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XPanel

User Guide

Updated January 8, 2020

Cod. **SWUM_00732_en_2**

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1. Introduction

XPanel : a system for the dynamic display of the data acquired by LSI LASTEM dataloggers.
It consists of: a communicator (*XPanelCommunicator*) that receives data from acquisition units and transmits them over the network through a TCP connection, and a viewer (*XPanelViewr*) that shows received data display pages containing different indicator types.

XPanel is perfect for installations where computer and data acquisition devices are permanently connected via a serial cable, line potentiometers, TCP/IP networks or radio: all connections allowing a real time update of the indicators.

1.1. New features in version 1.4

Main new features in version 1.4:

- It has been added the support for MQTTCommNet program to use new AlphaLog datalogger.

1.2. New features in version 1.3

Main new features in version 1.3:

- The main innovation introduced with version 1.3 is the management of sound alarms. Now it is possible to bind to the control a sound alarm which is activated in case of error in the data or status value in alarm. The sound alarm continues until the user does not recognize it. (§ 5.8).
- It has been improved the automatic reconnection mechanism that is activated when *XPanelViewer* loses its connection with *XPanelCommunicator*
- It has been fixed some minor problems of Table and Wind Rose Indicators.

1.3. New features in version 1.2

Version 1.2 presents some new features especially in the viewer component:

- We have added a new control named *Label States Indicator*. This control displays a series of states, defined by a range of values, showing a text or an image (§ 5.7.2.13).
- We have changed the management of the size of the font used in the controls by introducing a scaling factor that changes the font size; once identified the optimal size for a control, you can extend this setting to all controls so that the titles of all the controls on the page are the same size (§ 5.7.2.2)
- The *Table* control has undergone several improvements, now you can:
  - record the minimum and maximum values selecting the reset time;
  - resize the data column widths respect to the Date Time one;
  - change the font size of table rows; now it is related to the one of the title of the control;
  - remove the title aligning the table to the upper border of the control.
- The background image that can be associated to a page acquires the size of the page, so resizing page does not alter the position of the control relative to the background.

- The *Label Indicator* can now be associated to a data source by displaying the received value after the text of the label.
- It has been improved the management of checks at loading configurations and fixed some minor bugs.

In the communication component were fixed some small problems in the configuration check and has been changed the method of calculation for the invalidation factor of data for the devices that communicate via *CommNetEG* (§ 4.5.3.1):

2. System Requirements

The program requires the following hardware and software components:

Personal computer

- Processor with operating frequency of 600 MHz or more, 1 GHz recommended;
- Display card: SVGA resolution 1024x768 or more; standard screen resolution (96 dpi).
- Operating system (*):
  - Microsoft Windows 7/2003/8/2008/2010
- Microsoft .NET Framework V.3.5 (**);

(*) 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.
(**)The Microsoft. NET Framework 3.5 setup is included in the LSI Lastem product DVD issued after March 2011 and, if necessary, is automatically installed during the installation process starts from the DVD. If you do not have the updated version of the DVD you can download the installer for the Microsoft. NET Framework 3.5 directly from the Microsoft Download Center at http://www.microsoft.com/downloads/en/default.aspx inserting in the search field. the term ".NET".
On Windows 8 you can enable. NET Framework 3.5 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 3.5.1. . This option requires an Internet connection.
The program makes use of NLog component (Copyright (c) 2004-2009, Jaroslaw Kowalski All rights reserved).

Data Loggers

- LSI LASTEM Data loggers: E-Log, R-Log, M-Log, S-Log; data radio communicator LSI LASTEM R-Comm.
- LSI LASTEM Data loggers: AlphaLog with *MQTTCommNet* program.

3. XPanel Components

XPanel consists of two components:

- *XPanelCommunicator*: is the program that communicates with instruments and makes instant data available over the network via a TCP connection; to operate, it requires the *3DOM* program to be installed on the same computer.
- *XPanelViewer*: is the program that receives data from the communicator and displays them.

3.1. Single computer configuration

In the typical configuration based on a single computer, *3DOM* programs, *XPanelCommunicator* and *XPanelViewer* are installed on the same instrument:

- *3DOM* configures the instruments whose data need to be displayed;
- *XPanelCommunicator* interrogates instruments and makes data available;
- *XPanelViewer* displays the received data.

3.1.1. Instructions for use

How to use Xpanel on a single computer:

1. Install *3DOM*, *XPanelCommunicator* and *XPanelViewer* programs on a PC;
2. Configure the instruments (devices) by using *3DOM* program; if the instruments are already configured, configurations should in any case be downloaded to your computer;
3. Install the licenses for the instruments (devices) to be used with *XPanelCommunicator*;
4. Start *XPanelCommunicator* program and create a new configuration by adding the instruments (devices) to be used with the program;
5. Start *XPanelViewer* program and create a new configuration by entering the TCP 127.0.0.1 address and the port configured in *XPanelCommunicator* program (default 9997) as configuration parameters;
6. Check for proper data reception

3.2. Client-Server network configuration

In a client-server network configuration, *3DOM* and *XPanelCommunicator* are installed on the server computer, while only *XPanelViewer* needs to be installed on client computers.

On the server:

- *3DOM* configures the instruments whose data need to be displayed;
- *XPanelCommunicator* interrogates the instruments and makes data available through a TCP connection.

On client computers:

- *XPanelViewer* displays the data that were made available by *XPanelCommunicator*.

3.2.1. Instructions for use

How to use *XPanel* in a Client-Server configuration:

Server Computer

1. Install *3DOM* and *XPanelCommunicator* programs on the Server Computer;
2. Configure the instruments (devices) by means of *3DOM* program; if the instruments are already configured, configurations should in any case be downloaded to your computer;
3. Install the licenses for the instruments (devices) to be used with *XPanelCommunicator*;
4. Start *XPanelCommunicator* program and create a new configuration by adding the instruments (devices) to be used with the program;
5. Start communication and check for proper operation.

Client Computer

6. Install *XPanelViewer* program on the Client Computer;
7. Start the program and create a new configuration by entering the server computer TCP address and the port configured in *XPanelCommunicator* program as configuration parameters;
7. Check for proper data reception.

3.3. Use in association with CommNetEG

XPanelCommunicator communication program can communicate directly with the different devices configured by 3DOM or use the instant data produced by CommNetEG. In this case the communication with the various devices is performed by CommNetEG (2.5.3.0 version or higher).

3.3.1. Instructions for use

How to use *XPanel* system in association with CommNetEG:

Computer Communication

1. Install *3DOM*, *CommNetEG* and *XPanelCommunicator* programs on the Server Computer;
8. Configure the instruments (devices) by means of *3DOM* program; if the instruments are already configured, configurations should in any case be downloaded to your computer;
2. Configure *CommNetEG* by associating all the devices (instruments) to be used with *XPanel* to the *XPanelFile* data storage support. Instruments can belong to different groups and store processed data as well: what matters is that they save the instant data to the *XPanelFile* data storage support in order to make data available by *XPanel*;
3. Install the licenses for the instruments (devices) to be used with *XPanelCommunicator*;
4. Start *XPanelCommunicator* program and create a new configuration by adding the instruments (devices) starting from *CommNetEG* configuration(§4.5.3);
5. Start communication and check for proper operation.
6. As to XPanelViewer program, proceed as indicated in the previous paragraphs depending on whether the program is installed on the same computer or on a client computer.

ATTENTION
If the configuration of a device (or of CommNetEG) or of the communicator is modified at a later date, the Viewer configuration as well could be influenced by the change and need an update. (§5.4)

ATTENTION
Both programs are started by automatically loading the current configuration at previous switch off.

3.4. Use in association with MQTTCommNet

XPanelCommunicator communication program can communicate directly with the different devices configured by 3DOM or use the instant data produced by MQTTCommNet In this case the communication with the various devices is performed by MQTTCommNet.

3.4.1. Instructions for use

How to use *XPanel* system in association with MQTTCommNet:

Computer Communication

7. Install *3DOM*, *MQTTCommNet* and *XPanelCommunicator* programs on the Server Computer;
9. Configure the instruments (devices) by means of *3DOM* program; if the instruments are already configured, configurations should in any case be downloaded to your computer;
8. Configure *MQTTCommNet* by associating all the devices (instruments) to be used with *XPanel*;
9. Install the licenses for the instruments (devices) to be used with *XPanelCommunicator*;
10. Start *XPanelCommunicator* program and create a new configuration by adding the instruments (devices) starting from *MQTTCommNet* configuration(§4.5.3);
11. Start communication and check for proper operation.
12. As to XPanelViewer program, proceed as indicated in the previous paragraphs depending on whether the program is installed on the same computer or on a client computer.

ATTENTION
If the configuration of a device (or of** MQTTCommNet**) or of the communicator is modified at a later date, the Viewer configuration as well could be influenced by the change and need an update. (§5.4)

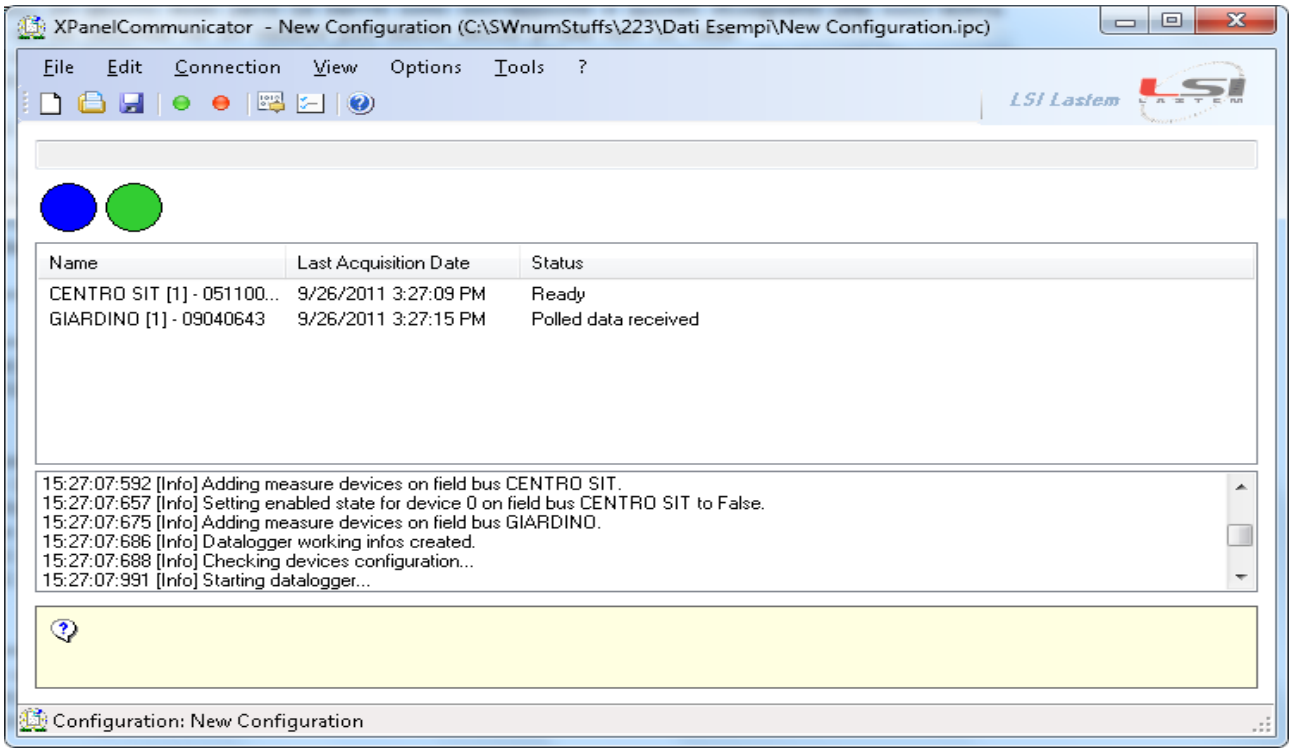
ATTENTION
Both programs are started by automatically loading the current configuration at previous switch off.

4. XPanelCommunicator

XPanelCommunicator program communicates directly with instruments and makes instant data available through a TCP connection. Instantaneous data can be obtained by communicating directly with the instruments or by using the data files generated by the *CommNetEG* and *MQTTCommNet* programs.

4.1. User interface

The program main window is displayed as shown below:



Specifically:

- the top of the window shows the communication status indicators of the different configured devices: holding the mouse pointer over an indicator displays its name, clicking an indicator selects also the corresponding item in the list.
- for each configured device, the list contains the date of the last acquisition and the communication status (that corresponds to a specific color of the corresponding indicator)
- the program operation log display is shown at the bottom of the list: selecting an item displays additional info.

4.1.1. Menu

The program includes these menus:

File

- *New*: creates a new configuration.
- *Open*: opens an existing configuration.

- *Close*: closes the current configuration.
- *Save*: saves the current configuration.
- *Save As*: saves the current configuration with a new name.
- *Recent Configurations*: displays the list of recently opened configurations.
- *Exit*: closes the program.

Edit

- *Edit Current Configuration:* stops communication and opens the window for the current configuration modification.

Connection

- *Start Receiving Data:* starts communication with instruments making the received instant data available;
- *Stop Receiving Data:* stops communication with instruments.

View

- *Instant Values:* displays the window showing the available measuring instruments and those where the association between measurements and quantities used for calculations is already configured.
- *Clear Log List:* clears the list of log messages displayed by the program without changing the log file contents.
- *Go to Log Folder:* opens the folder where the log files generated by the program are stored.

Options

- *Settings*: shows the window with the program general settings.

Tools

- *License Manager:* starts the licenses management program.

?

- *Contents:* shows the program user manual.
- *Check for Updates:* sends a request for available updates;
- *About:* shows the program information window.

Some of these menu items are available also as button bar under the main window menu; place the mouse pointer on a button and wait for a brief description.

4.1.2. Colors of communication indicators

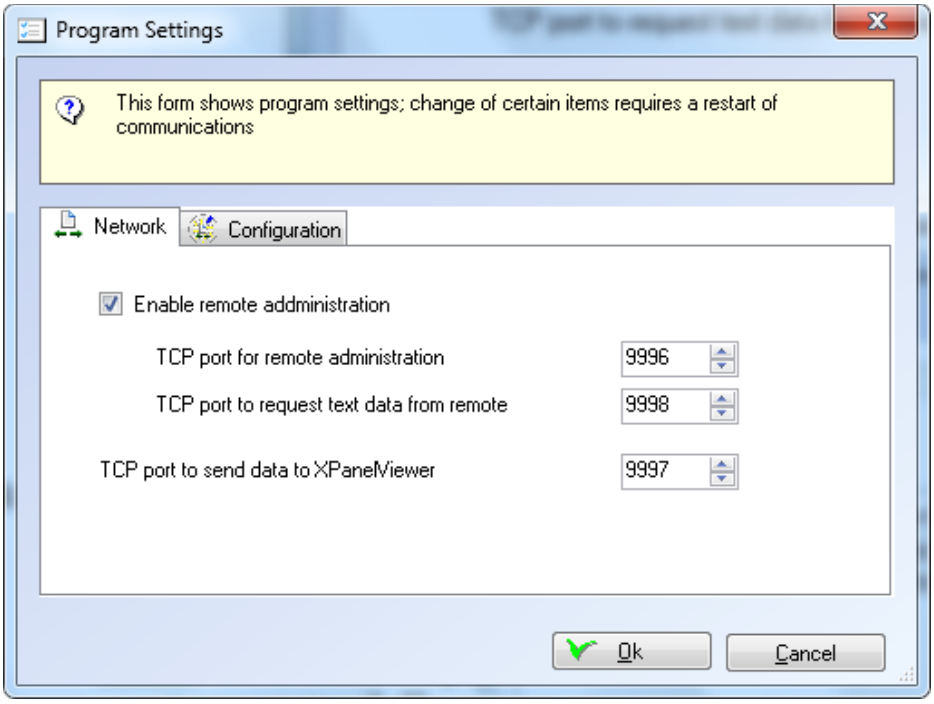
Based on the communication status, indicators have the following colors:

- white: system in a stop condition
- blue: communication channel connected, system ready for communication
- yellow: communication in progress
- light green: communication with device took place correctly and new measurements were acquired
- dark green: communication with device took place correctly

- orange: a random communication error was detected with the apparatus connected to the communication channel
- red: a continuous communication error was detected with the apparatus connected to the communication channel
- purple: connection error of communication channel
- light grey: communication channel disconnection in progress
- dark grey: system was started with communication channel not connected (serial, TCP)
- light blue: communication channel connection in progress
- black: critical error occurred in the communication channel

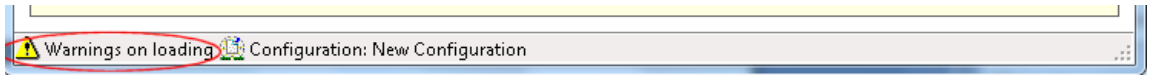
4.2. Program general settings

The program general settings administration window is opened through the *Options* → *Settings* menu:



The following can be entered in this window:

- TCP port for data transmission to *XPanelViewer* in the *Network* tab*;*
- *Hide warning messages on loading configuration* option in the *Configuration* tab; if this option is NOT selected and warning messages are generated during the configuration loading process, the program displays the message window and waits for the operator's intervention. Selecting this option sets the program for automatic startup. Any warning messages are shown in the status bar of the program and can be displayed by clicking the icon.



