Televis**Go**

The expandable Supervisor with IEC 61131 applications

Televis**Go** is a family of devices to monitor, control and manage commercial refrigeration installations from a distance.

INSTRUCTION MANUAL

CONTENTS

1. USING THE MANUAL

For quick, easy reference, the manual has been designed with the following features:

WARNING!: highlights information that users must be aware of to prevent any damage to the system or hazards for people, devices, data, etc. Users MUST read and take note of these sections.

INDICATION/HIGHLIGHTED TEXT: further information on the topic in question that the user should be aware of

SUGGESTION: a suggestion that could help the user understand and make better use of the information provided.

NOTE: To access some screens and view their contents, stop the data acquisition using the **Edit** button.

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2. INTRODUCTION

2.1 GENERAL DESCRIPTION

Televis**Go** is a range of monitoring, control and remote control devices for commercial refrigeration and air-conditioning installations.

It features a web-based remote user interface that can be configured from any PC with an internet connection.

Televis**Go** records data, manages alarms and provides remote access to network and controller data to easily monitor HACCP data and schedule maintenance activities.

It has the following connectivity systems:

- Ethernet communication interface (internal)
- GSM modem (external – see section entitled "**Compatibility**").
- USB ports

Televis**Go** also offers remote WEB-based access (see section entitled "**Compatibility**") without having to install any extra software. The user interface supports 10 native languages (Italian, English, Spanish, German, French, Russian, Dutch, Polish, Portuguese and Chinese) although additional languages can be easily installed later.

Televis**Go** is a long-lasting, open platform that can be upgraded with new functions and data exchange capabilities with centralized systems. It is the ideal solution for industrial refrigeration and air-conditioning applications. Up to 224 controllers and 3000 resources can be run on one license.

Televis**Go** is intuitive and easy to use, and quick to install and understand.

It has an advanced user interface that can be accessed via web browser from a standard personal computer, in order to analyse data and control all functions of the plant.

As Administrator, all aspects of the system can be integrally controlled via remote access (see "Disclaimer and PC Configuration").

2.2 FEATURES/MODELS

2.2.1 INTERFACE

Televis**Go** has an advanced user interface that can be accessed via web browser (*****) from any personal computer, in order to analyse data and control all functions of the plant.

(*****) A browser is a programme used to navigate web sites; it is normally included with the Operating System (Windows, Linux, Mac ...) or can be downloaded and installed free.

2.2.2 SPECIFICATIONS AND REGULATORY FRAMEWORK

The main <u>technical features</u> of Televis**Go** are listed below:

- Power supply: **12 Vdc** with external power supply **100 ... 240 Vac ±10%, 50-60 Hz**
- Max. power absorbed: **10 VA**
- Ambient operating temperature: **0 ... 50°C**
- Storage temperature: **-20 ... 60°C**
- Operating/storage humidity: **10...90%** (non condensing)
- Maximum number of devices connected: **224**
- Operating system (depends on the model): - **Windows XP Embedded** (English) or
  - **Windows 7 Embedded** Standard (English)

 (the license number card is inside the packaging)

- Connections: Ethernet (LAN), external GSM modem (see section entitled "**Compatibility**") and built-in USB ports.
- Web-based user interface to configure and control local applications from a distance.
- Remote software update (via internet).
- **Less energy intensive** thanks to the use of high-performance components which significantly boost power output and lower consumption
- **Recyclable** - integrally recyclable materials used (packaging, manuals, etc.)

2.2.3 REGULATIONS

The main <u>regulations/directives</u> which Televis**Go** complies with are listed below:

- UNI EN 12830:2001 (HACCP)
- Directive 2002/95/EC (RoHS Directive)

Compatibility with EN12830 standard

Televis**Go** logs temperatures in accordance with the provisions of EN12830 in the following conditions:

- Network devices: Use only class II rated devices (Eliwell)
- Log temperatures using Televis network resources with Eliwell NTC probes

To guarantee compliance with standard EN12830, select registrations for analogue probes **ONLY**.

A year's worth of registrations is guaranteed for 1500 analogue resources, at registration intervals of 15 minutes.

The selection of non-analogue resources may affect archiving performance in terms of variations in the time asynchronous resources have within the network. In this case, refer to the GUI Web archive management section to check the storage capacity of your own plant and to set the parameters accordingly, to assure they meet the criteria specified by standard EN12830.

Application information sheet

a) **Type of registration**:
   Suited for storage

b) **General requirements**:
   - **Measurement range**: Network devices: use only class II rated devices (Eliwell)
   - **Supply voltage and frequency**: 12 Vdc with power supply 100 ... 240 Vdc ±10 % a 50-60 Hz ±3 Hz
   - **Power failures**: Non-volatile internal memory, duration 10 years

c) **Requirements for metrological characteristics**:
   - **Maximum permissible errors, temperature measurement resolution and error**:
     For network devices: depends on the devices
   - **Registration interval**: configurable (default 15 minutes).
   - **Registration time**: 1 year's worth of data guaranteed for 1500 analogue resources, at registration intervals of 15 minutes
   - **Maximum relative weather measurement error and weather recording error**: <0.1 %
   - **Response time**: <30' with Eliwell controllers and Eliwell NTC probes
   - **Climate and influence of ambient temperature**: 'type A' in air
   - **Climate and temperature testing under logger storage and transportation conditions:**
     type A' in air
   - **Electrical disturbances and radiated electromagnetic field susceptibility**: conforms to EN55022 and EN55024.

2.2.4 LANGUAGES SUPPORTED

The software features the following native languages:

- Italian
- English
- Spanish
- German
- French
- Russian
- Dutch
- Polish
- Portuguese
- Chinese

On request and where accepted by Eliwell, other languages may also be available.
These languages can be installed later.

2.3 COMPATIBILITY

2.3.1 BROWSERS SUPPORTED

Televis**Go** is compatible with the following browsers:
- Internet Explorer 7 or later

> **NOTE:** To display Televis**Go** web pages in Internet Explorer, click "Compatibility View settings" on the Tools menu and add the address of the Televis**Go** website.

- Mozilla Firefox 3.5 or later
- Google Chrome 16.0.x or later

To speed up navigation:
To make WEB navigation faster and more effective, we recommend:

1. Enabling the browser cache. This means pictures don't have to be reloaded at each connection, making navigation quicker and more responsive.

> **CAUTION!**
> **Incorrect configuration of the cache could lead to pages not being refreshed properly!**

The following settings are recommended:

- Microsoft Internet Explorer:
  - Tools Window → Internet Options → General → Browsing History → Settings
  - Check for newer versions of stored pages should be set to "Auto".
- Mozilla Firefox:
  - Tools window → Options → Advanced → Network
  - "Override automatic cache management" must NOT be selected.

> **NOTE: Clear the cache every time the application has been updated**.

2. Use a browser that shows even partially loaded data before the whole page loads, which makes navigation quicker and more responsive. For networks with over 700 resources, we recommend using browsers with more efficient JavaScript engines, such as Firefox 3.5 or IE8 or later. This speeds up the introduction of, and user interaction on, pages containing the network hierarchy (e.g. Archived data selection / Naming / Network Summary / Offline).

2.3.2 TYPES OF NETWORKS THAT CAN BE MONITORED

Televis**Go** has been approved for the following networks:

- "**RS-485**" networks and gateways using the SerialAdapter232 module (accessory can be purchased separately).
- "**LAN**" networks using the TCP/IP and gateways using the LAN Adapter module (accessory can be purchased separately).

NOTE: Eliwell guarantees the correct operations of networks using maximum of 10 LAN Adapters.

Examples of usable networks are given below:

| 1) Example of RS-485 network | 2) Example of TCP/IP network |
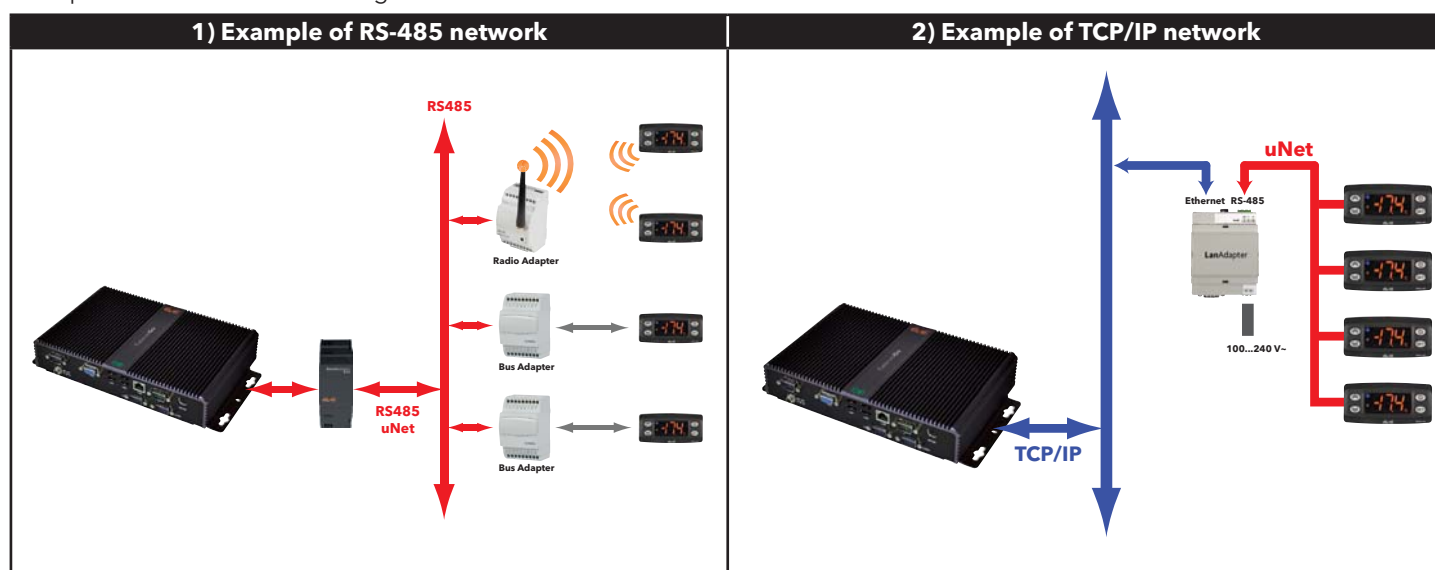
NOTE:
1. Signal propagation in a TCP/IP (Ethernet) network depends on bus traffic, which can make access times to the LanAdapter non-deterministic and influence access times to the RS485 sub-net.
2. The **Serial** Adapter 232 adapter can only be connected to **COM1** or **COM2** as it is supplied by them. Other serial accessories (modems) must be connected to serials **COM3** or **COM4**.

2.3.3 COMPATIBLE MODEMS

Televis**Go** is compatible with RS232-interface GSM modems:

- powered by SIEMENS TC35-type technology.
- "four faith F1103" model (eliwell p/n SAMGPRS35AL00 description MODEM GSM/GPRS W/ANT PSU)

The GSM modem connection can be done directly via RS232:

NOTE: To work correctly the Modem SIM card PIN code must be disabled.

