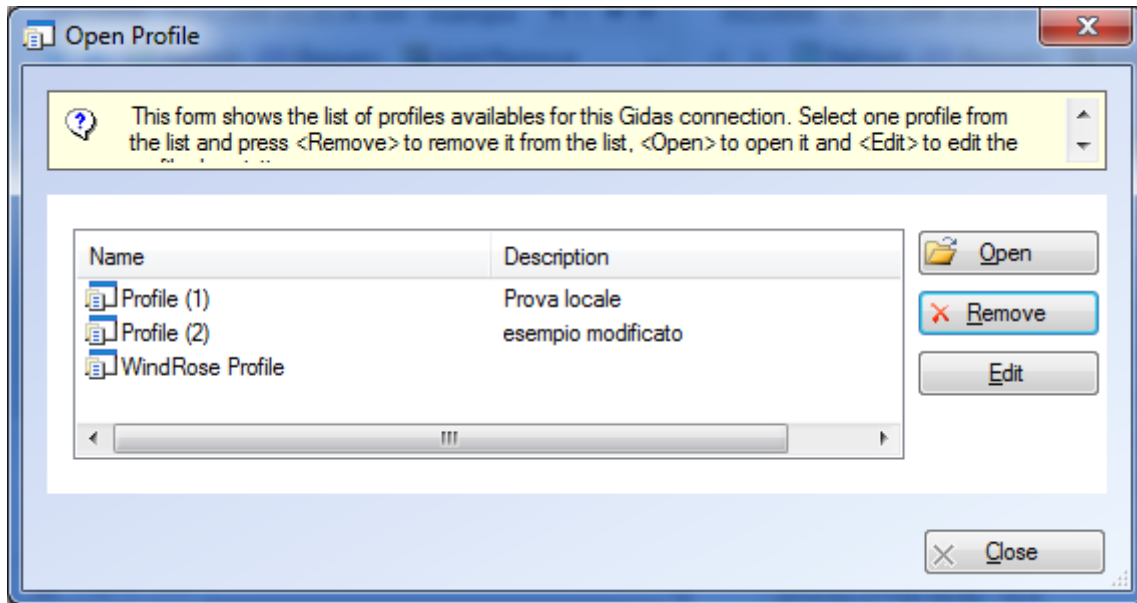
4.11. Display Profiles

It is possible to save the current view (i.e. all data visible display windows) in a display profile that can be recharged at any time. In this way all the data visible display windows are reloaded with the same settings used when you saved the display profile.

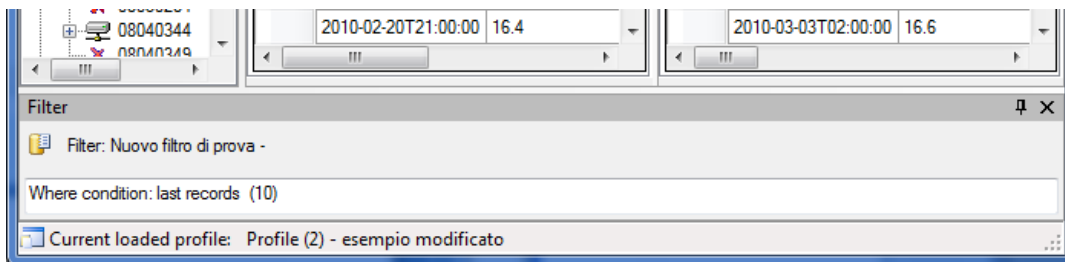
The profile contains a description of the options for data extraction and location of each active data display window; to save a profile you must associate a filter to every data display windows (§4.9); if you save a profile when one or more data windows are not associated with an extraction filter the program will require to save each of these filter.

To save current profile select menu *File* → *Save Profile* or the button ; to save current profile with another name select menu *File* → *Save Profile As*; to close the current profile select menu *File* → *Close Profile*. When you close current profile the program does not close the display data windows.

To load a profile select menu *File* → *OpenProfile* or the button ; the window shows the list of the available profiles and you can remove, edit or load the selected profile:



The current profile is displayed in the application status bar.



4.11.1. Load automatically a display profile

It is possible to load a display profile automatically when the program starts. To enable this feature select menu *Options* → *Program Settings*, the tab *General* and select the control box *Automatically load the current profile when the program starts*.

When this setting is selected, the program load automatically the display profile that was current when the program was close last time.