4.3. Program startup: last configuration automatic loading

If the program is closed when a certain configuration is being used, this will be automatically reloaded at the next restart of the program and communications will be automatically restarted.

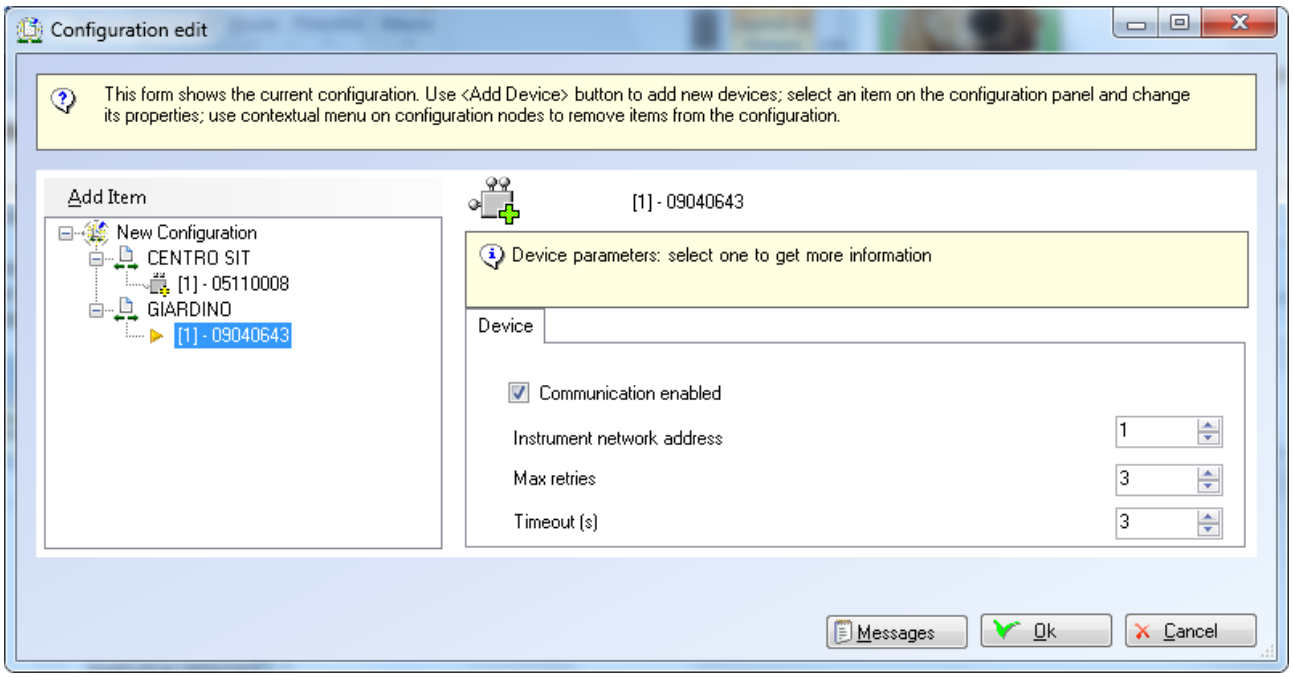
4.4. Opening a configuration

To open an existing configuration, select *File* → *Open* menu or *File* → *Recent Configurations* menu. After loading the configuration, the program activates communications with devices and starts making data available through the TCP connection associated to the instrument where the program is installed and to the port indicated in the program general settings.

4.5. Creating/changing a configuration

To create a new configuration, select *File* → *New* menu; to change an existing one, select *Edit* → *Edit Current Configuration* menu.

If a new configuration is being created, the program will close the current one; if the current configuration is being changed, the program will stop communications.
In both cases, the window for the configuration change will be displayed:

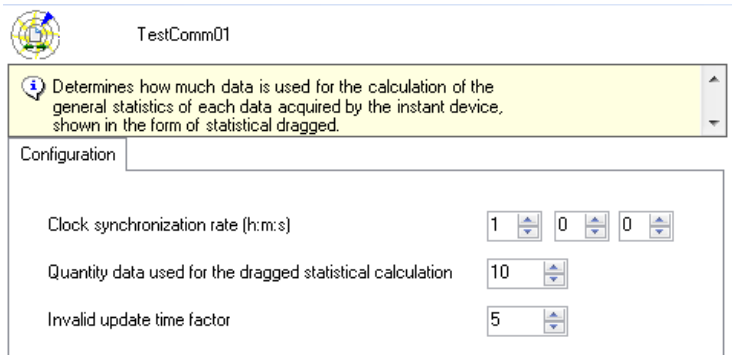


The window displays the list of communication channels and connected devices on the left; selecting an item, a detail is shown on the right allowing the change.

Devices can be added and queried directly by the program (§ 4.5.2) or can be used the data created by the programs *CommNetEG* (§ 4.5.3) and *MQTTCommNet* .

4.5.1. Configuration parameters

Each configuration requires to specify the parameters shown in the following figure:



Selecting an item displays a brief description of its meaning (in this case, it explains how much data is used for the dragged statistics).

4.5.1.1. Data invalidation factor and warning message of not updated values

The program periodically evaluates the condition of each measurement based on the value of its update rate. If, for instance, a measurement has an update rate of 20 seconds, the program indicates the measurement as not updated in case a new value is not received within a period of time given by *(update rate) x (data invalidation factor)*. If, for instance, the data invalidation factor value is 5, the measurement will be considered as updated after 100 seconds (20 x 5).

When *XPanelCommunicator* sends a warning message about a measurement not being updated, controls associated to this measurement in the *XpanelViewer* pages report an error condition.

Since the data invalidation factor is one, while measurement update rates are many, the program recommends – based on the current measurements – a minimum value that allows to prevent the data- not-updated message from being sent in case of regular communications. The minimum recommended value is determined by the highest invalidation factor calculated for each device based on its interrogation rate and on current measurements.

Example:

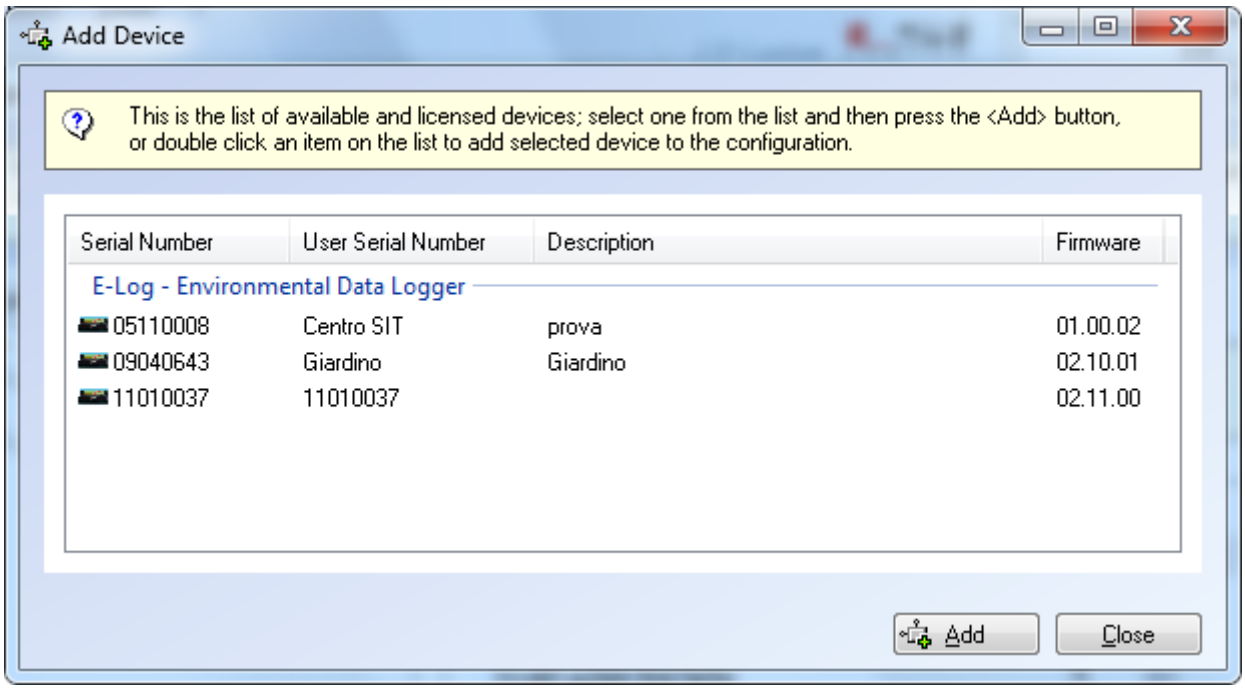
Datalogger 1:
- Interrogation rate: 60 seconds
- Minimum update rate of measurements: 10 seconds

Datalogger 2:
- Interrogation rate: 10 seconds
- Minimum update rate of measurements: 10 secondi

In this case, the data invalidation factor for *Datalogger 1* is 6, and 1 for *Datalogger 2*; the data invalidation factor recommended by the program will be 6 (the highest among the factors calculated).

4.5.2. Adding a new device

To add a new device, select the <*Add Item*> -> <*Add Device*> button:



The *Add Device* window shows the list of available devices.

ATTENTION
Only the devices that meet the following requirements are available:

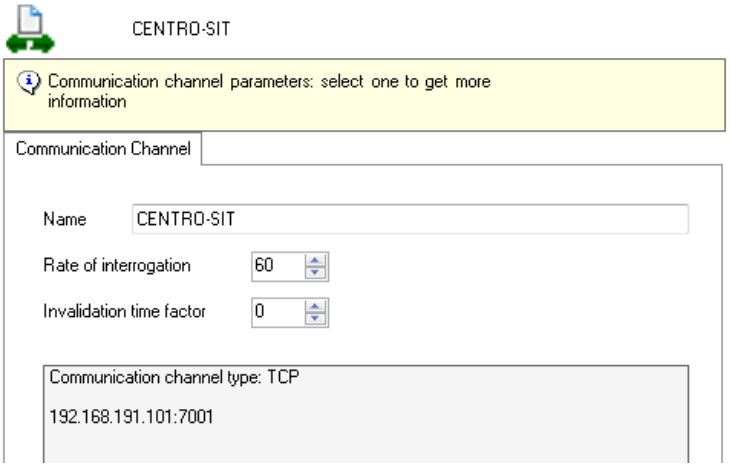
- ***A valid license was installed for the use of the device with XPanelCommunicator program;***
- ***The device configuration was downloaded from the current computer through 3DO program M.***

Selecting the desired device will make the device be added to the communication channel that shows the same communication type or, failing this, a new communication channel suitable for the device administration will be created.

To remove a device or a communication channel, select one from the list, then select <*Remove*> from the context menu accessible through a right-click of your mouse.

4.5.2.1. Configuration of a communication channel

Communication channels are automatically created when a device showing a communication type not compatible with the current communication channels is added.



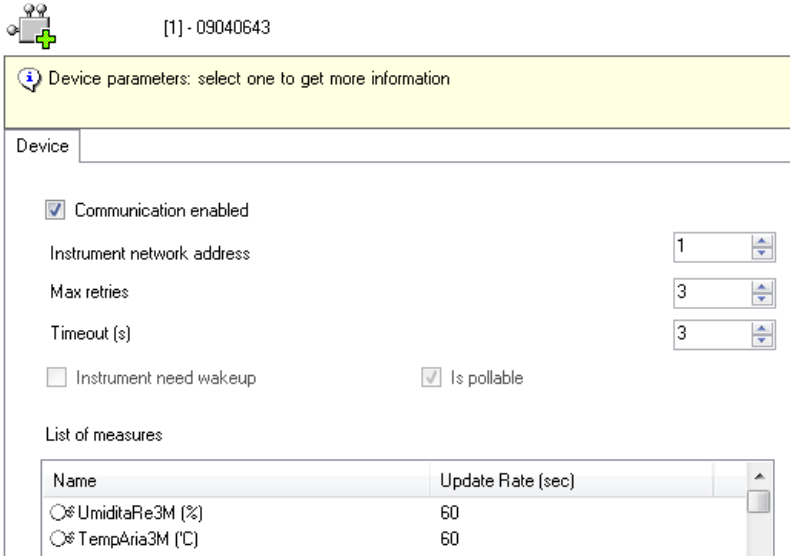
Communication parameters CANNOT be changed (in this case, it's a TCP communication on 192.168.191.101:7001 address), but only the *Rate of interrogation* (in seconds) and the *Interrogation offset* (in seconds) can be changed, that is, the extra time after the interrogation time in order to allow a remote system update. Selecting an item displays a brief description of its function (the icon shows the description of the *Rate of interrogation* parameter).

ATTENTION
It is recommended to check that the Rate of interrogation of the communication channel is NOT higher than the minimum update rate of the measurements of all the included devices in order to prevent a data loss due to the finite dimension of the storage queue of device instant data.

For this reason, when a device is added, the program assigns the minimum update rate value of the device measurements as the Rate of interrogation of the communication channel.

4.5.2.2. Device configuration

When a device is added, this is configured based on the configuration parameters used by 3DOM.



Selecting an item shows a brief description of its function. The details window displays the list of the available measurements as well. "*Instrument needs wakeup*" and "*Is pollable*" options are generally default settings based on the device type and cannot be changed.

To disable communication with a device, deselect the *Communication enabled* box.

4.5.3. Adding CommNetEG –administered devices

To add the devices administered by *CommNetEG* program, select <*Add item*> -> <*Add CommNetEG Configuration*> button.

Choosing this option creates a communication channel containing all the devices included in the current *CommNetEG* configuration that were set in order to save the instant data in "*XPanelFile*" storage support. *XPanelCommunicator* program DOES NOT directly interrogate the single devices but extracts data from the text files generated by *CommNetEG*.

Note that:

- The program uses the current *CommNetEG* configuration and checks the devices that make use of *XPanelFile* storage support at every startup or download;
- Only the devices that have a valid license for *XPanel* are added to the communication channel; note that if some of the *CommNetEG*-configured instruments don't have the license to use *XPanelFile* storage support, they are not added and the program will inform – at every startup – that the number of *CommNetEG*-configured instruments differs from the number in the corresponding communication channel.
- If *CommNetEG* configuration is changed, *CommNetEG* communication channel will have to be removed and regenerated, taking into consideration that this operation could impact on *XPanelViewer* configuration.

Instrument network address, max retries, Timeout (s) parameters have no significance for the devices added to the *CommNetEG* communication channel and therefore cannot be changed. In this case the user interface shows the interrogation rate used by *CommNetEG* for the selected device.

4.5.3.1. Rate of interrogation and data invalidation factor

The rate of interrogation of the communication channel associated to *CommNetEG* represents the frequency with which *XPanelCommunicator* checks for the availability of new data in the text files generated by *CommNetEg* program.

In the calculation of the data invalidation factor (§ 4.5.1.1) for the devices in the *CommNetEG* communication channel, the program uses the maximum value between the interrogation rate of the *CommNetEG* communication channel and the interrogation rate used directly by *CommNetEG*.

Example:

```
CommNetEG interrogation 1: every 10 minutes, device measurements
updated every 5 minutes
CommNetEG interrogation 2: every 20 minutes, device measurements
updated every 5 minutes
```

If the interrogation rate of the *XPanelComunicator* communication channel is set to the fastest rate value (*interrogation 1* every 10 minutes), the data invalidation factor recommended by the program is calculated using the worst case and then is set to 4 (20/5). In this way 10 minutes after the *XPanelCommunicator* call we avoid that the measures of the devices included in *the interrogation 2* are put on error.