2.3.4 RANGE OF DEVICES SUPPORTED

Device families compatible with Televis**Go** are listed in the file "**TelevisGo_DriverList.pdf**" present in Televis**Go** in the directory "**C:\Eliwell\Manuals**" accessible from a desktop link and in the website **www.eliwell.com**.

2.4 DISCLAIMER AND PC SETTINGS

Users should be aware of the following:

- The default time zone is GMT+1.

- The default Administrator (**Administrator**) password is 0 (**zero**); users must enter a password to assure safe and restricted system access.

⚠️ **CAUTION!! THE USER MUST STORE AND REMEMBER THE ENTERED PASSWORD; ELIWELL IS NOT IN ANY WAY ABLE TO RESET THE PASSWORD**

- The PC has an FTP server with read and write permission in this folder: C:\Eliwell.
  Entry credentials to FTP server:
    - User name: **Go**
    - Password: **GoZilla**

  The port used is TCP /IP 21.

  NOTE: We recommend modifying the FTP server password.

- Remote access to the PC is possible:
  Remote access is achieved via the UltraVNC application working from the TCP/IP 3389 port.
  The default access account is:
    - User name: **TSUser**
    - Password: **TS**

  To modify the access mode, go to programme properties.
  TSUser belongs to the Administrators group in Windows.

Service	Default Account	TCP/IP ports	Connection application
FTP	User name: **Go** Password: **GoZilla**	21	Any FTP client
Remote access	User name: **TSUser** Password: **TS**	5900	UltraVNC

- Disconnect the USB mass storage device after maintenance is performed. Leaving a USB mass storage device connected prevents the PC from rebooting properly.

⚠️ **CAUTION!!**
The PC is used exclusively for running the Televis**Go application.**
The installation of any other type of application could impair system stability.
The only installation permitted is an anti-virus software.
Users can choose an anti-virus that best suits their protection policy.
Bear in mind however that an anti-virus in action can adversely affect system performance.
Make sure the anti-virus does not block the TCP/UDP ports used by Televis**Go.**

2.5 ACCESSORIES AVAILABLE

The following accessories can be supplied for network connections:

- **GSM modem**: RS232-interface GSM modems powered by SIEMENS TC35-type technology.
- **Serial**Adapter **232**: interface to connect between the Televis**Go** RS232 port (**COM1 or COM2**) and the RS485 network.
- **Lan**Adapter: Ethernet /RS-485 interface module that allows communication via LAN between a monitoring system and a device network.
  LanAdapter supports controller networks with Micronet/Televis or MODBUS protocol.
- **WiFi Lan**Adapter: Same as **Lan**Adapter but with WiFi / RS-485 interface.
- **Bus**Adapter**:** device with TTL/RS-485 communication interface to connect Eliwell controllers to cabled supervision and monitoring networks.
- **Radio**Adapter: Same as **Bus**Adapter with wireless interface for TTL/RS-485 network connection.
- **Smart**Adapter: ModBUS protocol converter for Televis networks. It allows Televis**Net** software to connect to ModBUS protocol devices via an RS-485 interface.

👉 **NOTE**: Lo **Smart**Adapter is not required for networks managed by Televis**Go** but is available for retrofit purposes. If you decide to use the **Smart**Adapter, all devices must be connected to it.

2.6 SOFTWARE APPLICATIONS

OFFLINE CONFIGURATOR

Offline Configurator is a PC application software that configures controller networks **offline** by defining abstract structured rules. Users can create configurations to assign names, alarms and scheduled actions to be applied to the network.

The tool can be downloaded from the Eliwell website on completion of second-level registration.
Register at **www.eliwell.com** and request second level access to the confidential area.

LAYOUT DESIGNER

Layout Designer is a software application for PC enabling offline configuration of controller network **layouts** to display them graphically. The user can create graphic images (layouts) of the network connected to Televis**Go** offline, that is from any PC with no need to be networked and connected to Televis**Go** itself. Layout Designer has an interface that is similar to Televis**Go** and enables creation of graphic layouts of your warehouse; you can position the various devices and display specific resource values of certain devices in real time.

The tool is preloaded in Televis**Go** so needs no installation.
The tool can also be downloaded from the Eliwell website, with prior second-level registration.

Register at **www.eliwell.com** and request second level access to the confidential area.

3. MECHANICAL INSTALLATION

3.1 GENERAL WARNINGS

⚠ CAUTION!
Always make sure the device is disconnected before touching connections.
All operations must be carried out by qualified personnel.

Do not assemble devices in extremely damp and/or dirt-laden areas; they are designed for use in places with ordinary or normal levels of contamination. Make sure the area near the cooling slots is ventilated.
The admissible ambient temperature range for correct operation is between –5°C and +40°C;
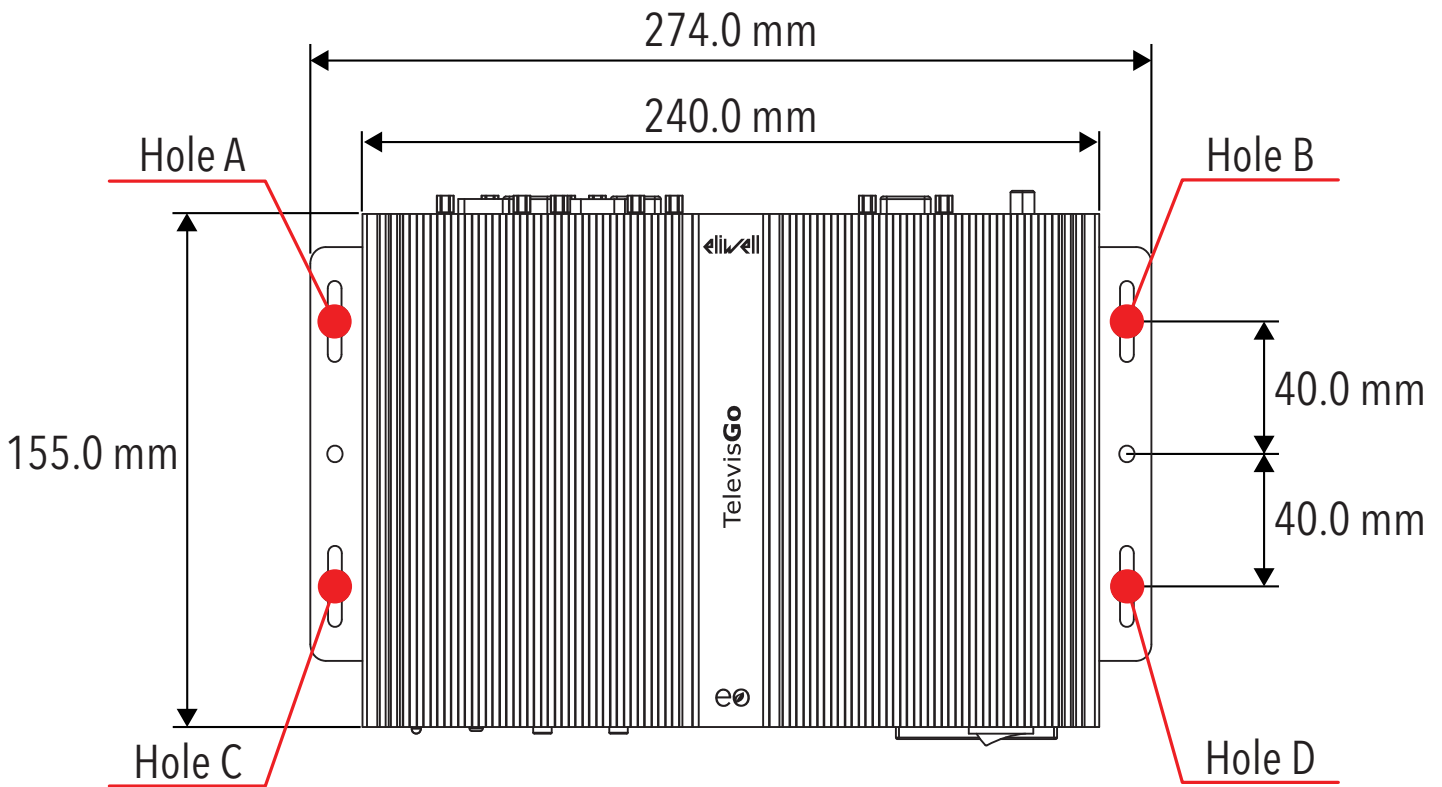
3.2 PACKAGE CONTENTS

The following can be found in the package:

- Televis**Go** device
- Power unit and power cable

3.3 MECHANICAL ASSEMBLY

Televis**Go** was designed for wall or panel-mounting. Secure the device to the wall/panel with 4 screws (not supplied) to match the holes illustrated in the figure below.
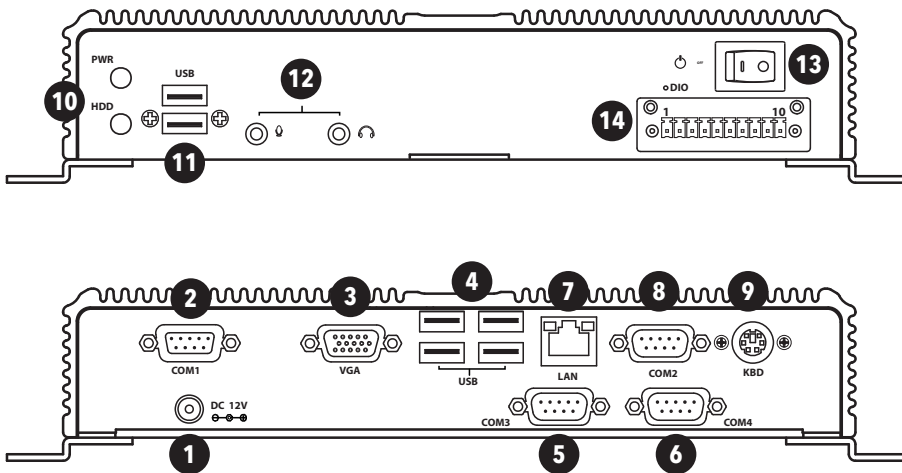
3.4 CONNECTIONS ON THE DEVICE

The following connections are to be found on the front and back of the controller:

Model with Windows XP Embedded

1) 12 Vdc power supply connection
2) COM1 (RS232) port for **Serial**Adapter
3) VGA monitor connection
4) 4 USB connections
5) COM3 (RS232) port for modem
6) COM4 (RS232) port for modem
7) LAN RJ45 connection
8) COM2 (RS232) port for **Serial**Adapter
9) PS2 keyboard connection
10) LED power supply and HDD
11) 2 USB connections
12) Audio minijack socket
13) Power ON/power OFF button
14) Not used