To disable the automatic loading of a profile unselect the control box *Automatically load the current profile when the program starts* or close the current profile before closing the program.

4.12. Backup and Restore of instrument data

Using the menu *Tools* → *Instrument Backup* you can start the wizard to export data from one instrument into an archive file, using the menu *Tools* → *Instrument Restore* you can launch the wizard to restore a previously backed up data file.

These procedures are only available for instruments with a regular license file.

WARNING:

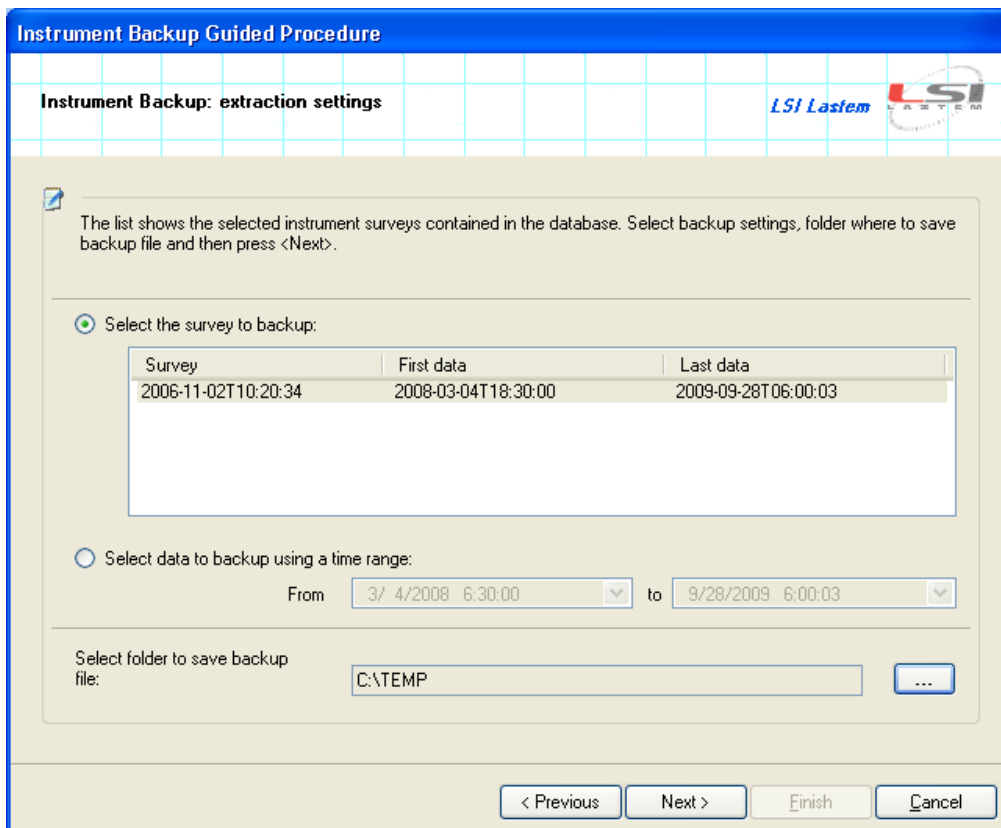
This procedure should not be used as replacing the usual practice of backing up the Gidas database files but only as a way to export large amounts of data which are thus available for subsequent re-importation or to move data from one database to another.

4.12.1. Instrument Backup

The procedure for instrument backup requires the user to specify:

- the instrument to be exported;
- the choice of data to be exported;
- the folder where to save the backup file.

It is possible to backup a single complete survey or select a time period which may also include more surveys:



The backup file is a regular zip file that contains several files; the name of the backup file is assigned by default:

- single survey: [folder]\[serialnumber]_Survey_[yyyy-mm-dd].gidas.bck
- time range period: [folder]\[serialnumber]_Time_[yyyy-mm-dd]_[yyyy-mm-dd]-gidas.bck

where:

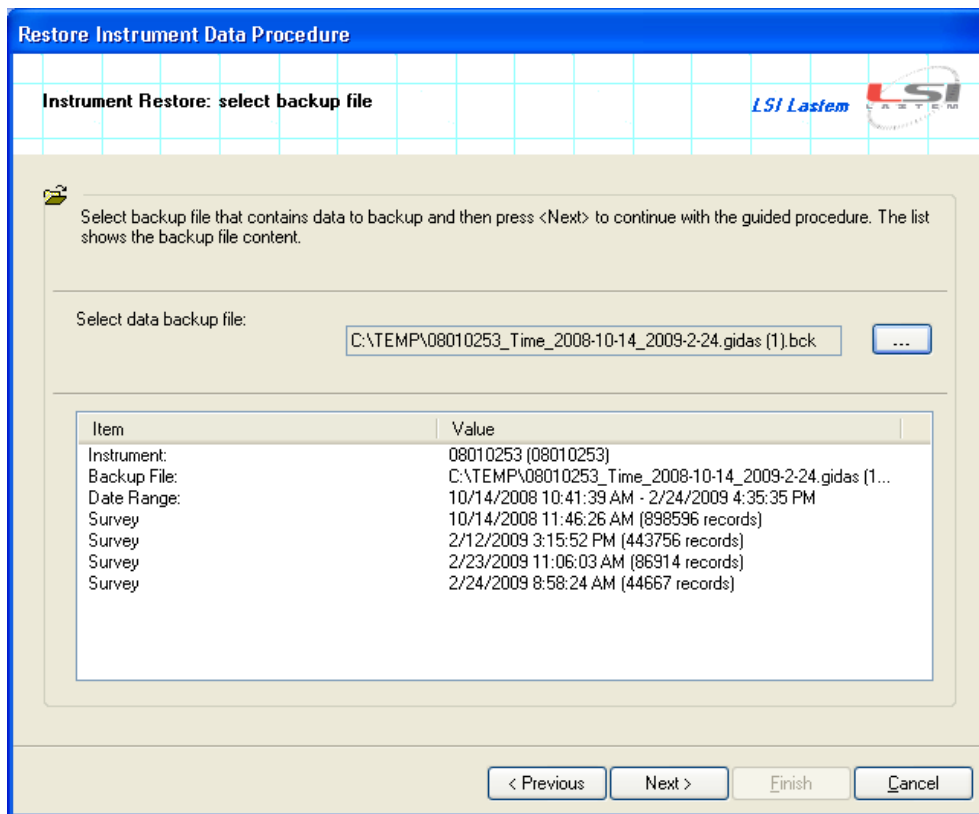
- [folder]: it is the folder where to save the backup file;
- [serialnumber]: it is the instrument serial number;
- [yyy-mm-dd]: it represents the survey configuration date or the *time* period of temporal data mining.

If the backup relates to an entire survey, after completing the backup the user can decide whether to permanently delete the survey from the database.

The process of storing data can be time consuming and create large files based on the amount of data to be exported. It is possible anyway to stop the procedure before its conclusion.

4.12.2. Instrument restore

The procedure for restoring data requires the user to specify the name of the archive file and dumps the contents before proceeding with the data extraction.