If *CommNetEG* uses only one interrogation to request the instant data of all the devices, we suggest to set the interrogation rate of *XPanelCommunicator* with the same rate used by *CommNetEG*.

4.5.3.2. Data files generated by CommNetEG

Data files generated by *CommNetEg* are included in:

```
{CommonApplicationData} LSI-Lastem\XPanelCommunicator\CommNetEGInstFiles
```

Where {CommonApplicationData} corresponds to:

- C:\ProgramData\ in Windows Vista and Windows 7
- C:\Documents and Settings\All Users\Application Data\ in Windows XP

4.5.4. Adding MQTTCommNet administered devices

To add the devices administered by MQTT*CommNet* program, select <*Add item*> -> <*Add MQTTCommNet Configuration*> button.

Choosing this option creates a communication channel containing all the devices included in the current *MQTTCommNetEG* configuration. *XPanelCommunicator* program DOES NOT directly interrogate the single devices but extracts data from the text files generated by *MQTTCommNet*.

Note that:

- The program uses the current *MQTTCommNet* configuration and checks the devices that make use of *XPanelFile* storage support at every startup or download;
- Only the devices that have a valid license for *XPanel* are added to the communication channel; note that if some of the *MQTTCommNet* -configured instruments don't have the license to use *XPanelFile* storage support, they are not added and the program will inform – at every startup – that the number of *MQTTCommNet* -configured instruments differs from the number in the corresponding communication channel.
- If *MQTTCommNet* configuration is changed, *MQTTCommNet* communication channel will have to be removed and regenerated, taking into consideration that this operation could impact on *XPanelViewer* configuration.

Instrument network address, max retries, Timeout (s) parameters have no significance for the devices added to the *MQTTCommNet* communication channel and therefore cannot be changed. In this case the user interface shows the interrogation rate used by *MQTTCommNet* for the selected device.

4.5.4.1. Data files generated by MQTTCommNet

Data files generated by MQTT*CommNet* are included in:

```
{CommonApplicationData} LSI-Lastem\XPanelCommunicator\CommNetEGInstFiles
```

Where {CommonApplicationData} corresponds to:

- C:\ProgramData\ in Windows 7 and superior
- C:\Documents and Settings\All Users\Application Data\ in Windows XP

4.6. Configuration compatibility with XPanelViewer

XPanelViewer program uses *XPanelCommunicator* configuration as a starting point for assigning the values detected by devices to the different graphic controls displaying them. If the communicator configuration is changed, also the viewer configuration might need to be changed.

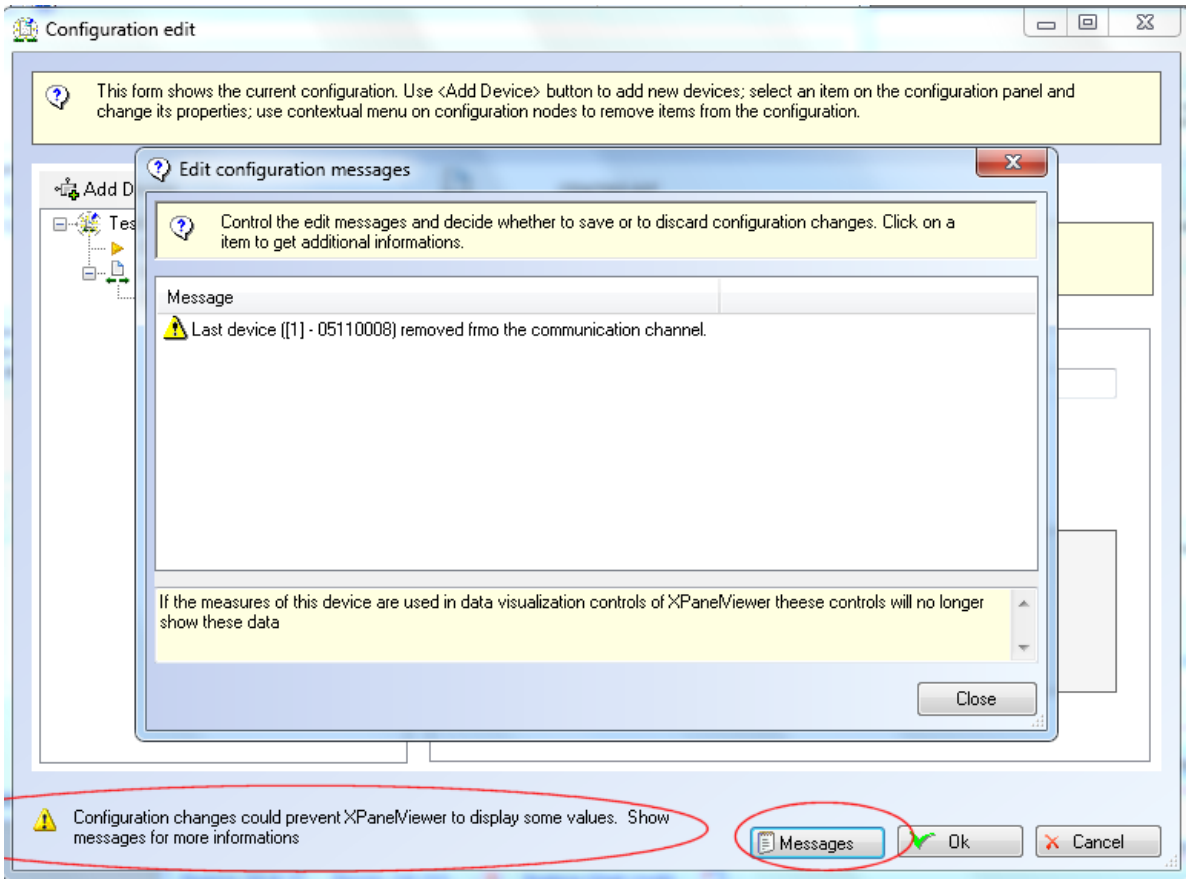
XPanelViewer program checks for the adequacy of the data sources associated to the single controls, identifying the controls connected to inexistent data sources and those connected to the data sources that have been changed while trying to restore them.

Specifically, the changes that make also the viewer configuration update suitable are the following:

- *Removal of a communication channel*: if a communication channel is removed, all *XPanelViewer* graphic controls that had been connected to the devices of that communication channel will no longer receive data. The list of these controls is indicated in the XPanelViewer interface (§ 5.5).
- *Change of a communication channel name*: *XPanelViewer* uses the name assigned to the communication channel to associate data to graphic controls; in these instances, *XPanelViewer* looks for the device associated to controls in all communication channels, automatically performing a correction and communicating the change (§ 5.5).
- *Adding a device to a communication channel*: to display a new device data, *XPanelViewer* configuration should be changed by adding the controls that make use of the new device.
- *Removing a communication channel device:* if a communication channel device is removed, all *XPanelViewer* graphic controls that had been connected to that device will no longer receive data.

These changes are communicated to *XPanelViewer* instances, that make use of the changed configuration, only during the download of the corresponding *XPanelViewer* configuration. Therefore, special attention must be paid to the changes made to *XPanelCommunicator* configuration.

Any changes that might influence a viewer configuration are reported in the edit window:



A warning message appears at the bottom of the panel. Selecting the <*Messages*> button allows to check the list of the changes that might need a modification of the corresponding *XPanelViewer* configurations.

4.7. Changing communication parameters

When a new device is added to a new configuration, it is added to the communication channel of the same communication type. If no communication channels have the appropriate requirements, a new channel is created.

ATTENTION
If the need arises to change the type of communication of an instrument (for instance, the C OM port), one should:

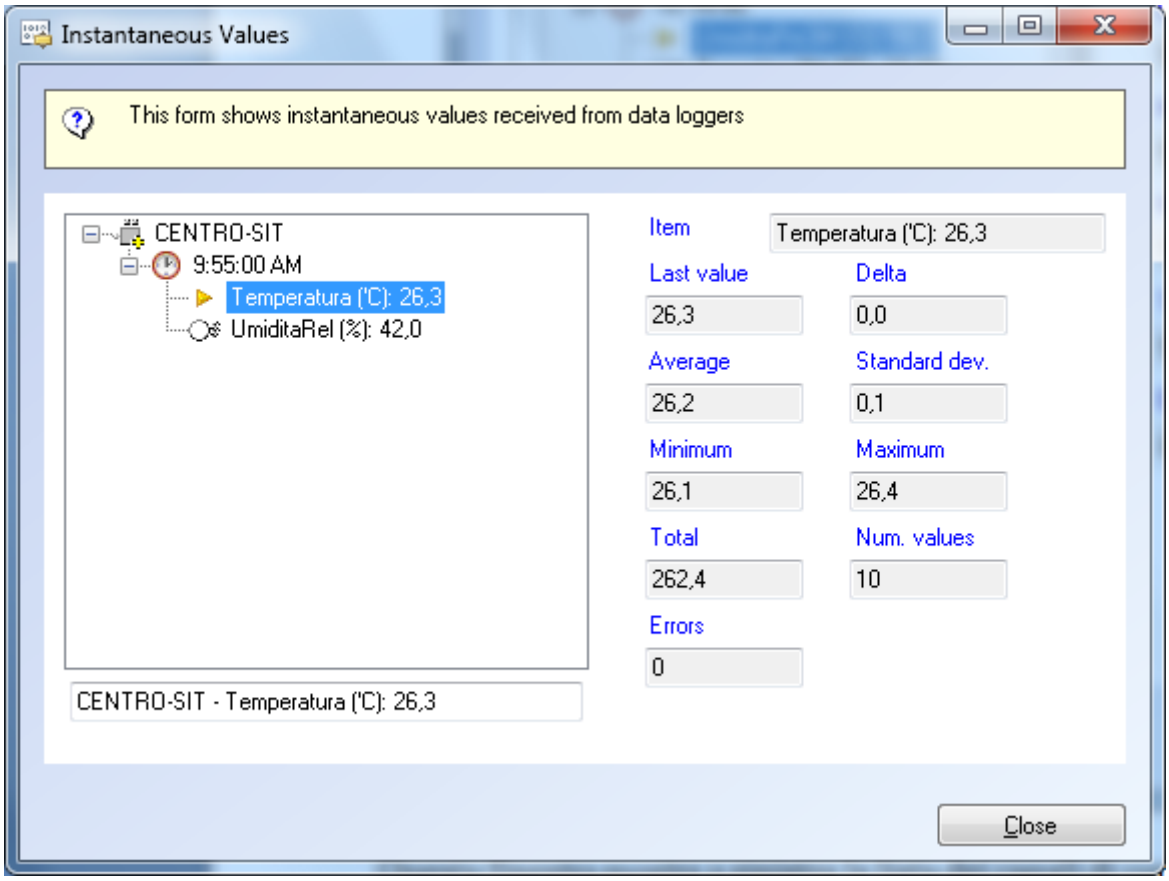
1. ***Change communication parameters through 3DOM***
2. ***Open XPanelCommunicator configuration and start the change***
3. ***Remove the instrument the communication parameters have been changed for.***
4. ***Add again the instrument (in this way, the program will add it to the correct communication channel or will create an apposite one)***
5. ***If necessary, change the XPanelViewer configurations that use that instrument.***

If however only the instrument network address is changed, it is sufficient to change it in XPanelCommunicator configuration as well without changing the configuration of the viewers that use it.

These considerations DO NOT apply to the instruments configured in the *CommNetEG* and *MQTTCommNet* communication channel.

4.8. Displaying instant values

In the *View* → *Instant Values* menu, you can access the window displaying the received instant values:



This window shows the list of the communication channels present in the examined configuration, the date/time of the last received data and the list of the available measurements along with their value. Selecting an item from the list makes a detailed description appear on the right of the window.

Not updated data are indicated with the suffix *'old'* added after the numeric value.

4.9. Log files

Log file management parameters are included in the *NLog.config* inside the installation folder of the program executable.

Log files are stored in the folder:

`{CommonApplicationData}\LSI-Lastem\XPanelCommunicator\Log`

Where `{CommonApplicationData}` corresponds to:

- `C:\ProgramData\` in Windows Vista and Windows 7
- `C:\Documents and Settings\All Users\application data` in Windows XP

To change the level of the items included in the log file, change the *minlevel* value of the two lines of the configuration file:

```
<logger name="*" minlevel="Info" writeTo="mainForm2"/>
<logger name="*" minlevel="Trace" writeTo="file"/>
```

In the order shown, the accepted values are:

- Fatal,
- Error,
- Warn,
- Info,
- Debug
- Trace

The recommended value is *Warn.* It is recommended not to set a level lower than *Info*.

4.10. End user license

The user will have to be provided with the license file associated to the instrument ID code, in order to be allowed to use an instrument.

4.10.1. The Licenses Manager program

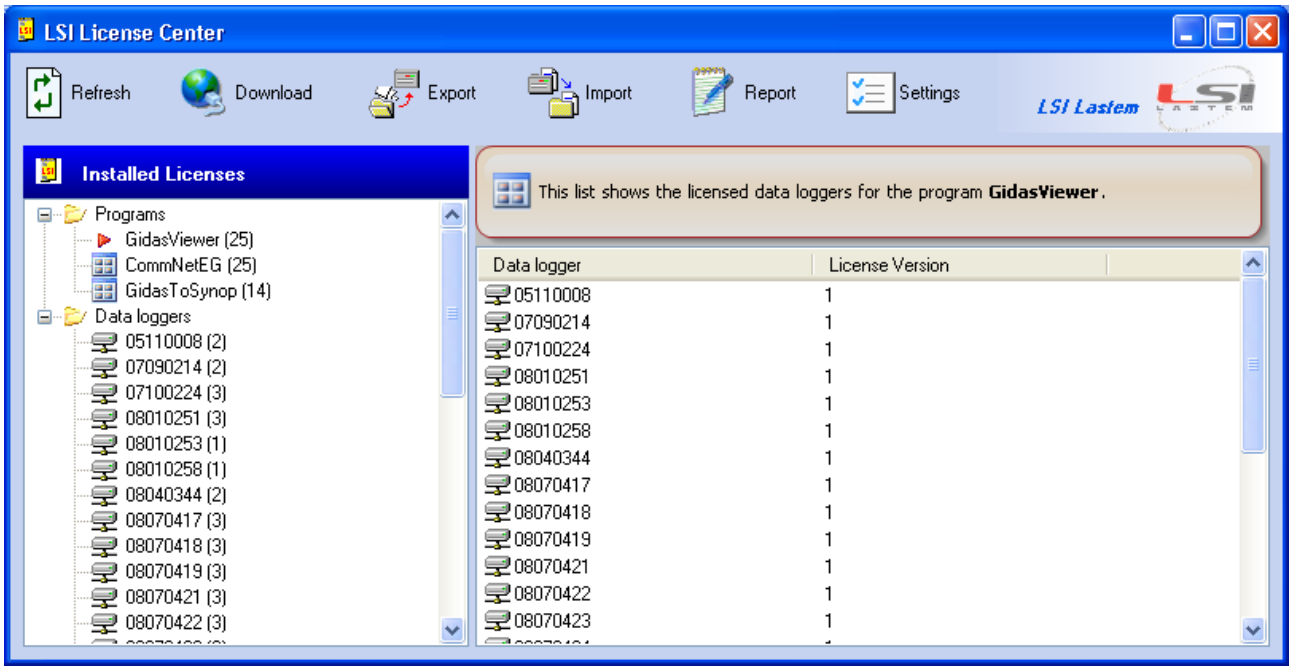
Use menu *Options* → *Licenses Manager* to run the program *LSI License Center* which manages the LSI programs licenses installed on the local computer.

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 LSI LASTEM products or from the CD of the licenses files or downloading the installer file from LSI LASTEM FTP site. The *LSI Support Center* also contains the component that checks for the availability of the new versions of the LSI LASTEM programs installed in the computer (§**Errore. L'origine riferimento non è stata trovata.**).

4.10.1.1. Installation of the program from the FTP site

If the license management program is not installed in the local computer, you can download the installation file from the LSI LASTEM FTP site. Installation will automatically start at the end of download; once the installation is complete, the program will be started.