Model with Windows 7 Embedded Standard
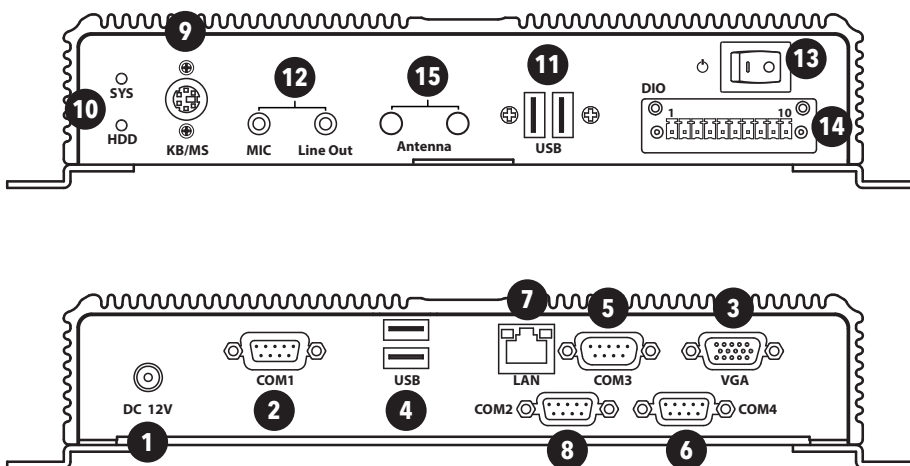
1) 12 Vdc power supply connection
2) COM1 (RS232) port for **Serial**Adapter
3) VGA monitor connection
4) 2 2.0 USB connections
5) COM3 (RS232) port for modem
6) COM4 (RS232) port for modem
7) LAN RJ45 connection
8) COM2 (RS232) port for **Serial**Adapter
9) PS2 keyboard connection
10) LED power supply and HDD
11) 2 3.0 USB connections
12) Audio minijack socket
13) Power ON/power OFF button
14) Not used
15) Not used

Modules (**Lan**Adapter, **Bus**Adapter) and system devices must be connected using a cable with 0,5 mm^2 conductors. There must be no more than 1.2 km between Televis**Go** and the last module.
Comply with relevant applicable legislation when laying data transmission cables.
Use a sheathed cable (ref. Belden cable model 8762 with PVC sleeve, 2 conductors plus braiding, 20 AWG, nominal capacity between 89 pF conductors, nominal capacity between a conductor and 161 pF shielding).
Remember to insert a 120 Ω, ¼W resistor between the "+" and "-" terminals of the last device in the network.

To switch the device off, press and hold button (**13**) for 4 seconds (a safety feature to prevent accidental switching off). In the event of a blackout, the PC and application restart automatically when mains power is restored.

3.4.1 CONFIGURING NETWORK DEVICES

Before scanning the network with Televis**Go,** each device in the network must be assigned a unique address within the same serial port or **Lan**Adapter, setting it based on the network used:

- Televis network: "**FAA**" and "**dEA**" parameters.
- Modbus Network: "**Adr**" parameter.

3.4.2 RS-485 CONNECTION

An example of a RS-485 network is provided in the figure below.
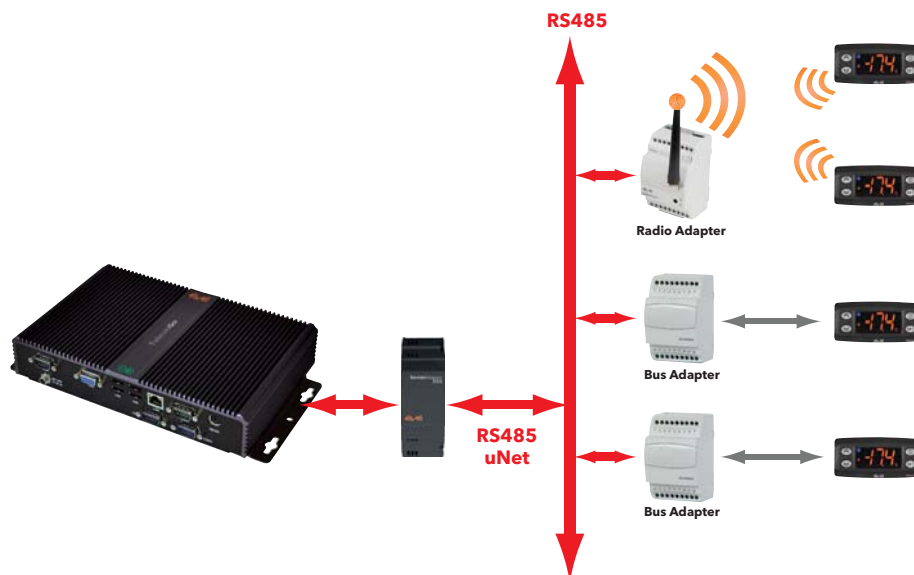
This uses: 1 **Serial**Adapter 232, 2 **Bus**Adapters, 1 **Radio**Adapter and 4 ID family controllers.

The **Serial** Adapter232 adapter can only be connected to **COM1** or **COM2** as it is powered by them. Other serial accessories (modems) must be connected to serials **COM3** or **COM4**.

3.4.3 LAN-ADAPTER CONNECTION

The figure below shows a LAN/Ethernet network.
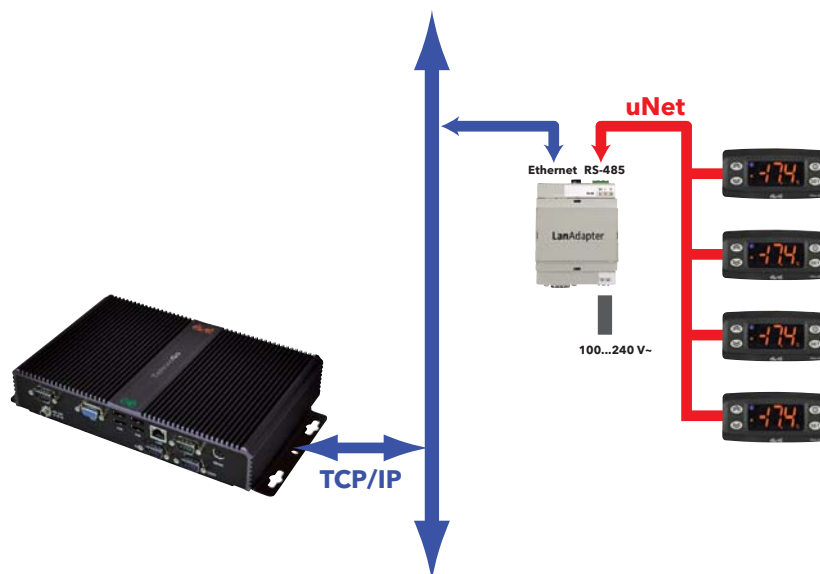
This uses: 1 **Lan**Adapter and 4 ID family controllers.

NOTE:
1. Signal propagation in an Ethernet network depends on bus traffic, making access times to the **Lan**Adapter non-deterministic and potentially influencing access time to the RS-485 sub-network.
2. If connection proves difficult, check if the right profile has been assigned to the network; if not, modify accordingly (see section entitled "**Interface definition**")

4. USER INTERFACE

Televis**Go** has an advanced user interface, accessed via web browser (*****) from any personal computer, in order to analyse data and control all functions of the plant.

(*****) A browser is a programme used to navigate web sites; it is normally included with the Operating System (Windows, Linux, Mac ...) or can be downloaded and installed free.

To access the WEB interface Televis**Go** must be switched on and connected to the Internet.

Then run one of the compatible browsers and enter the device address:

<div align="center">

http:// <**TelevisGo IP Address**>

</div>

The factory-set parameters are as follows: <**TelevisGo IP Address**> = 192.168.1.50 - Subnet mask:= 255.255.0.0

> To assure the proper function of the PC - Televis**Go** connection (Ethernet), the PC must have an IP address configured that is compatible with the Televis**Go** subnet mask (normally the same Subnet mask and IP address, in which only the fourth numerical block changes to be different for each element in the network).

For more detailed information and special installations, contact the network administrator.

4.1 LOGIN

To access any Televis**Go** function you must login.
The web login page is used to select the user interface language; the application is set by default to the browser language.
If using Internet Explorer for example, view the language at:

Tools > Internet Options > Languages. (button ⚙ in Internet Explorer 9)

At the top of the login are there are some icons concerning Televis**Go** status:

- Plant name (**A**).
- Registration status (started, stopped) (**B**).
- Alarm status (active, acknowledged, sleeping) (**C**).
- Number of users connected to Televis**Go** (**D**).
- (caution) new network recognition requested (**E**)

For further details on icons, see status icons table.

The default is a predefined user profile (account) with the following credentials:
- Username: **Administrator**
- Password: **0** (zero)

Select the check box "**Save this information**" and the system will remember the user name and language selected the next time you log in.

> **CAUTION**: The icon ⚠ (warning) appearing in the Login window means that new network recognition is required following, for example, upgrading of system and drivers.

4.2 WELCOME PAGE

The welcome page (see picture above) displays information on the current status of the installation:

- **Plant identification**: plant name.
- **Information**: software version installed on Televis**Go**.
- **Interfaces found**: number of devices found for each interface.

4.3 PAGE STRUCTURE

All pages in the web application have the same structure, i.e.:

- Navigation menu at the top
- Work area in centre.
- Status bar at the bottom

4.4 NAVIGATION MENU

The navigation menu is shown at the top of the page and contains the hypertext links to the different sections of the application:

- Data
- Alarms
- Functions (Tools)
- Settings
- Computer

Data	Alarms	Functions	Settings	Computer

Each menu has a number of associated commands listed under the menu bar (sub-menu) (e.g. "general view", "real time table", "historic table"...).
Clicking a menu changes the sub-menu but not the current page.
Clicking a sub-menu heading changes the current page.

4.5 STATUS BAR

The status bar is always shown at the bottom of the window, providing important information of system status. The Status Bar contains the following icons and text:

- **Plant name**: name of the plant. The associated icon can be one of the following:
    - = Televis**Go** is working correctly;
    - = Televis**Go** needs to be restarted.
- **Data acquisition**: Indicates Televis**Go** acquisition status (active/stopped).
- **Alarm Status**: The icon takes the form of the current alarm status, as described in the icons legend.
- **Caution**: The icon ⚠ (warning) appearing in the Login window means that new network recognition is required following, for example, upgrading of system and drivers.
- **User (Group)**: indicates the name of the current user. The group of origin is contained in the brackets. Permissions depend on the group of origin; all users from the same group are given the same permissions.

There are also more icons on the right side of the status bar:

- **Initial page**: allows to quickly return to the default page.

- **Default page**: identifies that the page displayed is the default one.