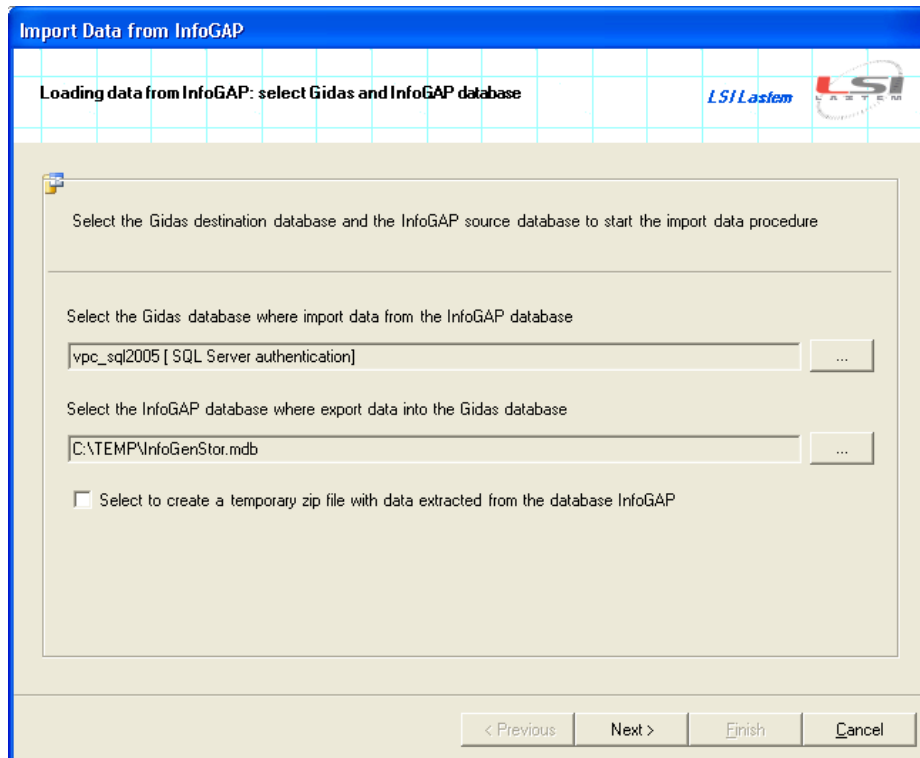


The process of data restore can take much time based on the amount of data to be restored. You can stop the procedure before its conclusion: in this case the data will remain partially restored in the database.

Note that the recovery process does not replace data already stored in the database, but it just adds the missing ones.

4.13. Import data from an InfoGAP archive

Using the menu *Tools* → *Import Data from InfoGap Database* you can start the wizard to import data from one valid *InfoGAP* database.



The procedure requires you to specify the target *Gidas* database and the source *InfoGAP* database; it is also possible to save the data in an archive file that has the same format used by the data backup procedure (§ 4.12).

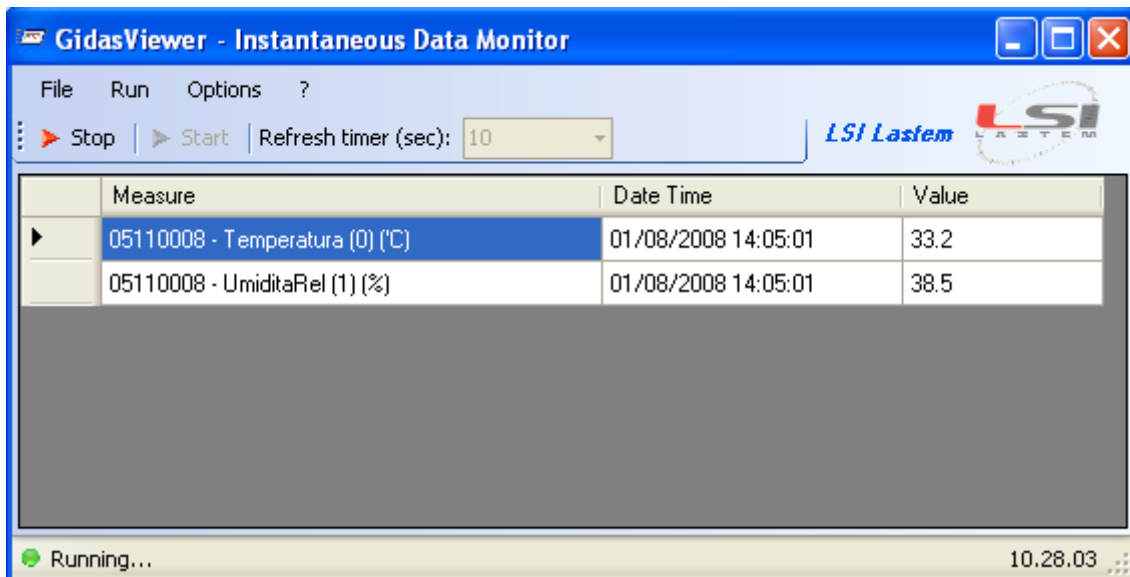
The procedure requires two steps: extracting data from *InfoGAP* database and import data in the *Gidas* database.

The procedure allows you to import only the data stored from an E-Log class datalogger or higher and supports only tables *I1st*, *Ave*, *AveStDev*, *MinAveMaxStdev*, *MinMax*, *MinMaxTot*, *DurationMin*, *Eolo2* and *Eolo3*.

For the table *Eolo3* are imported the following fields: *BisectPrevSect*, *CalmFreq*, *ResAveDir*, *ResAveSpeed*, *DirStDev*.

4.14. Monitor of instantaneous data

When you select one survey or one personalized view through contextual menu *View instantaneous data* it activates the auxiliary program *Instantaneous data Monitor*.



This program displays last instantaneous data stored in the database for survey or selected custom view.

Menus structure:

- *Run* → *Start, Stop*: it starts or stops the update of the window. You can also use keys under menu bar.
- *Options* → *Data tables format*: this is the same option as *GidasViewer* program and it checks the format of data displayed by table.

Textbox *Refresh timer (sec)* allows to set up the updating slot (seconds) of the data table. In addition to default values you can also input one custom value.