4.10.1.2. Program use

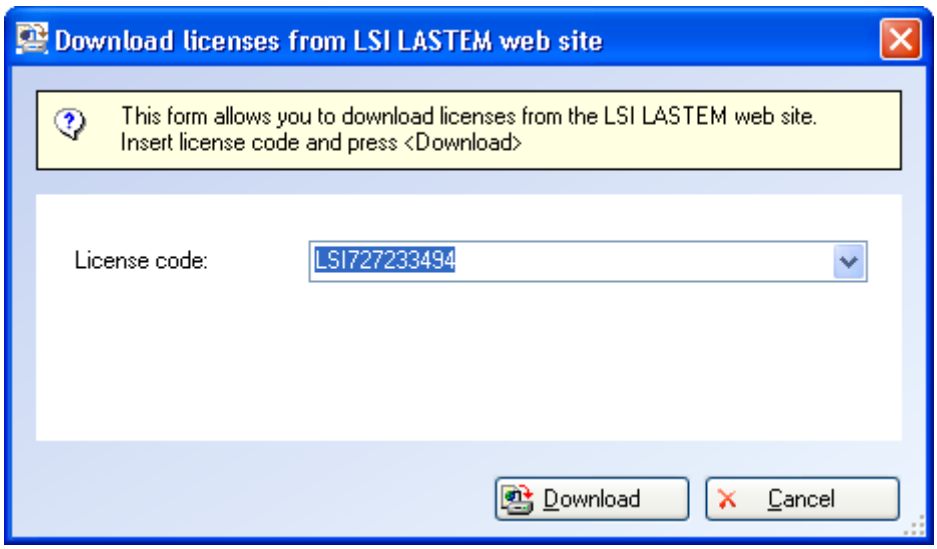


The program displays all the licenses installed in the computer split in single programs or single tools. Through this program, it is possible:

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

The license archive consists in only one file zip with .lsilic extension: that is the format of LSI LASTEM licenses.

Each license archive can be downloaded from the LSI LASTEM site by entering the License Code supplied by LSI LASTEM on purchase of the programs.



The parameters of the Internet communication can be set through the Settings button, in case a proxy server is present.

4.11. Program internal configuration file

The program configuration file is named *XPanelCommunicator.exe.config* and is included in the program installation folder. It is a *xml* file containing some operation settings of the application; specifically, the program operation can be forced to work with a language different from the default one, changing the value of the *UserDefinedCulture* property:

```
<setting name="UserDefinedCulture" serializeAs="String">
    <value></value>
</setting>
```

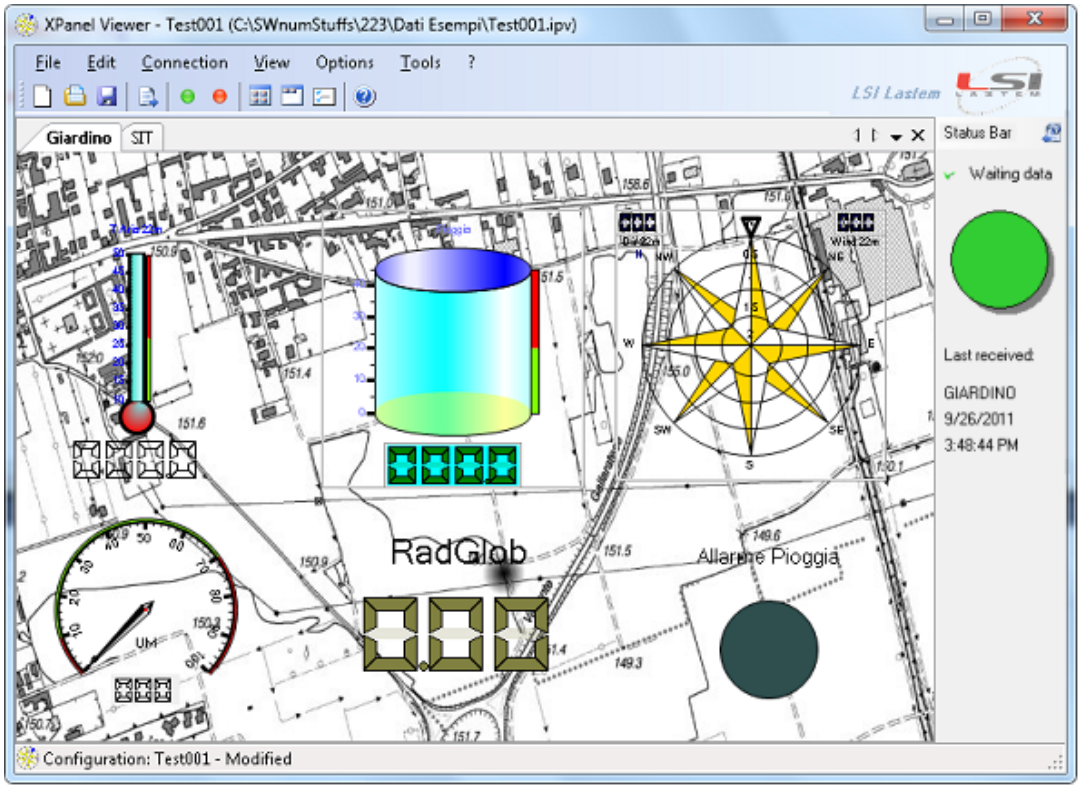
To force the use of the English language on a computer with Italian as default language, enter `<value>en-us</value>` value; to use the Italian language on a computer with a different default language, enter `<value>it-it</value>`; other localizations are not available.

5. XPanelViewer

XPanelViewer program displays the data transmitted by *XPanelCommunicator* through a TCP connection using various indicators and graphic controls. Several pages of indicators can be configured, and either the controls in the single page and the pages in the program main window can be freely positioned.

5.1. User interface

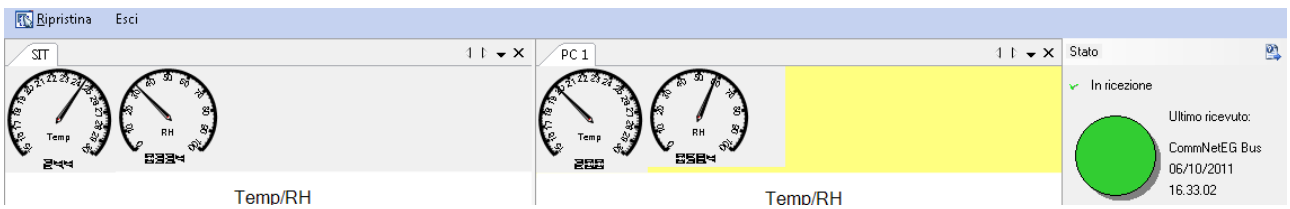
The program main window has the following aspect:



Specifically:

- On the right, there is the panel representing the status of the communication conditions;
- The central area includes the pages where data-display graphic controls are configured (in the example, two pages are shown)

View → *Hide menu* hides the menu bar, the button bar, the status bar and the window title showing a minimal bar: press *Restore* to return to the classic display, *Exit* to exit the program, and drag the bar to change the window position.



Hide Menu display mode is restored if the program succeeds in automatically loading the last used configuration.

5.1.1. Menu

The program shows the menus below:

File

- *New*: creates a new configuration.
- *Open*: opens an existing configuration.
- *Close*: closes the current configuration.
- *Save*: saves the current configuration.
- *Save As*: saves the current configuration changing its name.
- *Recent Configurations*: displays the list of the recently opened configurations.
- *Exit*: closes the program.

Edit

- *Edit Current Configuration:* stops communication and opens the window for the current configuration change.
- *Automatic Page Change:* sets the automatic page change among all the configured pages.

Connection

- *Start Receiving Data:* starts data reception;
- *Stop Receiving Data:* stops data reception.
- *Reset:* resets communication; at the end of the operation, a new connection with the communication program will have to be performed.

View

- *Arrange All Pages:* rearranges the pages so as to make them all visible at the same time.
- *Show Pages As Tabs:* rearranges the pages so as to make only one page visible at a time.
- *Hide Menu:* hides the menu bar, the button bar, the status bar and the window title

Options

- *Settings*: shows the window with the program general settings.

Tools

- *Show Sound Alarm Manager:* shows sound alarm manager window (§ 5.8).
- *Reset Sound Alarms:* resets all the sounding alarms (§ 5.8)
- *License Manager:* starts the license management program.

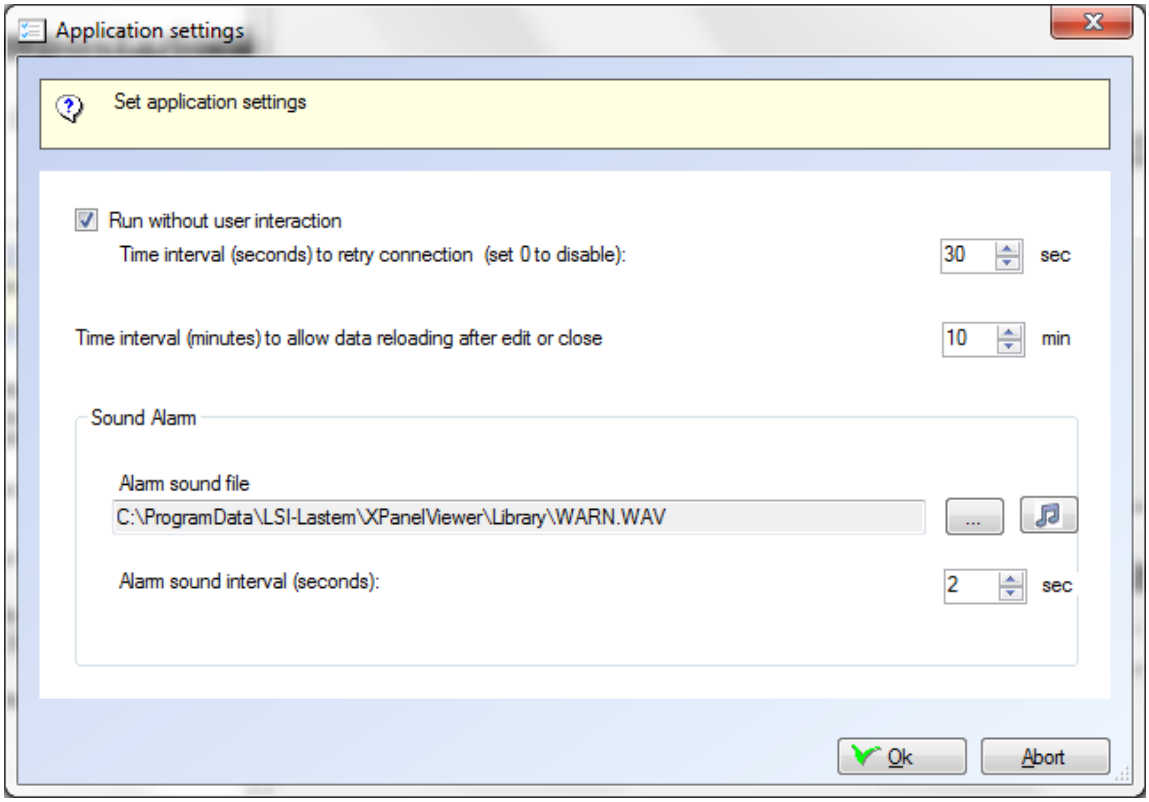
?

- *Contents:* shows the program user manual.
- *Check for Updates:* starts checking for the program update availability
- *About:* shows the program information window.

Some of these menu items are available also as button bar under the main window menu, place the mouse pointer on a button and wait for a brief description to be displayed.

5.2. Program general settings

The program general setting management window can be opened through the *Options* →*Settings* menu:



In this window, the program operation general mode can be set. Specifically:

- Selecting the "*Run without user interaction*" option, the program will not display any blocking message and will operate automatically.
- Setting a *Time interval (seconds) to retry connection* higher than zero, the program will automatically try to restore a connection in case of problems.
- When configuration is changed or closed, the data displayed by the various controls are serialized to a file; when configuration is reloaded, the serialized files are reloaded and displayed provided that the serialization date isn't lower than the current date for a time interval exceeding the minutes set in *Time interval (minutes) to allow data reloading after editing or closing.*

In the Sound Alarm tab it is possible to set (§ 5.8):

- The WAV file with the sound of the alarms.
- The time interval in seconds between one alarm sound and the following.

ATTENTION
The automatic reconnection mode should be activated together with "Run without user interaction" option, to prevent messages asking for the user reply from blocking a reconnection in any case .

5.3. Program startup: automatic reload of last configuration

If the program is closed when a certain configuration is being used, this will be automatically reloaded at the next program restart and communications will be automatically activated.

5.4. Opening a configuration

To open an existing configuration, select *File* → *Open* menu or *File* → *Recent Configurations* menu.
After reloading the configuration, the program tries to activate the communication with *XPanelCommunicator* on the TCP channel indicated in the configuration and starts data display, if no errors occur.

5.4.1. Setting a connection with the communicator

XPanelViewer configuration includes info on the TCP channel where *XPanelCommunicator* program transmission takes place. The connection process goes through several phases:

- *Connection*: the program connects to the TCP channel indicated in the configuration and starts communication with the communicator;
- *Configuration check*: the program asks the communicator to check configuration; if the communicator configuration has been changed, the user is informed about the necessity of changing also the viewer configuration; the program tries to automatically recreate the data sources associated to the various controls and indicates all the controls without data sources or with changed data sources (§ 5.5).
- *Configuration request*: the program asks the communicator for the data source configuration and checks if all the controls set in *XPanelViewer* configuration are associated to a valid data source.
- *Data Recording*: if the configuration is compatible, the program registers with the communicator for data reception and starts receiving and displaying data.

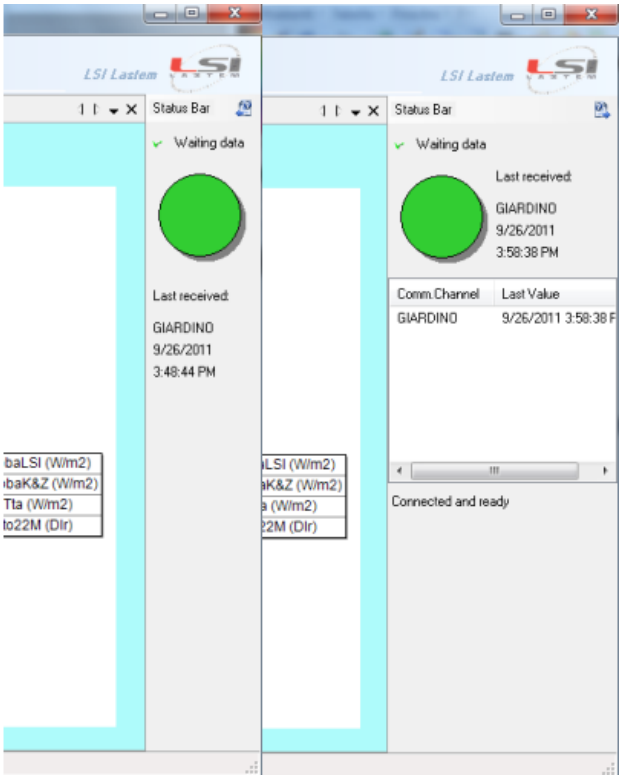
5.4.2. Automatic operation

Setting "*Run without user interaction*" (§ 5.2) general parameter, the program doesn't display messages asking for the user interaction. Specifically:

- if the communicator configuration is not compatible with that of the viewer, the program puts itself in a disconnected state;
- if the communicator configuration is compatible but shows errors, the program continues informing about the warning status in the status window.

5.5. Communication status panel

On the right, the program indicates the communication status. The panel can be reduced or enlarged to show all the available data by means of the buttons present in the upper part:



The colored indicator represents the current configuration status; the date of the last received data and the name of the relevant communication channel are shown as well.
The enlarged display shows the last received values from the communication channels and any messages received during the configuration loading, as for instance controls with no data source or controls with an automatically changed data source.

ATTENTION
Note that this indicator does NOT represent a connection with single devices (instruments) but with XPanelCommunicator program. Furthermore, the date of the last received data referred to a given communication channel only indicates that a measurement value was received from one of the devices connected with that communication channel; the controls of the other measurements might not yet have been updated. If for instance channel C1 is connected to one single device D1 including two measurements M1 and M2, that produce instant values every 10 seconds and every 30 seconds, the date of the last value received from channel C1 will update every 10 second, but measurement M2 will update every 30 seconds only.