- **Default page setting**: present in the pages that can be set as default:
    - **Data → Real Time Table**
    - **Alarms → Alarm Status**
    - **Layout → Functions** (all the layout pages, even parameter pages)

    Pressing the icon, the page displayed becomes the default one.
- **Exit**: ends the current session and returns you to the login page.

or				
Plant name	Data acquisition	Alarm status	Warning	User (Group)

Initial page	Default page	Default page setting	Exit	

4.6 ACTION/COMMAND ICONS

Add element	Remove selected element	Edit selected element	Save changes	Cancel changes

4.7 STATUS ICONS

The user interface has a series of indicator icons giving instant feedback on the status of the resource the icon represents. The icons appearing in the different pages of the application are listed below, with an explanatory description:

	Icon	Description
Acquisition Status		Indicates that Televis**Go** data acquisition is active.
		Indicates that Televis**Go** data acquisition is not active.
		No controller network configured
		A pop-up opens in the requests window allowing you to block the data acquisitions.
Status Alarms		Indicates that the alarm is active
		Indicates that the alarm is active and has been noted by the user
		Indicates that the alarm in question has already ended
		It indicates that the alarm was never on or lasted less than the delay set.
		Indicates that no alarm status information is available (check plant connection and data acquisition status).
Resource status	/	**Compressor**: On / Off
	/	**Defrost**: On / Off
	/	**Port**: Open / Closed
	/	**Fans**: On / Off
Inputs and regulators		**Analogue input**.
		Digital input.
		Associated device.
		Alarm-type resource.
NOLINK		**Nolink**: Indicates that the device in question cannot be reached.
Access to the application		**Initial page**: allows to quickly return to the default page.
		Default page: identifies that the page displayed is the default one.
		Default page settings: in the pages which can be set as default (Table in real time, Alarm status, Layout). Pressing the icon, the page displayed becomes the default one.
		Exit: Disconnects the user from the application and goes back to the login page display.
Saving configuration		**Save naming**: used to save the network naming and alarm delay settings directly on the Televis**Go** device.
		Apply naming: Used to apply previously saved naming and alarm delay settings to the current network.
Acquisition cycle		graphically displays the acquisition cycle update by moving the dot clockwise.

5. INSTALLATION / MAINTENANCE

To install Televis**Go**, you have to set up the device and the network of devices it is connected to first.
This can be done via the WEB interface.

NOTE 1: On plugging in, Televis**Go** does not switch on immediately as some checks are run automatically and the software is loaded (takes about 30 seconds).

NOTE 2: Before scanning the network with Televis**Go,** each device in the network must be assigned a unique address within the same serial port or LanAdapter, setting it based on the network used:
- Televis network: the **FAA** and **dEA** parameters.
- Modbus network: the **Adr** parameters.

5.1 DEVICE SETTINGS

5.1.1 DATE&TIME SETTING

To set the plant name and <u>date & time</u> in the device, go to:

Computer → Information → General

In the window that opens, click the icon (**Edit**).
Now you can enter the date and time then click the icon (**Save**).
The date and time can be imported directly from your computer by clicking the "**Use client date/time**" button.
Click the icon (**Cancel**) to exit without saving the changes.

If you change page without saving, any changes made will be lost (the same as clicking Cancel).

CAUTION: Changing the date/time may cause your Web session to expire.
You may therefore have to log on again.

5.1.2 ENTERING THE PLANT NAME

To set the plant name in the device, go to:

Computer → Information → General

In the window that opens, click the icon (**Edit**).

You can now enter the Plant name then click the icon (**Save**).
Click the icon (**Cancel**) to exit without saving the changes.

If you change page without saving, any changes made will be lost (the same as clicking Cancel).
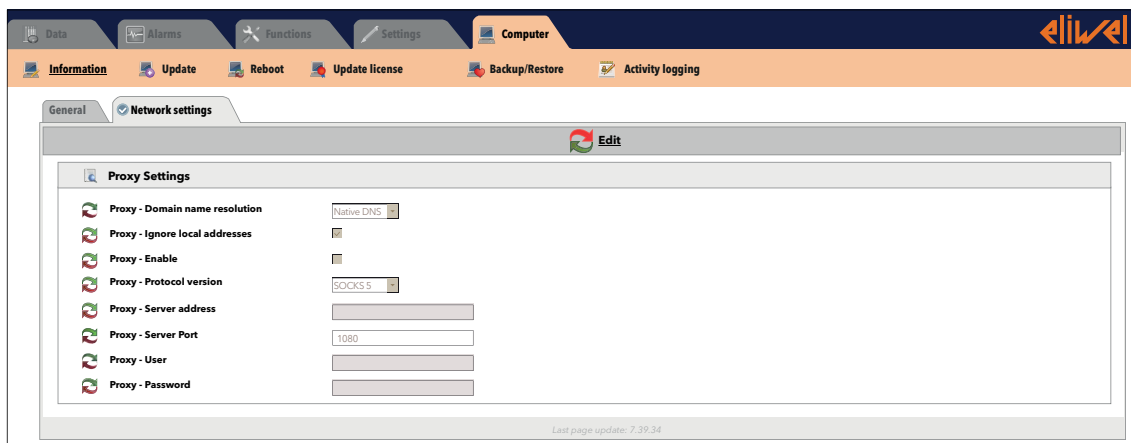
5.1.3 SETTING NETWORK IP/DNS

To set the network IP/DNS, go to:

🖥 Computer → 🖥 Information → ⊘ Network Settings

To access some windows and view their contents, stop the data acquisition using 🔄 **Edit.**

Depending on the network (contact the network administrator for necessary information), enter the following information:

Proxy Configuration: set proxy server parameters (the system must be restarted after setting these parameters):

- **Proxy - Domain name resolution**:   native DNS, Proxy or DNS via proxy
- **Proxy - Ignore for local addresses**: when selected, Televis**Go** will not use the proxy server to resolve addresses within its own sub-network
- **Proxy - Enabled**:   select if the SOCKS server requires authentication
- **Proxy - Protocol version**:   4, 4a, 5 or HTTP Proxy
- **Proxy - Server address**:   IP address of SOCKS server
- **Proxy - Server port**:   SOCKS server access port
- **Proxy - User**:   user name for SOCKS server authentication
- **Proxy - Password**:   password for SOCKS server authentication

To save data entered, click the 💾 icon (**Save**).
Click the 🚫 icon (**Cancel**) to exit without saving the changes.

👉 If you change page without saving, any changes made will be lost (the same as clicking Cancel).
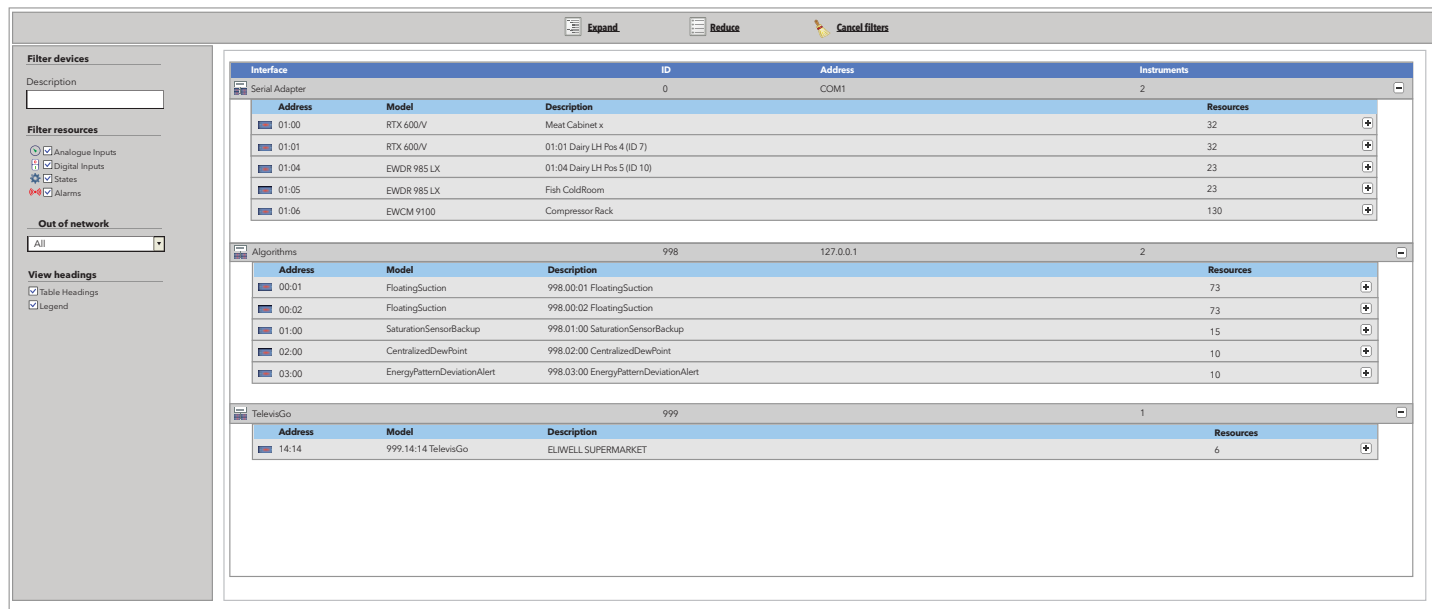
5.2 NETWORK SCAN AND ASSIGNING DEVICE NAMES

5.2.1 VIEWING INTERFACES

To view a list of the system interfaces, enter the following menus in sequence

✏️ **Settings →** 📑 **Interfaces →** ✅ **View**

A window similar to this one will open:

📑 Expand	📑 Reduce	🪄 Cancel filters		

Filter devices
Description

Filter resources
- 🕐 ☑ Analogue Inputs
- 📊 ☑ Digital Inputs
- ⚙ ☑ States
- 🔊 ☑ Alarms

Out of network
All

View headings
- ☑ Table Headings
- ☑ Legend

Interface			ID	Address		Instruments	
📑 Serial Adapter			0	COM1		2	➖
	Address	**Model**	**Description**			**Resources**	
	01:00	RTX 600/V	Meat Cabinet x			32	➕
	01:01	RTX 600/V	01:01 Dairy LH Pos 4 (ID 7)			32	➕
	01:04	EWDR 985 LX	01:04 Dairy LH Pos 5 (ID 10)			23	➕
	01:05	EWDR 985 LX	Fish ColdRoom			23	➕
	01:06	EWCM 9100	Compressor Rack			130	➕
📑 Algorithms			998	127.0.0.1		2	➖
	Address	**Model**	**Description**			**Resources**	
	00:01	FloatingSuction	998.00:01 FloatingSuction			73	➕
	00:02	FloatingSuction	998.00:02 FloatingSuction			73	➕
	01:00	SaturationSensorBackup	998.01:00 SaturationSensorBackup			15	➕
	02:00	CentralizedDewPoint	998.02:00 CentralizedDewPoint			10	➕
	03:00	EnergyPatternDeviationAlert	998.03:00 EnergyPatternDeviationAlert			10	➕
📑 TelevisGo			999			1	➖
	Address	**Model**	**Description**			**Resources**	
	14:14	999.14:14 TelevisGo	ELIWELL SUPERMARKET			6	➕

Using the **Filter devices** it is possible to exclude one or more types of resources from the display.

it is possible to hide/show the resources of a device using the buttons on the right of the screen:

- The button ➕ allows to expand the resources of a device
- The button ➖ allows to compress the resources of a device

The interfaces displaying contains the following information:

- **Address**: device address
- **Description**: device name.
- **Resources**: number of resources associated with the device

Once the list of resources has expanded, the following information will be displayed:

- **Description**: resource name
- **Name (short)**: device resource code (e.g.: ALM00300).
- **Delay**: (valid only for alarms) alarm activation delay minutes

👉 By default, all resources combined with each configured device are enabled.