WARNING

The program doesn't communicate with the instruments, but it uses the data included in the database (updated by the programs) which communicate with the instruments (for ex. CommNetEG).

4.15. Program's configuration file

The name of program's configuration file is *GidasViewer.exe.config* and it's in the folder for program installation. File's format is *xml* and it includes some default setups:

```
<LSI_Lastem.Lib2.Gidas.UI.Properties.Settings>
  <setting name="UserDefinedCulture" serializeAs="String">
    <value />
  </setting>
  <setting name="ExeMonitorFile" serializeAs="String">
    <value>GidasInstMonitor.exe</value>
  </setting>
  <setting name="ExeInstallFile" serializeAs="String">
    <value>GidasDatabaseInstaller.exe</value>
  </setting>
</LSI_Lastem.Lib2.Gidas.UI.Properties.Settings>
```

Where:

- *UserDefinedCulture*: used language. Program starts use of Italian language (default setup with not assigned value) if computer has been set with Italian language, otherwise it starts use of English language. To force use of English in Italian computer input value `<value>en-us</value>`; to force use of Italian in other language computer input value `<value>it-it</value>`;
- *ExeMonitorFile*, *ExeInstallFile*: they show the name of programs used for display of instantaneous data and for installation of Gidas database.

4.16. The Update Manager program

Use menu ? → *Check for updates* to run the program *LSI Update Center* which verifies the availability of the new versions of the LSI LASTEM programs installed in the computer.

The *LSI Update Center* program is one of the components of the *LSI Support Center* program which can directly be installed by the CD of the products LSI LASTEM or from the CD of the licenses files or downloading the installer file from the site FTP of the LSI LASTEM. The *LSI Support Center* also contains the component which manages the licenses of the programs installed on the local computer (§4.5.1).

4.16.1. Installation of the program from the site FTP

If the program *LSI Update Center* is not installed in the local computer you can download the installation file from the LSI LASTEM FTP site. At the end of the downloading the installation will automatically starts; at the end of the installation the program will be started.

4.16.2. Program use

The *LSI Update Center* program is composed from two modules:

- the program *LSI Update Center Monitor* that is started in automatic with the operating system and that verify periodically the availability of updatings for all the LSI LASTEM programs installed in the computer.
- The program *LSI Update Center* that it shows the state of the available updatings and, if the case, discharge from the LSI LASTEM web site the files of installation and starts the installation of the upgrade.











The program *LSI Update Center* shows the state of the LSI LASTEM programs installed in the local computer:


LSI Update Center

Close Search Settings

LSI Lastem LSI

Update Center has detected that **one or more products need to be updated.**
 Double click the product to update on the list to start download or select [Search](#) to refresh products informations.
 Last search performed on: 4/8/2009 2:46 PM

Product	Current Version	Last Version	Dimension	Level
 3DOM	2.0.0.0	2.2.2.0	6.58 MB	Recommended
 CommNetEG	2.2.2.0			
 GidasToSynop	1.1.0.1	1.1.1.1		
 GidasViewer	2.0.0.0			
 InfoGAP	2.2.0.0	2.2.3.0		
 LSI.Evapotranspiration	1.0.3.0			
 LSI.Lib.Gidas.Writer	1.0.0.0			
 LSI.PHSMicroClimate	1.1.3.0			
 LSI.Sltn.LibraryManager	2.0.0.0	2.0.12.0	4.38 MB	Marginal
 LSI.SupportCenter	1.0.0.0			

 **3DOM:** the updating is available to the version 2.2.2.0 (dimensions: 6.58 MB)
The updating is recommended
 Select [Information](#) visualize the list of the contained changes in the last version.

For every program the installed current version and the last available version is visualized. A program can be in one of these states:

- up to date;
- not updatable: a new version exists but the product is not updatable;
- updatable: double click the product to update on the list to start download the installer file.

Selecting *Information* it is possible to visualize a web page that contains the list of the changes of all the versions of the selected program.

Through the button *Search* is adjourned the search of the updates and through the button *Settings* are modified the connection properties, if a proxy is used, and the temporal interval used by the monitor for the automatic search of the updates.

You keeps in mind that when this program is started by the menu *Start* → *Programs* of Windows or from the contextual menu of the monitor the program visualizes the results of the last automatic search effected by the automatic monitor visualizing the date of the search. To adjourn the data press the button *Search*.