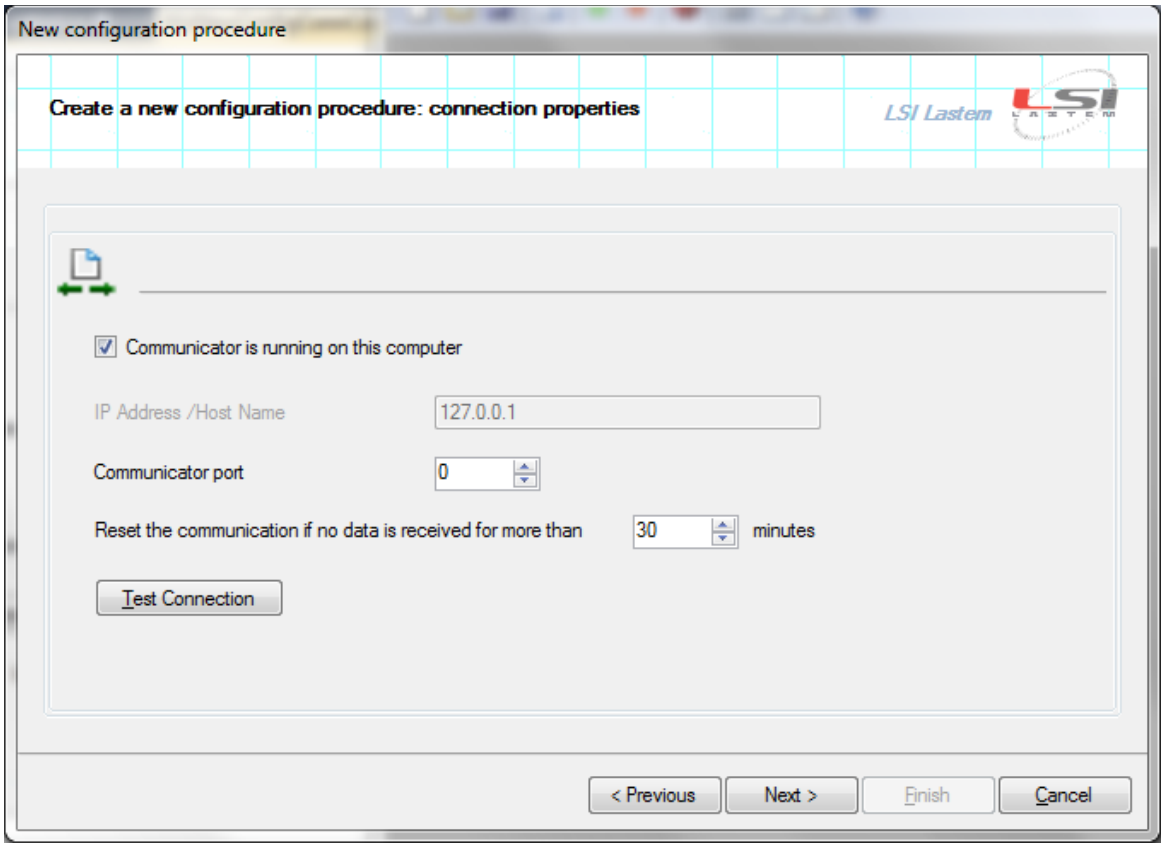
5.5.1. Colors of communication indicators

Based on communication conditions with *XPanelCommunicator*, the indicator shows the following colors:

- white: data reception interrupted
- yellow: communication in progress
- light green: data received
- red: communication error
- grey: disconnected

5.6. Creating a new configuration

To create a new configuration, select the *File* → *New* menu; in this way, a guided procedure is started for the creation of a new configuration. The guided procedure shows the window for the input of communication parameters, after asking for name and description of the new configuration:



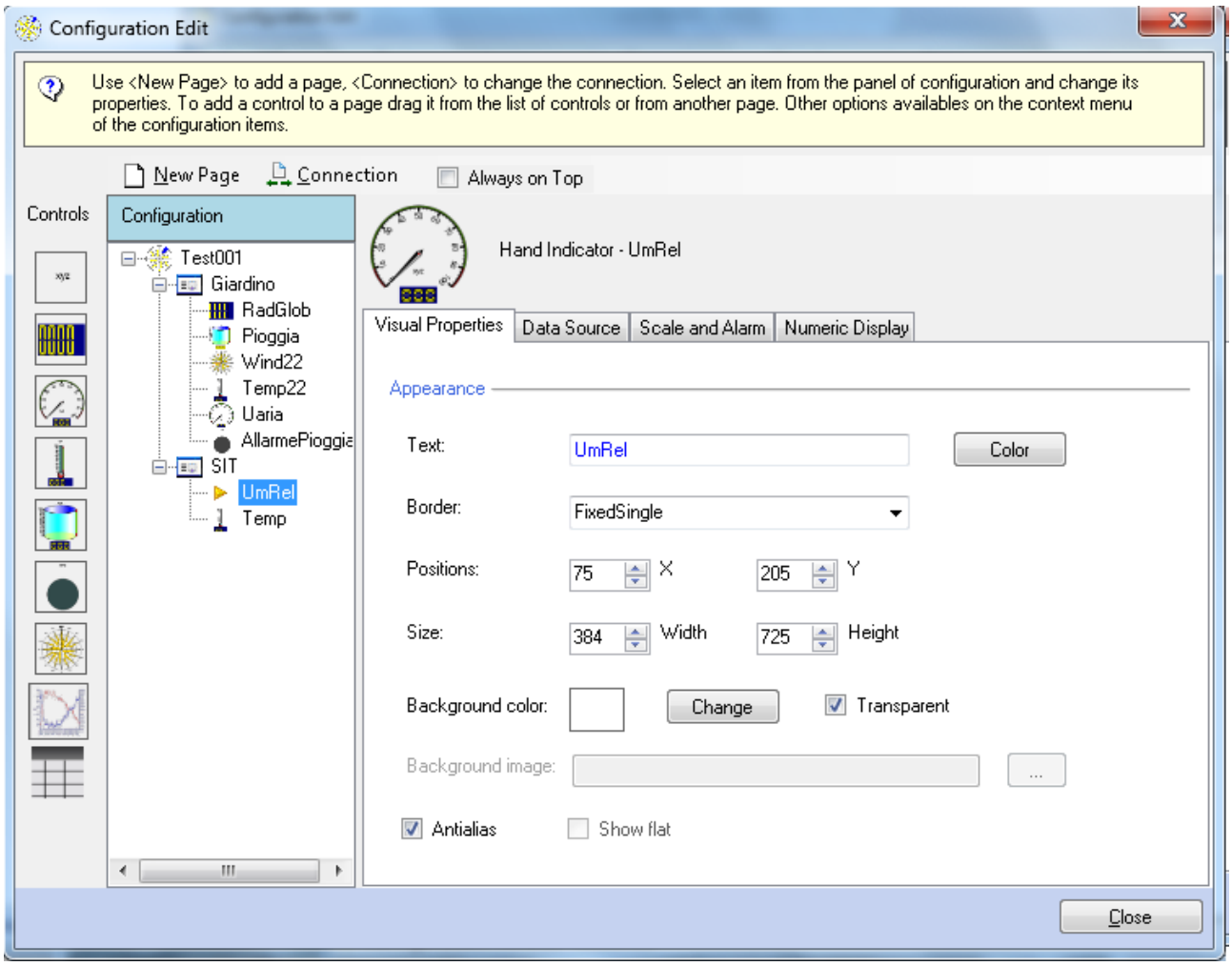
After entering the connection parameters, press the <*Test connection*> button to check for its validity: after - of course – starting *XPanelCommunicator* communication program.
In this form you can also enter a time in minutes for the control of communication: if the program does not receive data for this time it assumes that you have a problem on the communication channel of XPanelCommunicator and then it attempts to restart the communication. Setting the value to 0 minutes the program disables this control.

At the end of the guided procedure, the window for the configuration modification is opened (§ 5.7)

5.7. Changing a configuration

To change the current configuration, select the *Edit* → *Edit Current Configuration* menu. This selection opens the window for the configuration change.

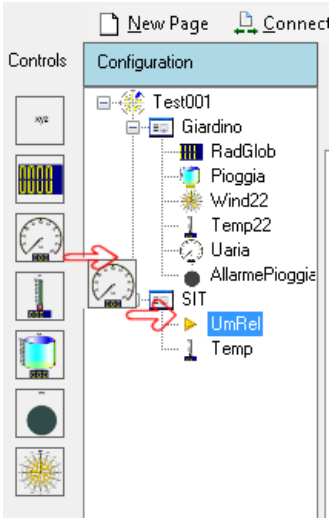
ATTENTION
Communications with XPanelCommunicator are stopped to allow the modification of the current configuration.



The left section of the window shows the different pages of the configuration and the various controls entered in each page; selecting an item displays its properties in the right section of the window.

Specifically:

- To add a new page, press the <*New Page*> button.
- To remove a page, select it from the list, enable the context menu by right-clicking with your mouse and select <*Remove*>.
- To rename the title of a selected page, select it from the list, enable the context menu by right-clicking with your mouse and select <*Rename* > or change the property *Title* in the property page.
- To change the property of a page, select it from the list and act on the property page displayed on the right of the window.
- To change or test the connection with the communicator, press <*Connection*>;
- To add a control to a page, drag it from the list of controls to the desired page;

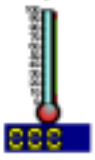
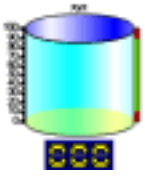


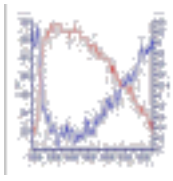
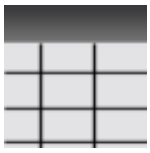
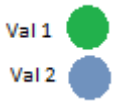
- To remove a control, select it from the list, enable the context menu by right-clicking with your mouse and select <*Remove*>.
- To rename a control, select it from the list, enable the context menu by right-clicking with your mouse and select <*Rename* >.
- To copy a control from a page to another, drag it into the new page;
- To change the property of a control, select it from the list and act on the property page displayed on the right of the window.

5.7.1. Available controls

The available controls for data display are the following:

- 

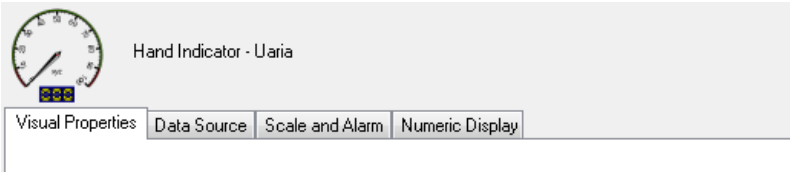
label value indicator
-  numeric indicator
-  hand indicator
-  thermometer indicator
-  recipient indicator

-  on/off status indicator
-  wind rose indicator
-  time chart control
-  table control
- 

label states indicator

5.7.2. Properties of controls

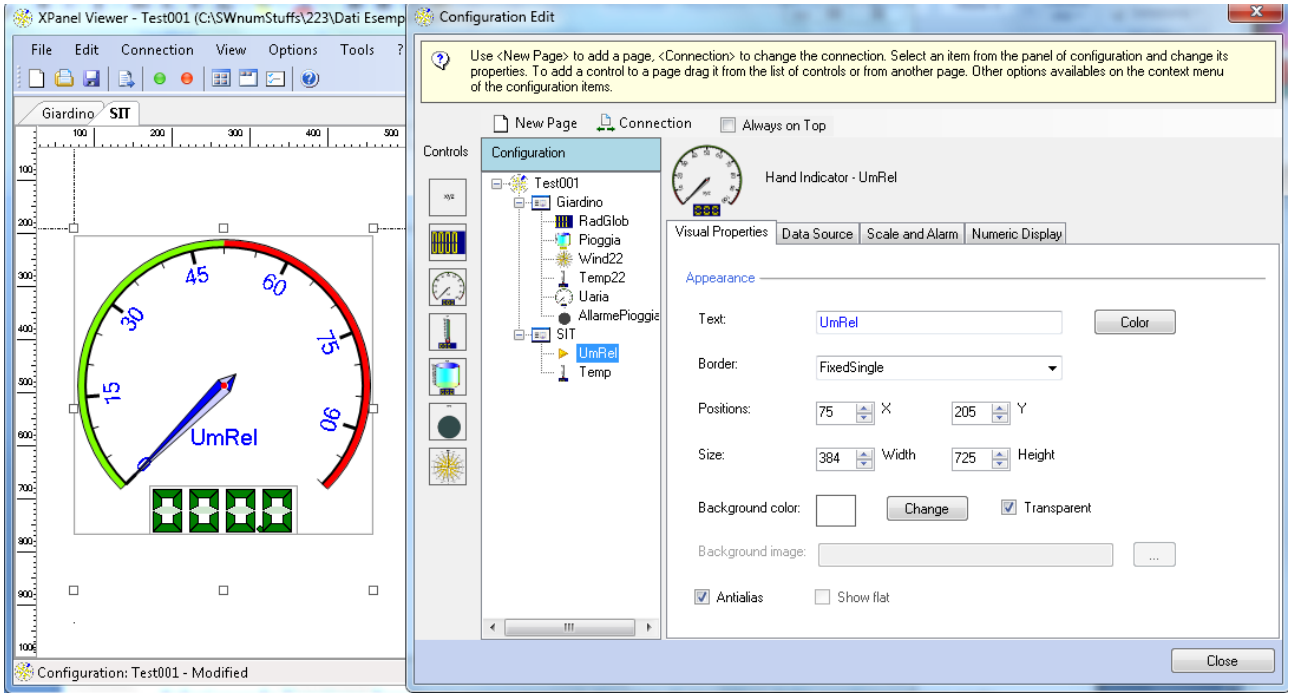
Selecting a control from a page, its properties are displayed at the right of the window. The property window is split in several tabs:



Property tabs:

- *Visual Properties*: controls the aspect-linked properties such as position, size, border, background, text;
- *Data Source*: assigns a data source to the control (that is, a device measurement) whose value is displayed by the control;
- *Scale and Alarm*: checks scale values and threshold values for the creation of alarms;
- *Numeric Display*: checks the format, the character number and the colors of the numeric indicator associated to the control;
- *Wind Rose*: this tab is available only for the wind rose control and includes specific options.
- *Image*: this tab is available only for the ON/OFF status control and indicates the control display modes.
- *Y1 left axis*: this tab is available only for the graphic control and sets the properties and the data sources of the chart primary axis;
- *Y2 right axis*: this tab is available only for the graphic control and sets the properties and the data sources of the chart secondary axis;
  Table: this tab is available only for the table control and sets the properties of the data sources for each line of the table.

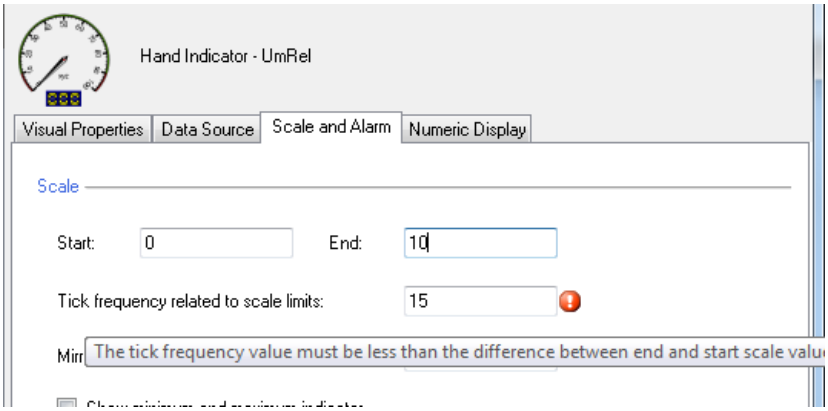
When assigning properties to the single controls, note that these properties may vary slightly from a control type to another.
Changing control properties has real-time effects on the page display; selecting a control on the modification window automatically selects the corresponding control on the page and vice-versa. In modification mode, pages show two rulers, a vertical one and an horizontal one, which allow a better positioning of controls (§ 5.7.2.3):



Selecting the <*Always On Top*> option, the configuration modification window remains always in evidence with respect to *XPanelViewer* pages.