5.2.2 DEFINING INTERFACES

To define system <u>interfaces</u>, go to:

✏️ Settings → 📑 Interfaces → ◉ Scan

In the new page that opens, click the 🖼 icon (**Manage interfaces**).
A window opens allowing you to enter/edit the interfaces.

NOTE: To access the page contents you must stop the data acquisition. In the window that opens, click the 🔄 icon **Edit**.

To add a network, click the 🖼 icon (**Add**), and a screen with the following options will open:

- **Interface type**: type of network interface:
  a) **Serial Adapter**
  b) **LanAdapter** (TCP/IP)

Serial Adapter (Fig.1) example:

- **Port**: physical communication port used by Televis**Go** (COM)
- **Protocol**: type of communication protocol
  a) **Micronet**
  b) **Micronet & Modbus with Smart Adapter** (Micronet with Modbus sub-network after a SmartAdapter)
  c) **Micronet & Modbus** (Micronet and Modbus together)
  d) **ModBus**
- **Fieldbus**: types of selectable networks:
  a) **Bus Adapter / Wired RS485**: RS485 serial network
  b) **Radio Adapter**: RS485 network + RadioAdapter
  c) **Smart Adapter**: RS485 network + SmartAdapter
  d) **Lan Adapter**: LAN type network
  e) **Lan Adapter Wifi**: LAN network + Wifi
  f) **Lan Adapter (Radio Adapter)**: LAN network + RadioAdapter

Fig.1

Lan Adapter example (Fig.2):

- **Address**: set the device IP address.
- **Port**: virtual TCP/IP navigation import.
- **Protocol**: type of communication protocol.
  a) **Micronet**
  b) **Micronet & Modbus with Smart Adapter** (Micronet with Modbus sub-network after a SmartAdapter)
  c) **Micronet & Modbus** (Micronet and Modbus together)
  d) **ModBus**
- **Fieldbus**: types of selectable networks:
  g) **Bus Adapter / Wired RS485**: RS485 serial network
  h) **Radio Adapter**: RS485 network + RadioAdapter
  i) **Smart Adapter**: RS485 network + SmartAdapter
  j) **Lan Adapter**: LAN type network
  k) **Lan Adapter Wifi**: LAN network + Wifi
  l) **Lan Adapter (Radio Adapter)**: LAN network + RadioAdapter

Fig.2

On selection of the 🖼 icon (**Edit**), after selecting the network to be modified, the same screen as "Add" opens where you can change all previously entered values.
Click the 🖼 icon (**Save**) to save all data entered or changes made.
When using a LANAdapter network, we recommend you always use the "<u>Test connection</u>" key to check communication between Televis**Go** and the device itself.
Click the 🚫 icon (**Cancel**) to exit without saving the changes.
To remove a network, select it then click the 🖼 icon (**Remove**).
Click the ◀ icon to go back a menu.

👉 If you change page without saving, any changes made will be lost (the same as clicking Cancel).
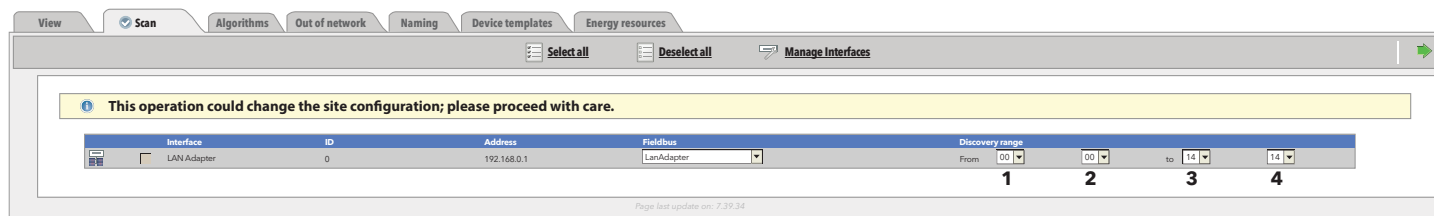
5.2.3 CONFIGURING THE DEVICE NETWORK

To set up a network of devices, go to:

✎ Settings → ▦ Interfaces → ⊘ Scan

The page appearing is:

| View | ⊘ Scan | Algorithms | Out of network | Naming | Device templates | Energy resources |

| ▦ Select all | ▦ Deselect all | ▱ Manage Interfaces | ➡ |

> ⓘ This operation could change the site configuration; please proceed with care.

		Interface	ID	Address	Fieldbus			Discovery range					
▦	☐	LAN Adapter	0	192.168.0.1	LanAdapter	▾		From	00 ▾	00 ▾	to	14 ▾	14 ▾
									1	**2**		**3**	**4**

Page last update on: 7.39.34

A list of all available and previously defined interfaces is displayed (see the Defining Interfaces section) along with associated settings (name, ID, address....).

Set the scan range using pop up menus 1, 2, 3 and 4.
The default ranges are: 00:00/14:14 for Micronet networks and 00:00/15:15 for Mixed networks and 00:01/15:15 for Modbus networks.
To start scanning or to find network devices, click the ➡ icon.

> 👉 **NOTE:** If the scan range is maximum, this operation could take a few minutes.
> Likewise, it could take even longer if there are any unused addresses (the system makes more than one attempt when it doesn't receive a reply) or if a Mixed network is being used.

Having completed the search, a window like this will appear:

	Interface	Interface identifier	Address	Devices		
▦	LAN Adapter	0	192.168.0.1	1	**A**	⊟
	Address	**Description**			**State**	
	☑ 02:00	0 02:00 0.00:00 ID 974LX			New	**B**

Line **A** identifies the network scanned. Line **B** and following, list the virtual devices associated with the network.
The colours of the rows that will appear have the following meanings:

- **GREEN**: new device located in the network
- **BLACK**: existing network device
- **GREY**: device not located, part of previous network but possibly no longer present.
- **RED**: device for which Televis**Go** has no internal driver.

On completion, click ▥ (**Save**) to save all data acquired.
Once the network has finished saving, it displays the page for assigning the network devices **names**:

✎ Settings → ▦ Interfaces → ⊘ Naming

> 👉 If you change page without saving, any changes made will be lost (the same as clicking Cancel).

> ⚠ **CAUTION**: you must repeat the scan if:
> - One or more devices have been added.
> - The drivers of one or more Televis**Go** devices have been updated.
> - You have enabled/disabled one or more device resources by changing some parameters.
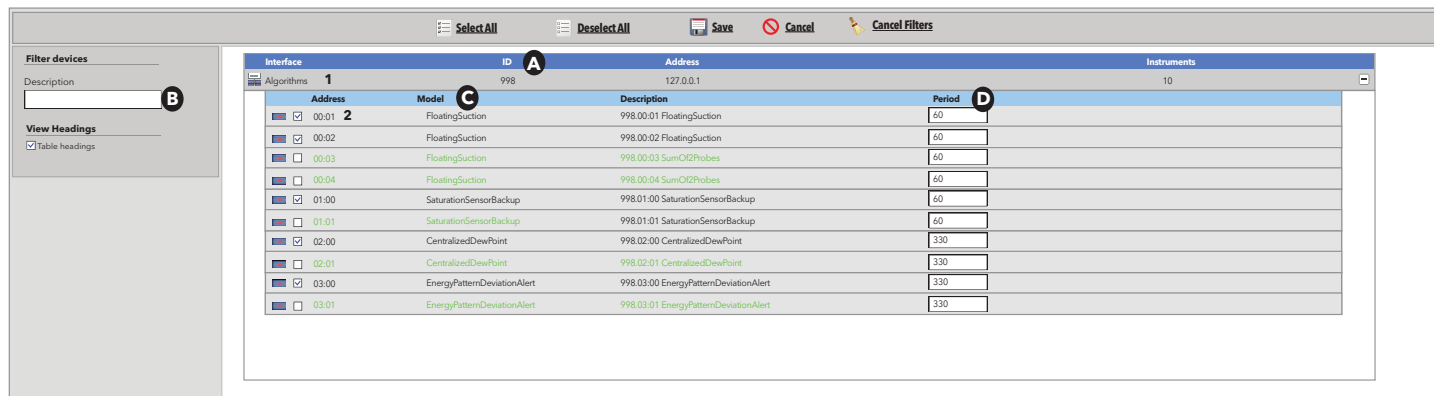> - A **device changed** alarm is displayed.

5.2.4 ALGORITHM SELECTION

To select the instances of the algorithms loaded, enter the following menus in sequence:

✏ **Settings** → ▤ **Interfaces** → ◉ **Algorithms**

The page appearing is:

Here is displayed the list of all the previously loaded virtual devices available (see System upgrading) and the related settings (address, description, alias, model…).

👉 The unique identification code **ID (A)** of the virtual interface is 998.

It is possible to filter instances to be displayed by **Description** (or part of it) **(B)**.
The instances of an algorithm all implement the same logic, but are applied to different input/output data. The number of replicated instances is a parameter that can be configured exclusively on the Free Studio application. For each algorithm loaded, the maximum number of replicated instances is 10.

👉 **CAUTION**: it is possible to activate at the same time a maximum of 20 algorithm instances and a maximum of 16 different algorithms.

The value of the address linked to each instance is assigned automatically by the application.

The **Model (C)** value linked to each algorithm is set in the programming phase with FREE Studio.

The **Period (D)** value displayed indicates the current cycle period of the instance. The period is expressed in seconds, it can take a value between 60 (1 minute) and 86400 (1 day). The current value of the cycle period can be changed by entering the desired value.

Line **1** identifies the virtual network loaded. Line **2** and following, list the virtual devices associated with the network.

The colours of the rows that will appear have the following meanings:

- **GREEN**: new virtual device found in the virtual network
- **BLACK**: virtual device already existing in the virtual network

Select on the check box to the left of address **2** the instances that have to be enabled as virtual devices of the virtual interface and press the icon 🖫 (**Save**) to save the configuration of the algorithm instances.

5.2.5 SELECTION AND DESELECTION OF DEVICES AND RESOURCES

To exclude devices or virtual or real resources from the configuration, enter the following menus in sequence:

✏ **Settings →** 🖥 **Interfaces →** ⊘ **Out of network**

The page appearing is:

It is possible to exclude any device or resource associated with a device from the configuration, including Televis**Go** with its related resources.

☞ By default, all resources combined with each configured device are enabled.

Deselect (select) using the check box at the left of the addresses **A**, the devices that have to be disabled (enabled).

☞ Deselection (selection) of a device from the configuration automatically produces the deselection (selection) of all the resources linked with that device.

Deselect (select) using the check box at the left of the description **B**, the resources that have to be disabled (enabled).
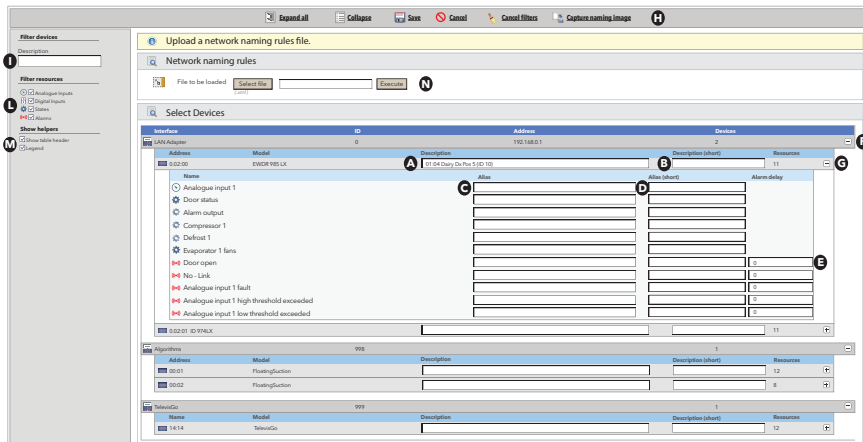Press the icon 🖫 (**Save**) to save the configuration.

5.2.6 NAMING NETWORK DEVICES MANUALLY OR FROM FILE

To name a network device **manually**, go to:

🖉 **Settings → 📑 Interfaces → ⊘ Naming**

The following page opens:

Devices viewed can be filtered by **Description** (or part description) (**I**) or by type via **Filter devices** (**L**).
Clicking the **Cancel Filters (H)** button will reset all filters defined (all device filters enabled).
The table heading and key (**M**) can be viewed/hidden.
Click **F** to expand the list of devices in the network.
In boxes **A** and **B** the device can be associated to an "**Extended Name**" (**A - Alias**) and a "**Short Name**" (**B - Short Alias**). Both can have max 25 characters. You will need the "**Short Name**" to manage TXT messages.
The valid characters are:

- Upper Case Letters (A, B, C, …)
- Lower case letter (a, b, c, …)
- Numbers (1, 2, 3, …)
- Some special characters (: , - , _ , <space>)

Click **G** to expand the list of resources in the device.
In boxes **C** and **D**, an "**Alias**" (**C**) and a "**Alias (short)**" (**D**) can be associated, using the same rules applied to the Description and the Device alias. If the resource is an **alarm**, the box "**Delay**" (**E**) will be present and can be edited, entering the "Delay Time" (**Tr**) before the alarm comes on. The alarm does not generate actions/notifications if the alarm lasts less than time **Tr** (expressed in minutes). This alarm will not be displayed in the alarms pages).
Click the 💾 icon (**Save (H)**) to save all data entered or changes made.
Once the saving is completed, the same updated page will be displayed.

👉 If you change page without saving, any changes made will be lost (the same as clicking Cancel).

👉 **NOTE:** The devices also include the Televis**Go** with all its resources.

On the instrument bar the icon 🗔 (**Export network configuration - H**), can be found; this is used to save the naming and network alarm delay settings in Televis**Go**. Clicking this button opens the file automatically (in .xml format) with the saved settings, allowing users to save a backup file.

👉 **CAUTION**: using the 🗔 icon to save settings overwrites any previously saved information.

👉 The browser may issue a warning message asking you to confirm if you want to download the file; this depends on your browser security settings.

Network devices can be named by applying the settings listed in an xml file generated by the OfflineConfigurator application (see the associated manual) or saved via the Capture naming snapshot function **(H)**:
- The file and settings to be applied can be selected in the **File to load (N)** box.
- Clicking **Execute** applies settings to all network devices matching the rules contained in the xml file.

5.2.7 NAMING NETWORK DEVICES FROM FILE

⚠️ **CAUTION**: **Paragraph intended for expert users. Requires use of advanced Offline Configurator functions.**

Network devices can be named by applying the settings in a specific xml file generated by the Offline Configurator application (see the associated manual). Go to:

✏️ **Settings → 🖧 Interfaces → ⊘ Device Template**
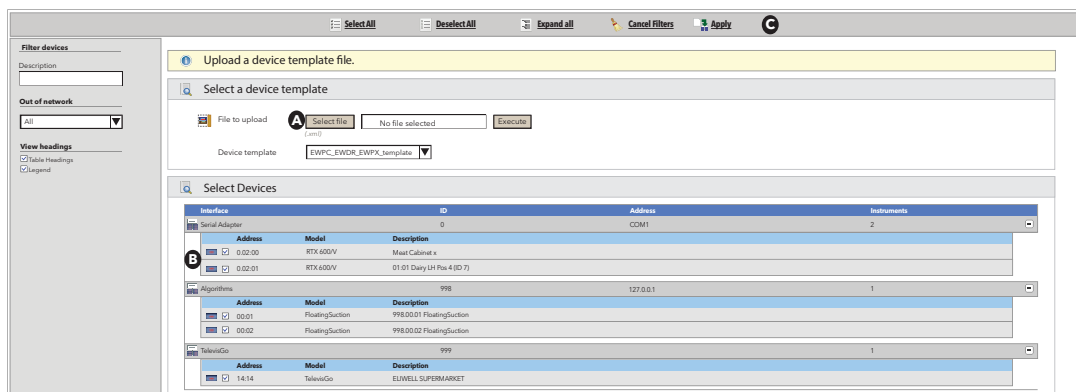
The page is very similar to the one in *Naming Network Devices Manually or From File*, as regards both the device and associated functions (for the meaning of many controls).
The file and settings to be applied can be selected in the **File to load** (**A**) template.
Clicking **Execute** will upload the template and the settings will be applied to all network devices selected via the check box to the left of the name (**B**).

The following buttons are presented at the top (**C**):

- 📑 (**Select All**): Select all devices in the list.
- 📄 (**Deselect All**): Deselect all devices in the list.
- 📥 (**Apply**): Applies the changes made.
- 🧹 (**Cancel Filters**): To cancel all filters applied.

5.2.8 REGISTRATION INTERVAL SETTINGS

A registration interval must be set. The time set (in minutes) is the interval (sample) in which data from the selected resource will be registered.
This interval does not apply to **Statuses**, **Alarms** and **Digital Inputs**. In these cases, only changes in the variables themselves are recorded, and not in relation to the interval set. To set the interval, go to:

✏️ **Settings → 📊 Data Archive → ⊘ Control**

On opening this menu, click "**Saved Registration interval in archive**", then click the icon 📝 or **Edit**, enter the number (hours:minutes:seconds) and click the icon 💾 (**Save**).

⚠️ **For Expert Users**: in

✏️ **Settings → 📊 Data Archive → ⊘ Manage**

the "**Maximum capacity**" (**MC**) (maximum capacity of the memory used to save the data) is set to **7GB**.
The user can set the "**Circularity-dedicated section size**" (**%CA**) (percentage of memory freed, cancelling the oldest data, each time the maximum capacity is reached.
The factory-set value is: **%CA** = 12%.

👉 If you change page without saving, any changes made will be lost (the same as clicking Cancel).

The device will now show the summary in:

✏️ **Settings → 📊 Data archive → ⊘ View**

5.2.9 GENERAL SYSTEM SETTINGS

This menu can be used to set the display language, the communication ports, and alarm alert transmission times. To activate the menu, go to:

✏️ **Settings** → ⚙️ **General Settings** → ◉ **System**

The following window opens:

In "**System**" you can set the following

1) **LANGUAGES**:
- **System language**:   set the language used for creating the alarm messages and communication with systems external to Televis**Go** (TWIN or third party systems)

⚠️ The system language setting impacts on information about periodical exporting (.csv files and .pdf)

2) **PORTS**:
- **Web server - Communication port**:   select the port to be used for the WEB connection (e.g. 80).
- **Data transfer - Communication port**:   select the port to be used for data downloads (e.g. 8080).

3) **EMAIL LIFE TEST**:
- **Email life test - Starting hour**:   indicates what time the test should be done (e.g. 05:00:00)
- **Email life test - Interval (hours)**:   indicates test execution interval expressed in hours (e.g. 6)
- **Email life test - Recipient**:   indicates recipient/s the test must be sent to
                                  NOTE: If there are several recipients, separate addresses by "**;**".

The following page is displayed when **TelevisTwin** is clicked:

In "**TelevisTwin**" you can set the following:

1) LIFE TEST REPORT SENDING:

- **Twin - Life test - Sending period**:   how often a life report has to be sent
- **Twin - Life test - Delay on first send**:   how long to wait after switching on before sending a life report
- **Twin - Life test - Retry interval**:   interval between 2 consecutive life report sending retries
- **Twin - Life test - Retry duration**:   maximum life report sending retry interval

The life test will be sent to TelevisTwin if at least one "TelevisTwin" action is configured within the system
(see section "**Alarm management**")

The following page is displayed when **Alarms** is clicked:

In "**Alarms**" you can set the following

1) GENERAL:

- **Alarms - Retry interval**:   sets the interval between 2 consecutive alarm sending retries (see section "**Alarm management**")

- **Alarms - Retry duration**:   sets the maximum alarm sending retry interval (see section "**Alarm management**")

- **Alarms - Emergency recipient**:   to set the telephone number to which an emergency TXT will be sent should the Televis**Go** database becomes corrupted and the recipients set by the user are no longer available.

2) TXT:

- **SMS alphabet**:   sets the type of alphabet to be used when sending TXT messages.
  Standard 7 bit (default) or **UCS2** or **Russian 7 bit**
  by default it is set to "7 bit"

- **Lower model signal threshold alarm (%)**:   sets the minimum modem signal threshold (as a percentage) which must be reached before a "Modem signal insufficient" alarm is activated

3) Email server address configuration:

- **e-mail - Server - Address**:   set the Email server address.

- **e-mail - Server - Port**:   set the Email server connection port.

- **e-mail - Server - Sender's address**:   set the sender's Email address.

- **e-mail - Server - Authentication required**:   tells the system whether authentication is required (tick the box if the Server requires authentication).

- **e-mail - Account - Name**:   set the user name (if authentication is required)

- **e-mail - Account - Password**:   set the user password (if authentication is required)

CAUTION: The only mail servers supported are those implementing TLS encrypting.

The "**Media**" card is described in section "**Alarm Management**". Test Utility sections are shown on the right: here users can check instantly if the settings applied are correct and working properly.