5.7.2.1. Errors during data entry

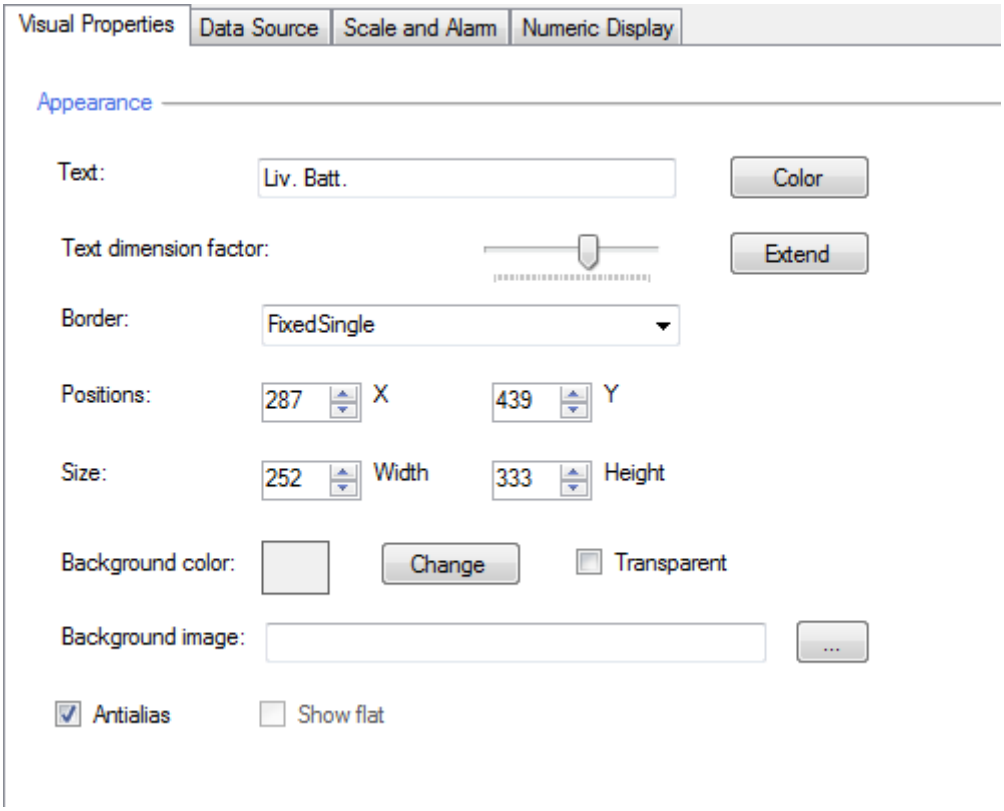
If incorrect data are entered when changing the property data of a control, the program indicates the error with a symbol:



Placing the mouse pointer on the error signal displays a brief description.

5.7.2.2. Visual Properties tab

Visual Properties tab checks the visual properties of the control:



Specifically:

- *Text* shown on the indicator (*Color* button selects text color)
- *Text dimension factor* specifies the size factor of the text in relation to the width of the control
- *Border* applied to the control
- *Positions and Size* (see § 5.7.2.3)
- *Background color* (*Transparent* = transparent background) or background image (if available)
- *Antialias* if set, improves the indicator graphic definition, however to the detriment of performance (visualization is slightly slower)

The Aspect tab of the graphic control includes the following additional properties as well:

- *Time width of the graph data* represents the amplitude of the graph on X axis: as new data arrive, the data preceding this time interval are discarded (the maximum accepted value is 6 days, 23 hours and 59 minutes);
- *Show X-axis grid:* if selected, displays the scale lines of X time axis;
- *Show legend:* if selected, displays the legend

Text dimension factor
The text dimension factor specifies the size factor of the text in relation to the width of the control. The effect of the change of this value is immediately displayed on the screen. This value does not match the usual font size because the actual size of the text is redefined when you resize the control or when you resize the page so as to maintain the proportionality between text and control width. The button Extend sets the same relative size to the texts of all configuration controls in the page so that all the texts are of the same size regardless of the size of each control.

In the Table control the text dimension factor sets the size of the title text of the table. The size of the rows text of the table are set proportionally to respect to the title size.

5.7.2.3. Position and size of controls on the page

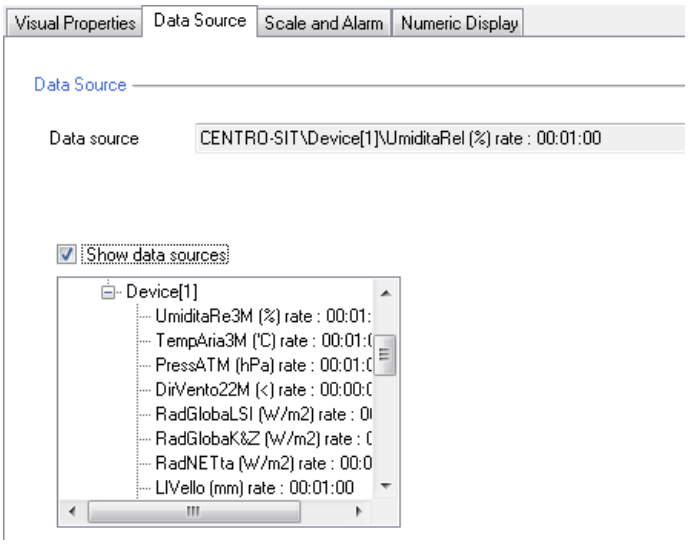
The position of each indicator is defined by placing the top-left corner of each object on a X-Y grid, as per the example grid below:

Y=0	X=0 Y=0	X=100 Y=0	X=200 Y=0	X=300 Y=0	X=400 Y=0	X=500 Y=0	X=600 Y=0	X=700 Y=0	X=800 Y=0	X=900 Y=0
100										
200	Y=200 X=0	Y=200 X=100	Y=200 X=200	Y=200 X=300	Y=200 X=400	Y=200 X=500	Y=200 X=600	Y=200 X=700	Y=200 X=800	Y=200 X=900
300										
400	Y=400 X=0	Y=400 X=100	Y=400 X=200	Y=400 X=300	Y=400 X=400	Y=400 X=500	Y=400 X=600	Y=400 X=700	Y=400 X=800	Y=400 X=900
500										
600	Y=600 X=0	Y=600 X=100	Y=600 X=200	Y=600 X=300	Y=600 X=400	Y=600 X=500	Y=600 X=600	Y=600 X=700	Y=600 X=800	Y=600 X=900
700										
800	Y=800 X=0	Y=800 X=100	Y=800 X=200	Y=800 X=300	Y=800 X=400	Y=800 X=500	Y=800 X=600	Y=800 X=700	Y=800 X=800	Y=800 X=900
Y=900	Y=900 X=0	Y=900 X=100	Y=900 X=200	Y=900 X=300	Y=900 X=400	Y=900 X=500	Y=900 X=600	Y=900 X=700	Y=900 X=800	Y=900 X=900
	X=0	100	200	300	400	500	600	700	800	X=900

It is possible to define X-Y positions with resolution to the unit (ex. X=320, Y=456). X and Y maximum extension corresponds to 1000 value, no matter what the resolution of the used screen is. E' possibile definire posizioni X-Y con risoluzione all'unità (es. X=320, Y=456). L'estensione massima di X e Y corrisponde al valore 1000, qualsiasi sia la risoluzione dello schermo utilizzato
Changing the values of position and size in the modification window, the control displayed in the page changes its position and size in real time; similarly, you can select a control in a page with your mouse and drag it using the two rulers as a reference: moving or resizing a control by means of the mouse will automatically update the corresponding properties in the modification window.

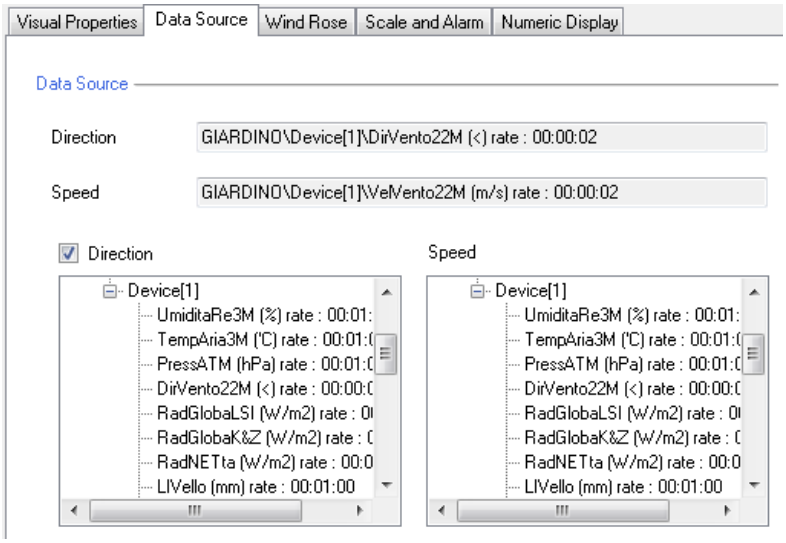
5.7.2.4. Data Source tab

Data Source tab assigns the associated data source to the control, except for the graphic control, were data sources are associated in *Y1 left axis* and *Y2 right axis* tabs, and except for the table control where data sources are associated in the *Table* tab:



In order to assign/change data sources, communication with *XPanelCommunicator* should be enabled; if enabled, select *Show data source* checkbox to display the data source list and select both *Device* and *Measurement* for their association to the control.

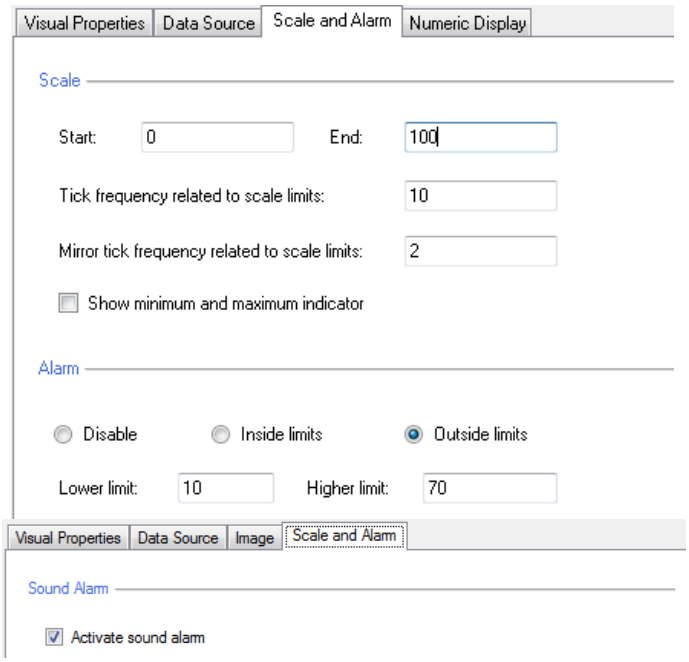
Wind Rose control has two data sources, one for the direction and one for the wind speed:



Label value indicator is the only control that may not have a data source associated. In this case no warning message are shown

5.7.2.5. Scale and Alarms tab

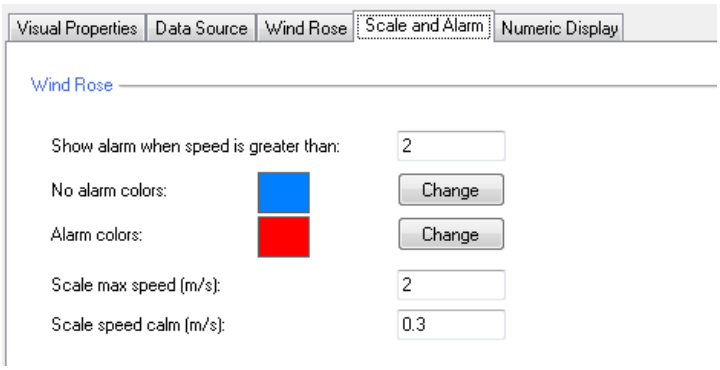
Scale and Alarms tab checks the control scale, alarm thresholds and the activation of alarm sound:



Hand Indicator, Thermometer and Recipient indicators

When setting numerical limits for alarms, the program assigns a different color (green or red) to the indicator scale. When the measured value is associated to the red color, the digital value of the quantity starts blinking, indicating an exceeded value. The set limit determines the alarm status when the quantity value exceeds that limit.

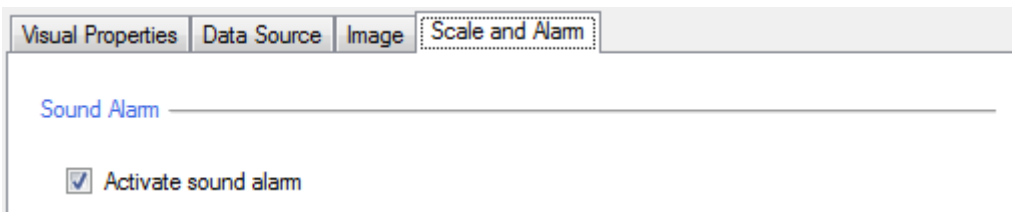
Wind Rose Indicator



Select *Show alarm when speed is greater than* in m/s ; once this value is exceeded, the arrow indicating the wind speed turns the color indicated in the *Alarm colors* box;

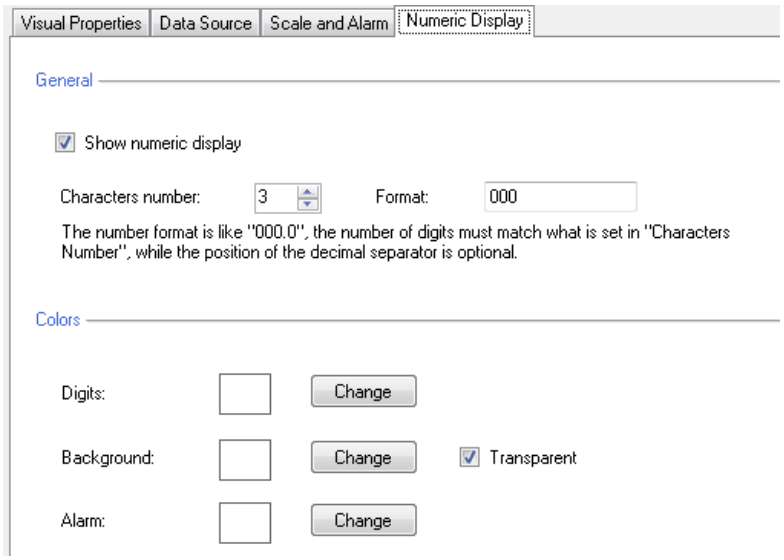
On/Off Status Indicator

When selecting Activate sound alarm every time the data source of the control raises an error event on an alarm state the program will sound. This sound will stop only when the user acts directly to stop it (§ 5.8)



5.7.2.6. Numeric Display tab

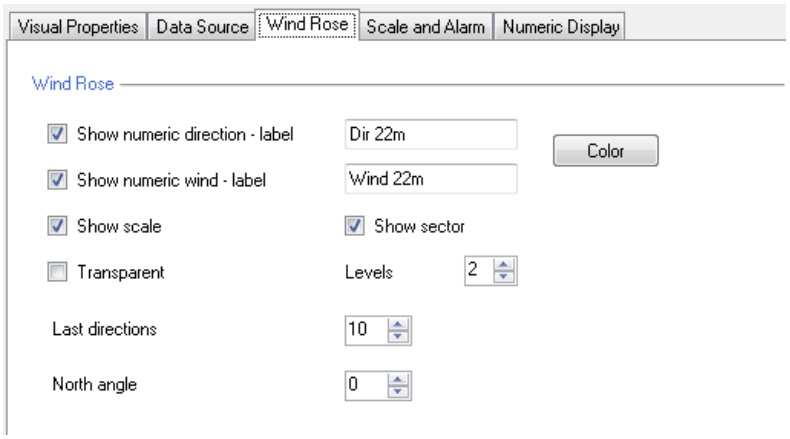
Numeric Display tab checks the format of the numerical indicator associated to the control:



Specifically, set the number format to determine the position of the decimal separator, expressed as "000.0"; the number of digits should correspond to the value set in *Characters number*, while the position of the decimal separator is optional.