The following page is displayed when **Others** is clicked:

In this page you can set the following:

- **Include parameters into the network naming snapshot file**:   Includes all parameters in the network naming snapshot file

- **Show alarm resources in historical data**:   Enables or disables the alarms displayed in the historical data page

- **Show alarm resources in real time data**:   Enables or disables the alarms displayed in the real time data page

- **Execution time of the data export tasks**   Set data export time

- **Start acquisition**   Indicates the period of inactivity after which the acquisitions are restarted automatically

5.2.10 START ACQUISITION

To **Start** acquisition, go to:

✂ Functions → ⚙ Start/Stop

On entering the menu, one of the windows shown below will open:

- If acquisitions are stopped, the window on the left opens: click **Start** to start acquisition.
- If acquisitions are started, the window on the left opens: click **Stop** to stop acquisition.
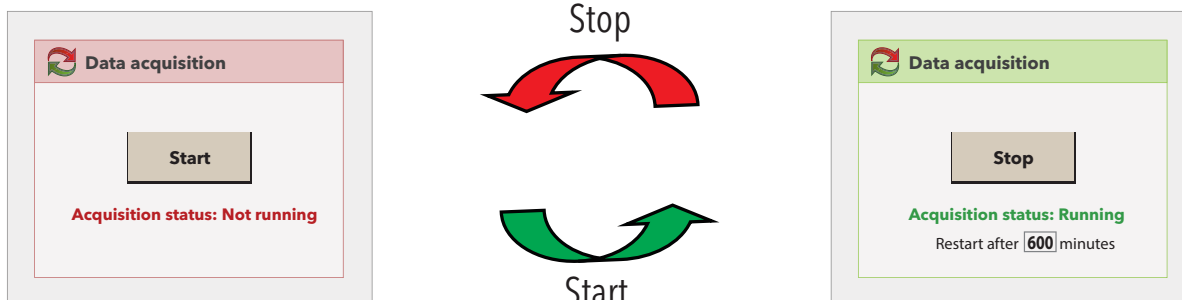
In the **Restart after** box you can set a number in minutes after which acquisition restarts automatically after it has been stopped.

👉 Automatically restarting acquisitions is useful as it will prevent users from accidentally leaving the acquisitions off after stopping for maintenance of parts of the system.

👉 **Data regarding devices and past alarms can only be viewed with acquisitions turned on.**

To view the contents of some pages, stop the acquisitions by clicking 🔁 **Edit**.
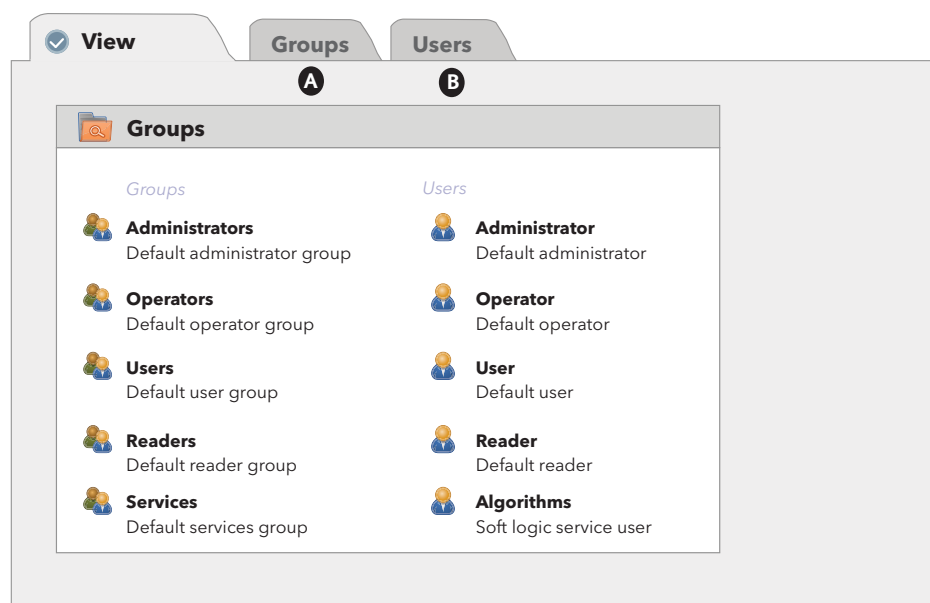You can check the acquisition status directly in the status bar (See **"4.7 STATUS ICONS"**).

5.3 MULTIPLE USER/USER MANAGEMENT AND DEFAULT PAGE

5.3.1 USER GROUP AND USERS DISPLAY

To display User Groups and Users, go to:

✏ Settings → 📇 Users → ✅ View
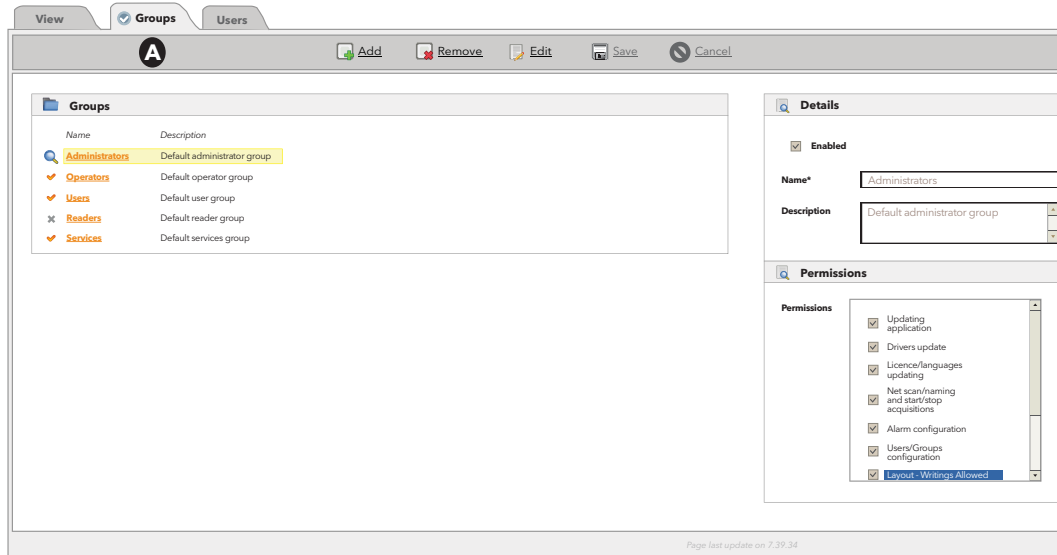
The following page will appear:

5.3.2 ADD, EDIT AND REMOVE USER GROUPS

To create/edit a **User Group** and its permissions, go to:

✎ **Settings** → 📑 **Users** → ⊚ **Groups (A)**

The following page will appear:

The following operations can be performed:

- A new user group can be created by clicking the 🔳 icon (**Add**)

- Click the 🔳 icon (**Remove**) to delete a User Group

- Click the 🔳 icon (**Edit**) to edit a User Group

- Click the 🔳 icon (**Save**) to save the User Group(s) created / edited

- Click the ⊘ icon (**Cancel**) if you don't want to save the changes made to Groups

👉 If you change page without saving, any changes made will be lost (the same as clicking Cancel).

⚠️ **CAUTION**:
Among the Permissions which can be assigned to the groups now there is "**Layout - Write Permissions**".
Its operation is described below:

- If selected (☑), users belonging to the group will have integral control of the layout pages (they can change the values of variables, perform commands, etc.).
- If deselected (☐), users belonging to the group will be able to view the layout pages but can not change the values of variables or perform commands.
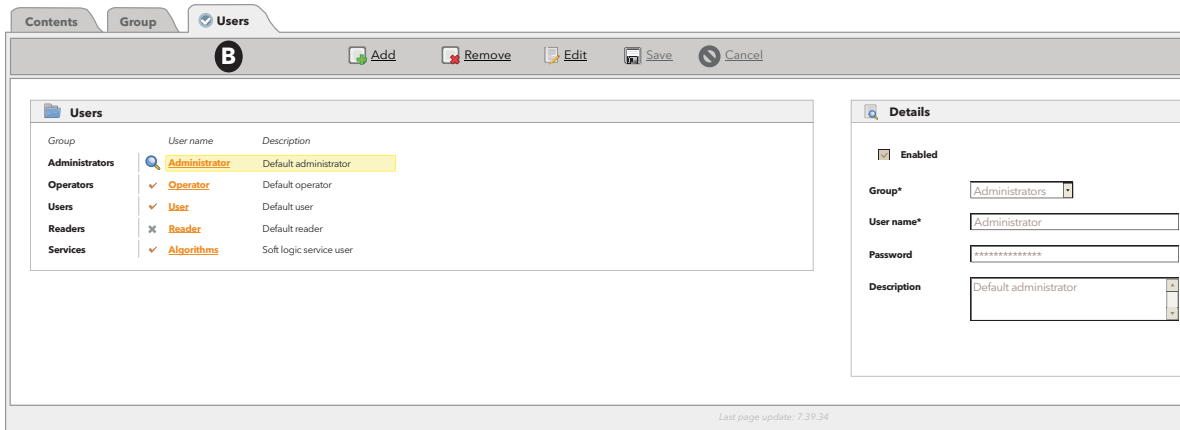
5.3.3 ADD, EDIT AND REMOVE USERS

To create/edit a **User** and their profile, go to:

<p style="text-align:center;">✏️ **Settings** → 📄 **Users** → ☑ **Users** (B)</p>

The following page will appear:

The following operations can be performed:
- Click the 🔲 icon (**Add**) to create a New User
- Click the 🔲 icon (**Remove**) to delete a User
- Click the 🔲 icon (**Edit**) to edit a User Profile
- Click the 🔲 icon (**Save**) to save the User Profile created/edited
- Click the 🚫 icon (**Cancel**) if you don't want to save the changes made to User Profiles.

👉 If you change page without saving, any changes made will be lost (the same as clicking Cancel).

NOTE:
1) The permissions for the "**Administrators**" Users Group cannot be edited.
2) To edit the Group Permissions or User Profile, you must be logged in as Administrator or have the necessary authorisation credentials for User/group management.

5.4 SCHEDULER

Televis**Go** can automatically execute actions that have been scheduled by users.

There are three types of scheduled activities (or actions):

- Send command to one or more devices.
- Write parameters to one or more devices.
- Data export in file .csv

Scheduled activities can have one of three types of frequency:

- Periodical: the action is carried out periodically, with the frequency defined by the user.
- Daily: the action is carried out every **n** days at one or more times during the day.
- Weekly: the action is carried out every **n** weeks, on specific days and at one or more times during the day.

Each scheduled event begins at a time set by the user and continues indefinitely with the defined frequency.