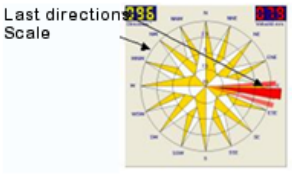
5.7.2.7. Wind Rose tab

Wind Rose tab is available only for the *Wind Rose* control:

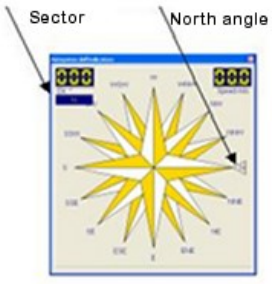


Specifically, the selection of (1,2,3) levels changes the control aspect as follows:

Displaying the last n directions and the scale changes the control aspect as follows:

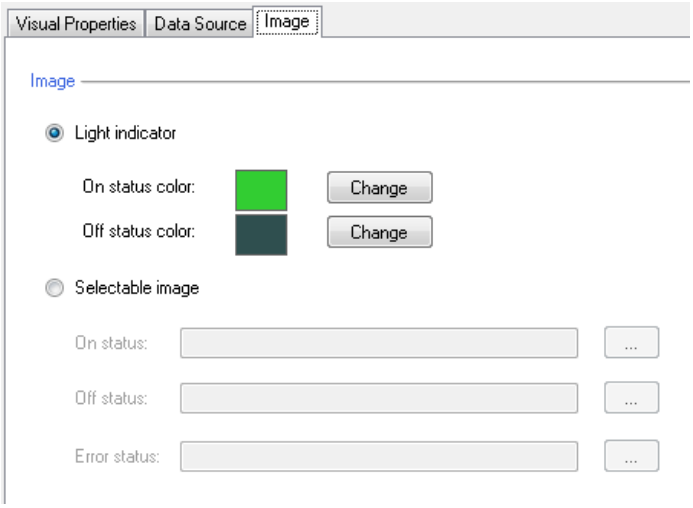


Selecting North angle and displaying the sector changes the control aspect as follows:



5.7.2.8. Image tab (On/Off Status indicator)

This tab controls the display mode of the ON/OFF Status indicator:



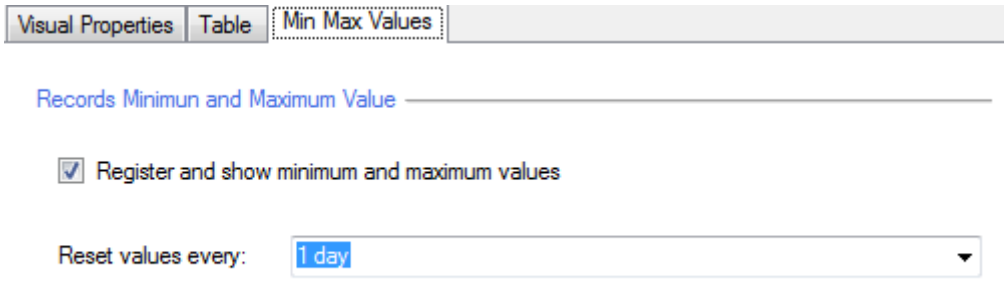
The status display can be set in two different ways:

- *Light indicator*: in this case, it is sufficient to specify the indicator color for the *ON* or *OFF* status; in case of error, the indicator is highlighted with a red cross.
- *Selectable image*: an image corresponding to the three status conditions is selected: ON, OFF, ERROR. There is no alarm warning on the status indicator.

We call to mind that the status control is OFF when its value is 0 and it is ON when its value is other than 0.

5.7.2.9. Min Max Values tab

This tab controls the recording mode of the minimum and maximum values:



- Select *Register and show minimum and maximum values* to activate the recording of the minimum and maximum values;
- Select an option from the list to reset recorded values.

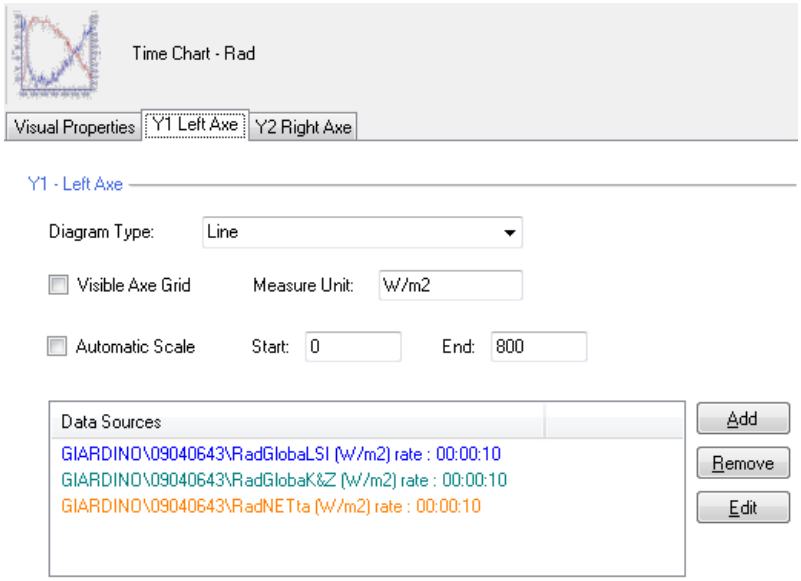
The options to reset recorded values are:

- One minute
- Ten minutes
- One hour
- Three hours
- Six hours
- Twelve hours
- One day
- Ten days
- One month

Please note that by choosing for example *three hours*, the statistics are reset at 0, 3, 6, 9, 12, 15, 18, 21, similarly to the other selections. The selection *ten days* must be understood on a monthly basis and then resets the statistics at the beginning of the month, and at days 10 and 20.

5.7.2.10. Graphic control tab of Y1 Left Axis and Y2 Right Axis

These two tabs can be viewed only through the graphic control; they supervise the aspect and the configuration of vertical axes; the primary axis is Y1 axis (left axis in the chart):

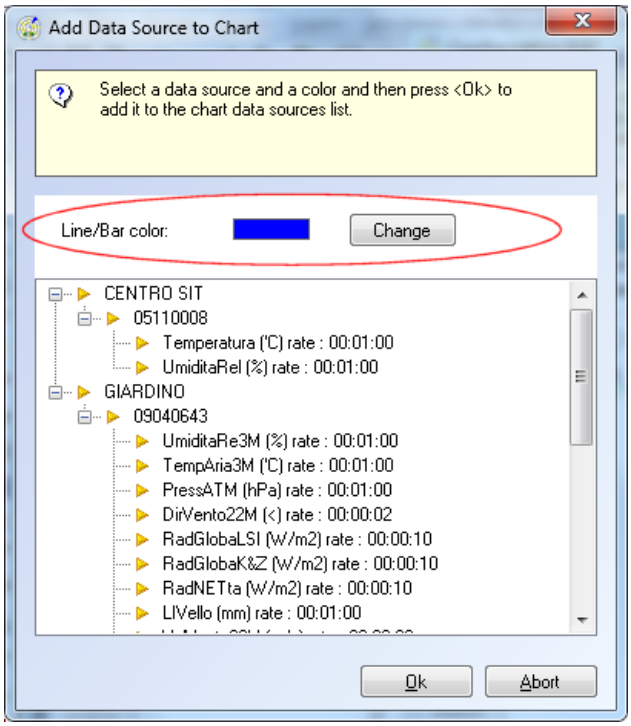


Specifically, the following can be set:

- Type of chart (line chart or bar chart);

- Grid visibility and measurement unit that is displayed as the axis tag;
  the scale can be automatic, in other words set based on the effectively available data, or manual;
- Data sources.

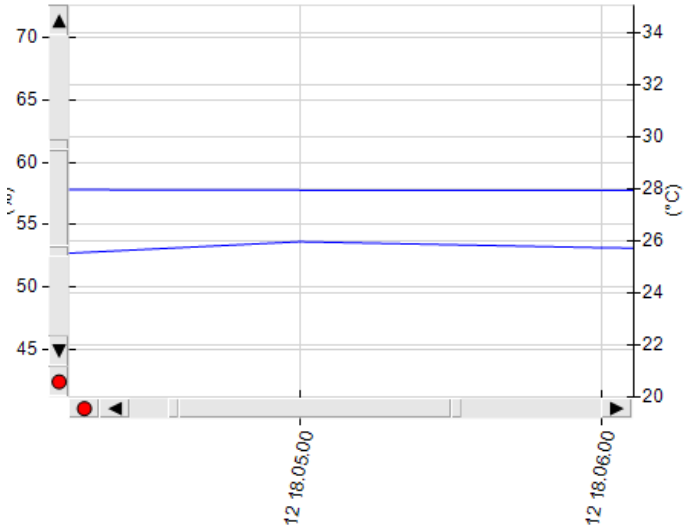
The secondary Y axis (Y2) is disabled by default: to enable it, select Enable *Y2 right axis* in the *Y2 Right Axis* tab.
Each axis can be associated to several data sources (sources having the same measuring units are obviously recommended); to add a data source, select <*Add*>, press <*Remove*> or <*Edit*> buttons to remove or change a data source after selecting it from the list.
The data source list allows to set also the color of the chart associated to that source:



ATTENTION:
If a bar chart with several sources is selected, note that bars are drawn in the same position starting from the first data source. If, for instance, there are two data sources (S1 and S2) that - at a certain point - assume V1 and V2 values with V1>V2, the bar of the second series will not be visible. The use of a single data source is recommended with bar charts.

5.7.2.11. Interactivity graphic control

Using your mouse, you can zoom and scroll the data included in the graphic control. To zoom, left-click on the start point and drag your selection to the end point before releasing the mouse. The zoom function acts both horizontally and vertically always using the primary Y axis (Y1). When the chart is in zoom mode, the scrollbars are displayed:

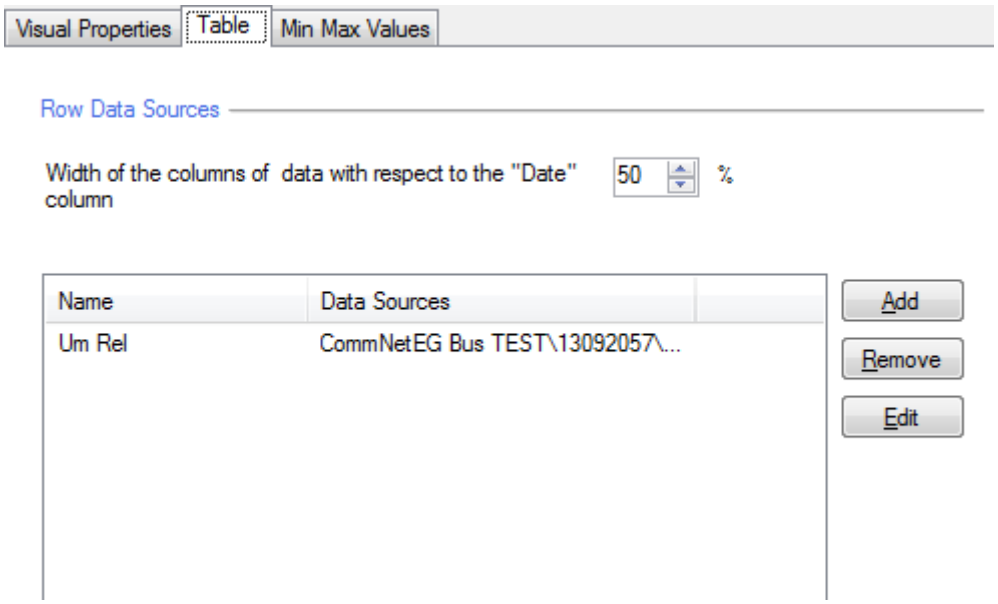


Act on the scroll bars to:

- Scroll the selection by dragging the scroll bar
- Enlarge/reduce the zoom area by acting on the scroll bar
- Remove the zoom by clicking on the buttons

5.7.2.12. Table control and Table tab

This tab can be viewed only for the Table control and allows to specify the data sources associated to each table line:

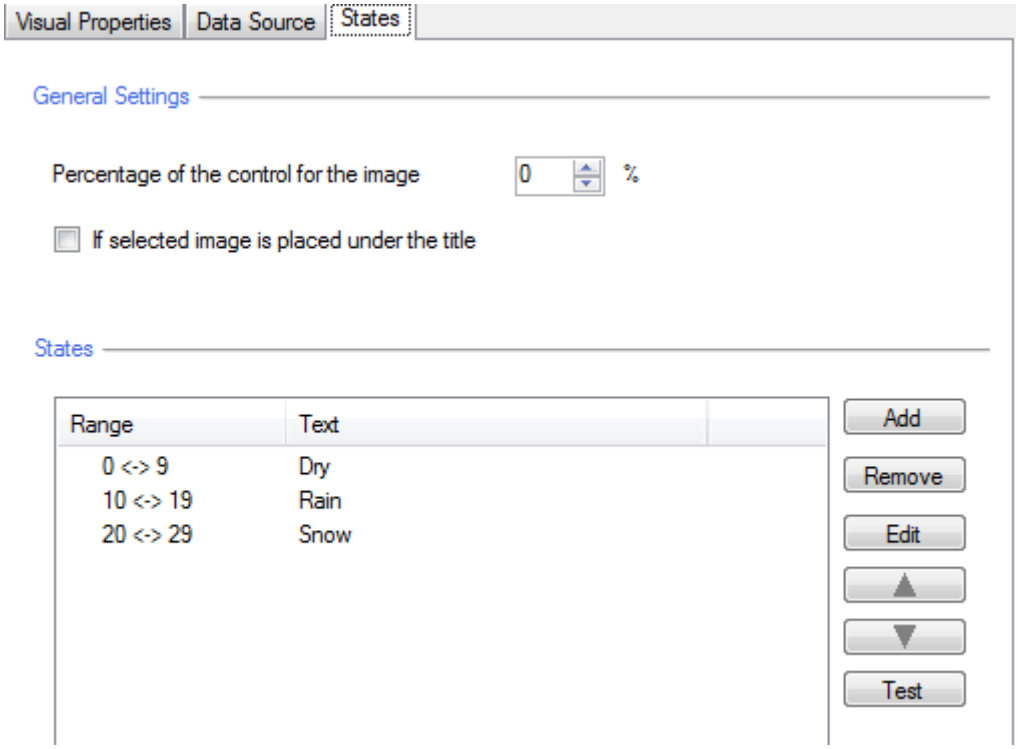


The parameter *Width of the column of data with respect to the Date column* sets the width of the columns of data in percentage to the width of date column. The real size of the columns depends on the width of the control since the table occupies the entire width of the control.
In this tab, use <*Add*>, <*Remove*> and <*Edit*> buttons to add, remove or change the table lines.
Specifically, pressing <*Add*> or <*Edit*> opens the window showing all the available data sources: enter a name for the heading of the table line and a data source.

The *Table* control supports the *Min Max Values* tab (§ 5.7.2.9): if you select to record the min and max values, the table will show two other columns of data.

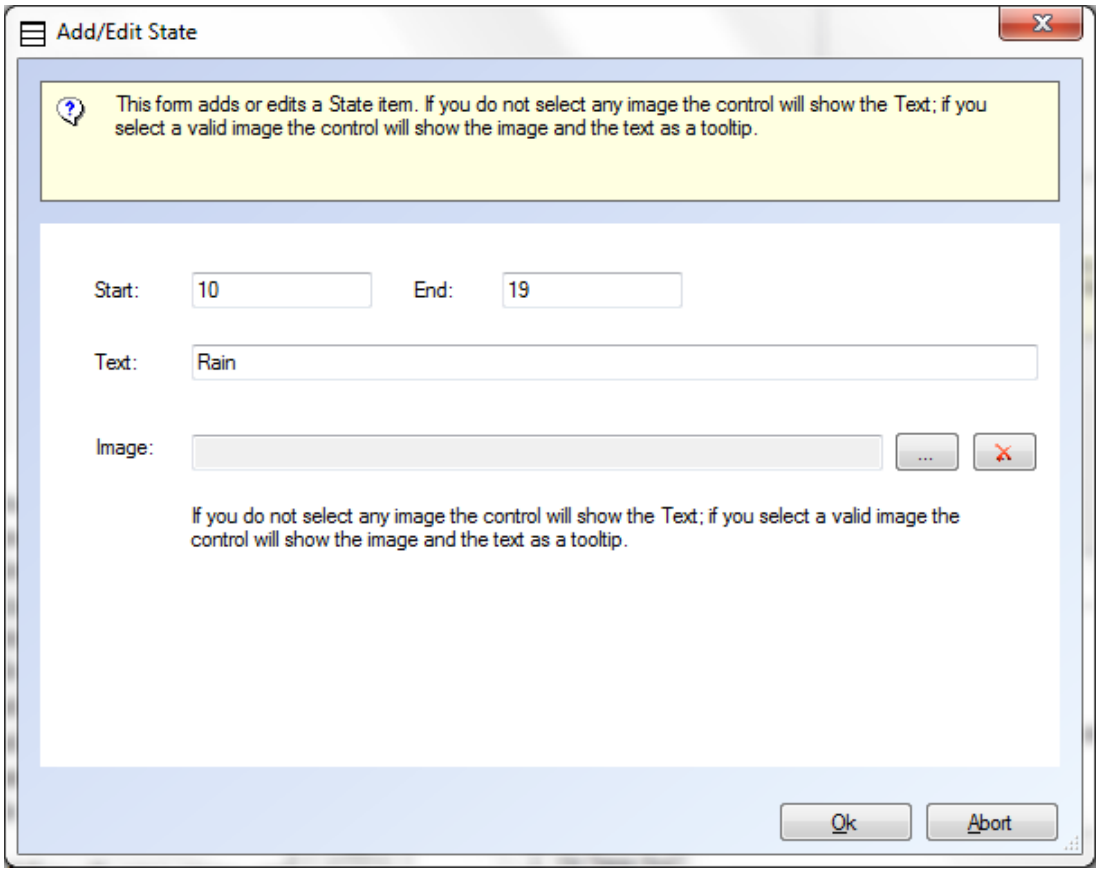
5.7.2.13. States Tab

This tab controls the states of the new *Label States Indicator*:



- *Percentage of the control for the image:* if states are associated to images this value sets the part of the control devoted to show the image; the image size will be stretched to the control size;
- *If selected image is placed under the title:* if the states are associated to images check this control box to show the image under the title; in this case the previous parameter refers to the vertical dimension, otherwise it refers to the horizontal dimension.
- The *Add*, *Remove*, *Edit* buttons change the values of the states.
- The buttons with the vertical and horizontal arrows change states order in the list
- The *Test* button sets the selected range value to the control on the page to show the real effect of the control.

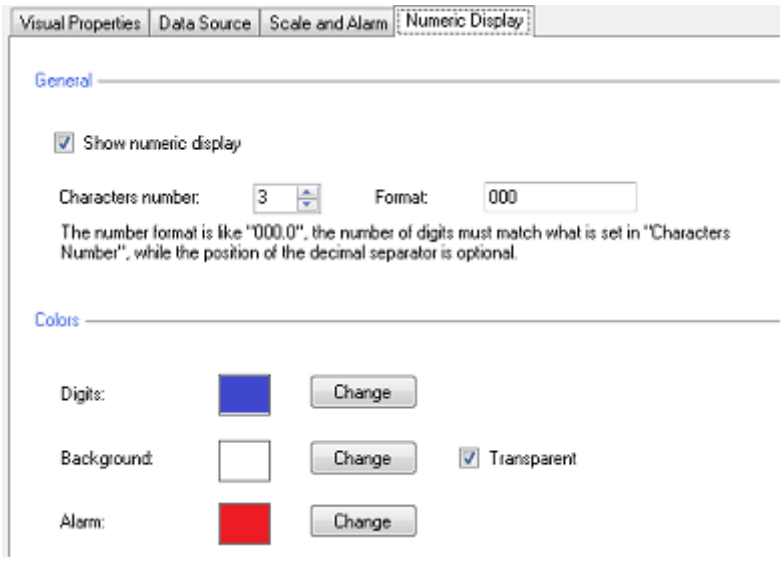
The *Add* and the *Edit* buttons show the form to set state characteristics:



Each state is characterized by a range of values (for integer states use the same value as the *Start* and the *End*), a text and an image optional. If the image is not set the control will display the corresponding text attached to the title, otherwise the control will display the image using the settings described above: in this case the text will be indicated by the tooltip on the control.
Please note that the verification of the status values is made from the first level and including the extremes.

5.7.3. Message of Data error or Not updated data

When *XPanelCommunicator* stops communications or sends data errors, controls display *Err*; to make the value blink, set a color different from that normally used to represent the data for the *Alarm* value in the *Numeric Display* section:



The graphic control doesn't show this condition, but it will not assign any new data.

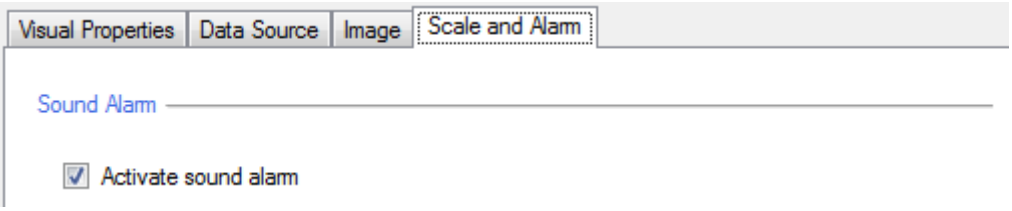
5.7.4. Closing and saving

When a configuration modification window is closed, the program checks that there are no errors and that all controls are associated to a valid data source, otherwise it informs that it's up to the user to decide if to continue or not to save data.

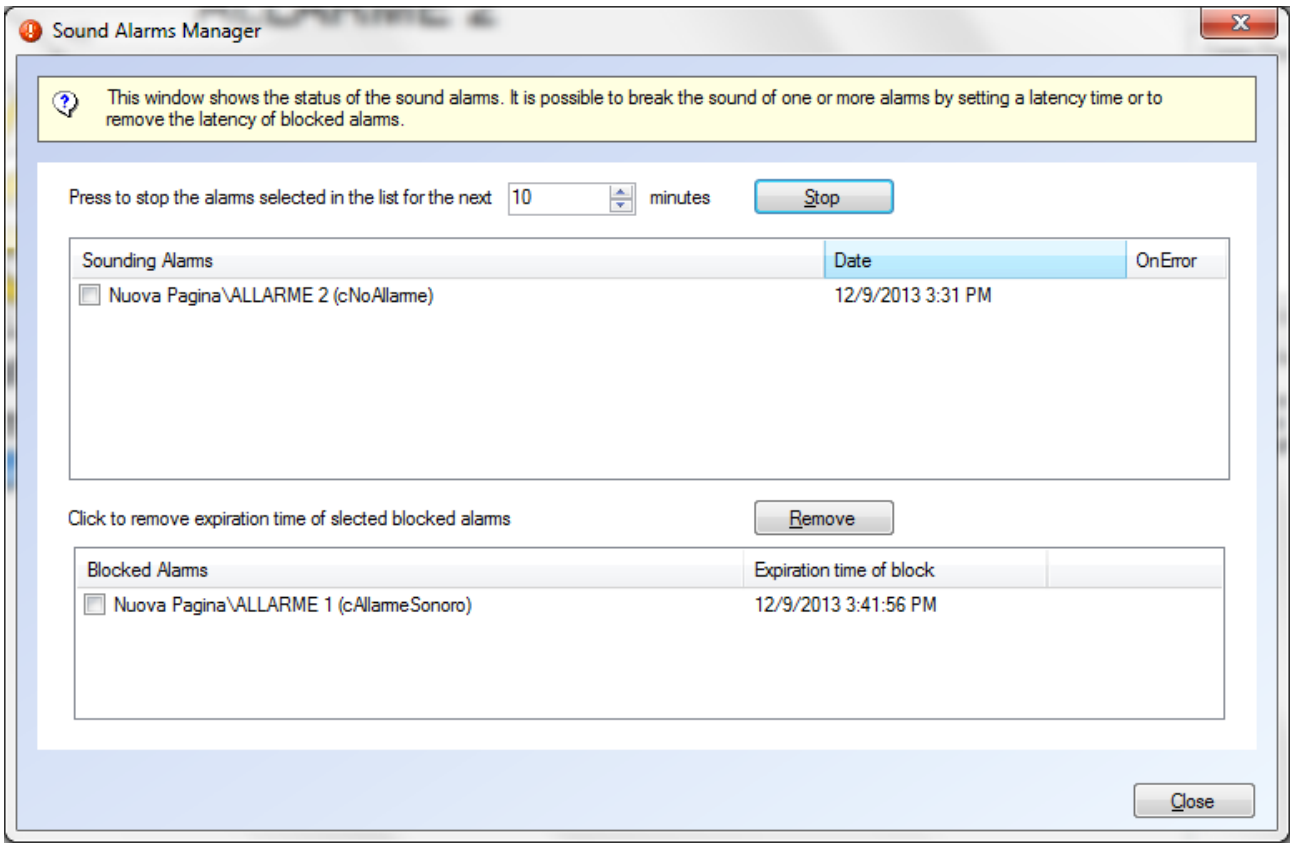
If the configuration has been changed, it is reloaded and the connection with *XPanelCommunicator* re-established, even if the user cancels the changes.

5.8. Management of Alarm Sound

The *Sound Alarm* tab allows you to activate the sound alarm for controls that support this feature, in version 1.3 the only enabled control to manage the sound alarm is the *on / off state* one.



If you activate the sound alarm, whenever the data source associated with the control detects an alarm condition or an error the program emits a sound that only ends when the user acts directly to deactivate it.



This window displays at the top the indicators list with a sound alarm in progress and at the bottom the one whose sound alarm has been stopped.

To stop the alarm sound, select the check box of the indicators in the Sounding Alarms list, set the time of suspension and press the button <*Stop*>. Automatically these indicators are moved in the Blocked Alarms list.

To unlock the alarm sound, select the check box of the indicators in the Blocked Alarms list and press <*Remove*>. If the associated data is still in error or in alarm, the sound alarm restarts to play and the indicator are moved in the Sounding Alarms list.

WARNING
Please note that the sound continues until the user removes every indicator in the sounding alarms list.

This window is activated every time the program activates a sound alarm, or if the user select the menu *Tools → Show Sound Alarm Manager.* The menu *Tools → Reset Sound Alarms* stops all sounding alarms and cancels the time of suspension of all indicators already stopped.

The program records in a log file (§ 5.9.1) all changes of the status of the indicators for which the sound alarm is activated and all the actions of recognition made by the user.

5.9. Log file

Log file management parameters are in the *NLog.config* file included in the installation folder of the program executable.

Log files are stored in the folder:

```
{CommonApplicationData}\LSI-Lastem\XPanelCommunicator\Log
```

Where `{CommonApplicationData}` corresponds to:

- `C:\ProgramData\` in Windows Vista and Windows 7
- `C:\Documents and Settings\All Users\Application data` in Windows XP

To change the level of the elements included in the log file, change the *minlevel* value of the two lines of the configuration file:

```
<logger name="*" minlevel="Info" writeTo="mainForm2"/>
<logger name="*" minlevel="Trace" writeTo="file"/>
```

The admitted values are in the order:

- *Fatal,*
- *Error,*
- *Warn,*
- *Info,*
- *Debug*
- *Trace*

It is recommended not to set a level lower than *Info*; the recommended value is *Warn*.

The program records a log file every day. Log file name is *logyyyy-mm-dd.txt* where yyyy-mm-dd represents the current date.

5.9.1. Log file of sound alarms

Sound alarm log file name is *AlarmLogyyyy-mm-dd.txt* where yyyy-mm-dd represents the current date.

5.10. Program internal configuration file

The program configuration file is named *XPanelViewer.exe.config* and is included in the program installation folder. It is a *xml*-format file containing some application operation settings; specifically, the program operation can be forced to run with a language different from the default one by changing the value of *UserDefinedCulture* property:

```
<setting name="UserDefinedCulture" serializeAs="String">
    <value></value>
</setting>
```

To force the use of the English language on a computer set in Italian, enter `<value>en-us</value>`; enter `<value>it-it</value>` to force the Italian language on a computer set with a different language; other localizations are not available.

6. Auto Updates

Use menu *?* → *Check for updates* to run the *LSI Update Center* program, which checks 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 be directly installed by the CD of LSI LASTEM products or from the license files CD, or by downloading the installation file from the FTP site of LSI LASTEM. The *LSI Support Center* includes also the component which manages the licenses of the programs installed on the local computer (§4.10).

6.1.1. Program installation from the FTP site

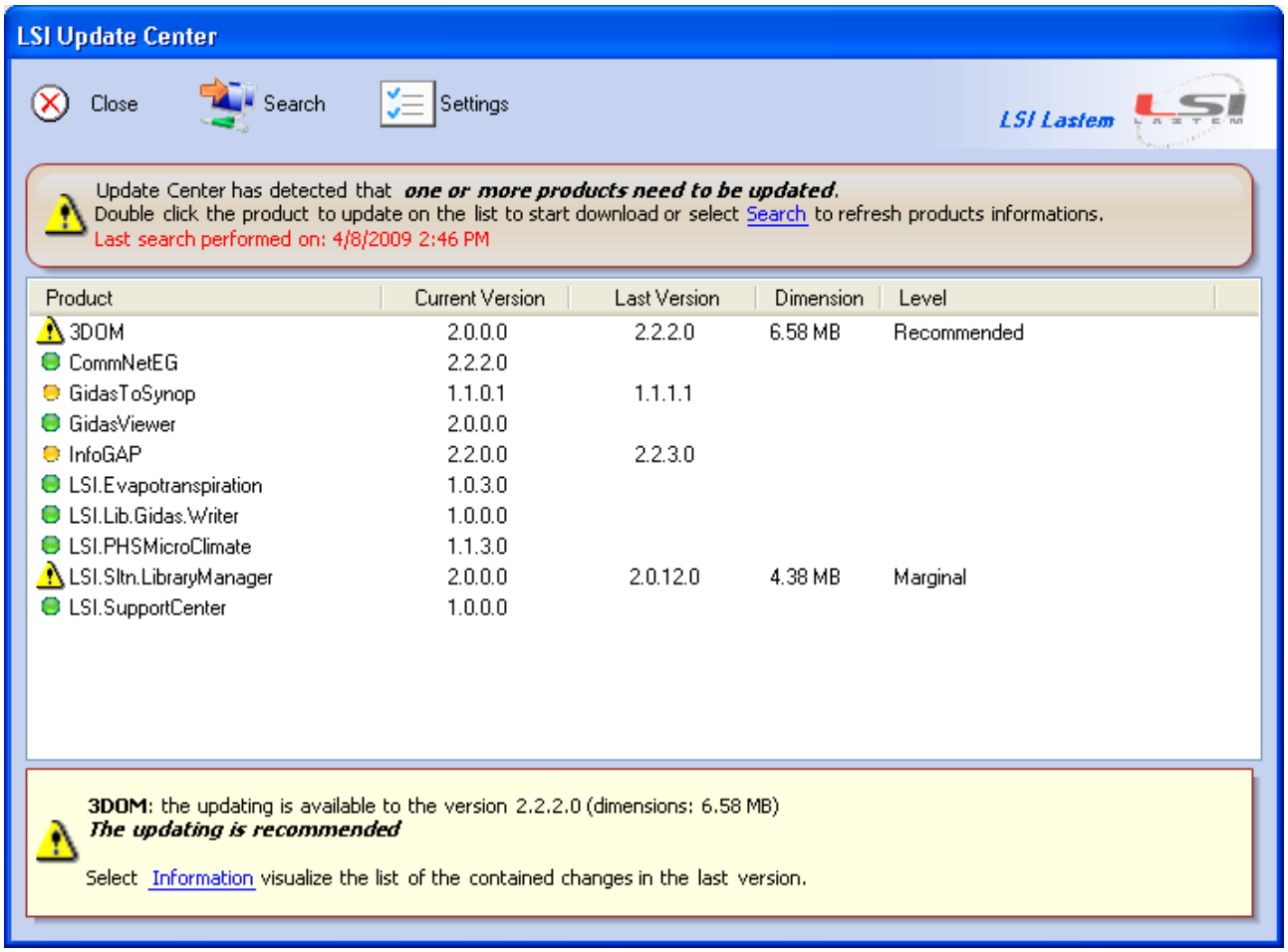
If *LSI Update Center* program is not installed on the local computer, you can download the installation file from the LSI LASTEM FTP site. At the end of the download, the installation will automatically be started; at the end of the installation, the program will be started.

6.1.2. Using the program

The *LSI Update Center* program consists in two modules:

- *LSI Update Center Monitor* program that is automatically started with the operating system and periodically checks for the availability of updates for all the LSI LASTEM programs installed in the computer.
- *LSI Update Center* program showing the state of the available updates and downloads, if necessary, the installation files from LSI LASTEM web site and starts the update installation.

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



The installed current version and the last available version are displayed for each program. A program can be in one of these conditions:

- updated;
- not updatable: a new version exists but the product is not updatable;
- updatable: double click the product to be updated on the list to start downloading the installation file.

Selecting *Information* displays a web page containing the list of the changes of all the versions of the selected program.

Pressing *Search* starts the search for updates, while pressing *Settings* changes the connection properties, if a proxy is used, along with the time interval used by the monitor for the update automatic search.

Keep in mind that when this program is started through Windows *Start* → *Programs* menu or from the monitor context menu, the program displays the results of the last automatic search performed by the automatic monitor displaying the search date. To update data press the *Search* button.