The action is therefore performed in accordance with the set schedule. If the action fails, Televis**Go** continues to attempt to execute it at user-defined intervals up to a maximum time, again set by the user. If the maximum duration is set to **0** or if it is less than the re-attempt interval, no further attempts will be made.
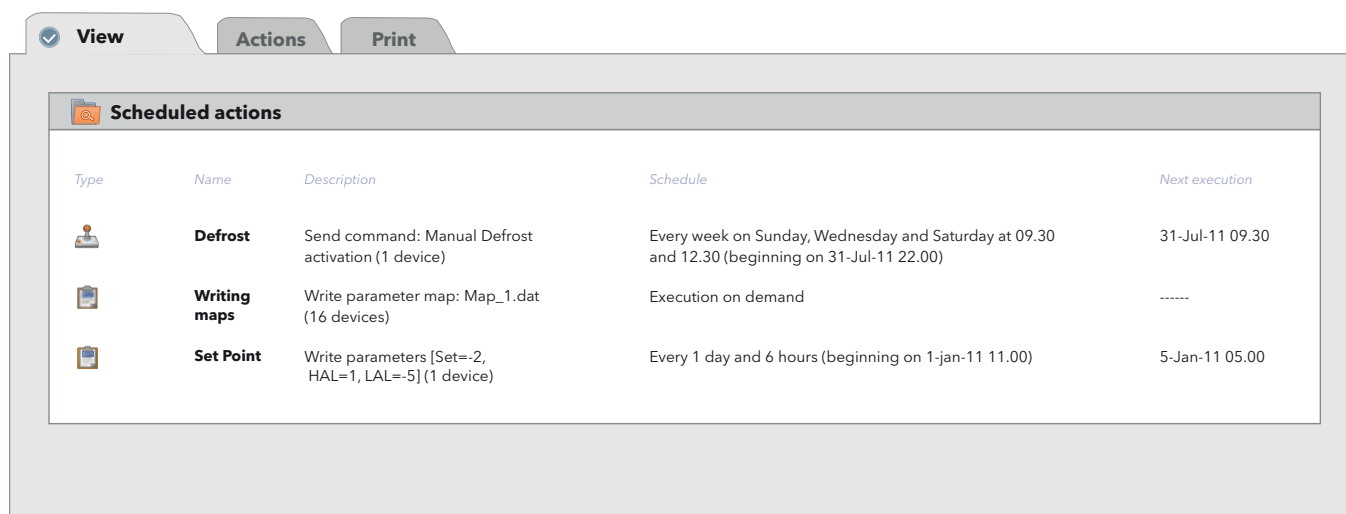
The Scheduler can be applied to a selection of devices in the current configuration. The selection is done by applying a user-defined filter to the current network configuration. The result of this filter is the list of devices that the action is to be applied to.

5.4.1 SCHEDULER DISPLAY

To view the current list of scheduled activities go to:

Settings → 🗓 Scheduler → ⊘ View

A window similar to this one will open:

Type	Name	Description	Schedule	Next execution
🧍	**Defrost**	Send command: Manual Defrost activation (1 device)	Every week on Sunday, Wednesday and Saturday at 09.30 and 12.30 (beginning on 31-Jul-11 22.00)	31-Jul-11 09.30
📋	**Writing maps**	Write parameter map: Map_1.dat (16 devices)	Execution on demand	------
📋	**Set Point**	Write parameters [Set=-2, HAL=1, LAL=-5] (1 device)	Every 1 day and 6 hours (beginning on 1-jan-11 11.00)	5-Jan-11 05.00

In the example, Televis**Go** shows three scheduled actions plus a description of each.
The columns in the table contain the following information:

- **Type** represents the type of action; send command (🧍) or write parameters (📋).
- **Name**: is a user-defined label.
- **Description**: describes the activity that will be performed; the number of devices it will be applied to is given in brackets.
- **Schedule**: describes the frequency of the activity.
- **Next execution**: states the next day/time the activity will be performed.

5.4.2 ADD, EDIT OR REMOVE SCHEDULER

To edit the scheduler, go to:

✏ **Settings** → 🗓 **Scheduler** → ✓ **Actions**

A window similar to this one will open:

The section of the left of the screen contains a list of actions currently defined by the user which can each be selected. The part on the right gives details of the action selected and the option of modifying it. At this point the following operations can be performed:

- Click the 🗐 icon (**Add**) to create a new scheduled action
- Select an action and click the 🗐 icon (**Remove**) to delete the selected action
- Select an action and click the 🗐 icon (**Edit**) to modify the selected action
- Click the 🗐 icon (**Save**) to save an action that has been edited or created
- Click the 🚫 icon (**Cancel**) to delete any changed made to an action
- Select an action or click the 🔍 icon (**Preview**) to open another window in the browser showing a preview of the tools that the selected action will be applied to.

👉 If you change page without saving, any changes made will be lost (the same as clicking Cancel).

The part on the right is split into 3 sections:

5.4.2.1 Schedule

The **Schedule** section is used to define the **Type** of schedule:

- periodic
- daily
- weekly
- execution on demand

Action performed
every day and every 6 hours (30 hours)

Periodic schedule requires the user to define:

1. The **start date** (and time) of the scheduled action.
2. The **end date** (and time) of the scheduled action.
3. The schedule **Period** (enter days.hours:minutes:seconds)
4. **Retry duration**.
5. **Retry interval**.

👉 • To define the interval of time, click the **Period** box, set the interval in the text box that opens, then click OK.

This type of event will be carried out for the first time at the time set in the **Start date** box.

Daily schedule requires the user to define:

1. The **start date** (and time) of the scheduled action.
2. The **end date** (and time) of the scheduled action.
3. Every how many days the action must be executed
4. At least one time during the day when the action must be executed
5. **Retry duration**.
6. **Retry interval**.

- Enter every how many days the action should be carried out in the **Period** box. If 0 is entered, on saving Televis**Go** will automatically insert a 1.
- To set a time(s) to carry out the action, click the **Execute At** box, enter the time in the window that opens, click OK then ＋. The time will be added to the list below.
- To delete a time added to the list, click the ▬ button. If you remove the last time in the list, Televis**Go** will automatically add 1:00 to the list.

This type of event will be carried out at the first available time at the date/time set in the **Start date** box.

Programming

Type	Daily ▾
Starting date	10-10-2012 @ 10:38
Ending date	12-10-2012 @ 10:38
Period	1
Retry duration	01:30:00
Retry interval	00:05:00

Execution times
Time
03:00

Action performed every day at 3:00

Weekly schedule requires the user to define:

1. The **start date** (and time) of the scheduled action.
2. The **end date** (and time) of the scheduled action.
3. Every how many weeks the action must be executed
4. On what days of the week it is to be executed
5. At least one time during the day when the action must be executed
6. **Retry duration**.
7. **Retry interval**.

- Enter every how many weeks the action should be carried out in the Period box. If 0 is entered, on saving Televis**Go** will automatically insert a 1.
- To set the days of the week the action should be performed on, select one or more days in the **Week** list. If no day is selected, on saving Televis**Go** will automatically select Sunday.
- To set a time(s) to carry out the action, click the Execute At box, enter the time in the window that opens, click OK then ＋. The time will be added to the list below.
- To delete a time added to the list, click the ▬ button. If you remove the last time in the list, Televis**Go** will automatically add 1:00 to the list.

This type of event will be carried out on the first available day and at the first available time after the date/time set in the **Start date** box.

Programming

Type	Weekly ▾
Starting date	10-10-2012 @ 10:38
Ending date	12-12-2012 @ 10:38
Period	1
Retry duration	01:30:00
Retry interval	00:05:00

Execution times
Time
09:30
12:30

Week
☑ Sunday
☐ Monday
☐ Tuesday
☑ Wednesday
☐ Thursday
☐ Friday
☑ Saturday

Action performed every week on Sunday, Wednesday and Saturday at 9:30 and 12:30

Manual Execution programming does not require the user to set any period (date, time, day).

This setting is only present and available for selection if the type of action set is "**Writing parameters**".

Schedule

Type	Execution on demand ▾

Action performed manually

5.4.2.2 Action

The **Action** section allows you to set the **Type** of action to be performed.

Type of action: **Command**

Action

Name		Enabled	☑
Type	Command ▼		
Command	Device on ▼		

Device on
Device off
Energy saving function activation
Disable energy saving function
Economy mode On
Economy mode Off
Lights on
Light off
Keypad lock

A **command** type of action specifies the command to be applied to the selected devices.

The <u>action</u> name must be specified in the **Name** box.

The **command** drop-down menu lists all commands for all devices currently included in the network configuration.

To make the action effective, click on "**enabled**".

Type of action: **Writing of parameters**

Action

Name	
Type	Parameter writing ▼
Type	Parameter map ▼
File name	Map_1.dat

ⓘ **Warning: The electronic devices could be damaged by too frequent EEPROM parameters writings.**

The **write parameters** (**parameter map**) action requires the name of the map file to be applied for each execution of the action must be given.

The <u>action</u> name must be specified in the **Name** box.
The file name must be specified in the **File Name box**.

To make sure Televis**Go** successfully performs the operation, the file map must be loaded from the system update page (see section entitled "System Update Modes").

Action

Name	
Type	Parameters writing ▼
Type	Parameters ▼

Parameters

Label	
(case sensitive)	
Value	➕

Label	Value	
Set	-2	➖
HAL	1	➖
LAL	-5	➖

ⓘ **Warning: The electronic devices could be damaged by too frequent EEPROM parameters writings.**

For **write parameter** (**parameters**) type actions, the list of parameters to be written and their associated values must be entered manually.
At least one parameter must be entered.

The <u>action</u> name must be specified in the **Name** box.

To enter a new parameter, write the label name in the **Label** box, the value in the **Value** box then click the ➕ button. The label/value pair will be added to the list below.
If there is a ??? label, Televis**Go** will remove it from the list as soon as a new pair is added.
If a pair already exists with the same label, Televis**Go** will overwrite the previously inserted value.

To remove a previously inserted label/value pair from the list, click the ➖ button. If you remove the last parameter in the list, Televis**Go** will automatically add a ???/??? pair.

⚠ **CAUTION**! Televis**Go** distinguishes between upper and lower case in label names.

Type of action: **Data export**

The **data export action** (Period: **Immediate**) allows the user to print and/or save the data from the previous day (from 00:00 to 24:00 hours), selected by the filter either in a .csv file or in a .pdf file.

The <u>action</u> name must be specified in the **Name** box.

Allows you to decide:
- to save the file in a folder, select the pathway and the file format (.csv, .pdf or both).
- to print the data directly
- whether to send the file via e-mail, selecting the relative box and entering the recipient's email address.

⚠️ **CAUTION**!
If this mode is selected, the **only** setting that can be programmed is: **Daily**

The **data export action** (Period: **Daily**) allows the user to print and/or save the data from the previous day (from 00:00 to 24:00 hours), selected by the filter, in a .csv file or in a .pdf file.

The <u>action</u> name must be specified in the **Name** box.

If the selection filter is set to "**None**", all the data of the previous day will be exported (from 00:00 to 24:00 hours).
If a different value **x** is selected, only the data read every **x** minutes/hours will be exported.
(**x** = None, 5 min, 15 min, 30 min, 1h, 2h, 3h, 4h, 6h and 12h).

If "Export variations" is selected, any events that may have occurred at other times than that of the programmed registrations will also be exported

Allows you to decide:
- to save the file in a folder, select the pathway and the file format (.csv, .pdf or both).
- to print the data directly
- whether to send the file via e-mail, selecting the relative box and entering the recipient's email address.

⚠️ **CAUTION**!
If this mode is selected, the **only** setting that can be programmed is: **Daily**

The **data export action** (Period: **Weekly**) allows the user to print and/or save the data from the previous week (from 00:00 on Monday to 24:00 on the following Sunday), selected by the filter, either in a .csv file or in a .pdf file.

The <u>action</u> name must be specified in the **Name** box.

If Sub-sampling "**None**" is selected, all the data of the previous week will be exported (from 00:00 on Monday to 24:00 on the following Sunday).
If a different value **x** is selected, only the data read every **x** minutes/hours/days will be exported**.**
(**x** values: None, 30 mins, 1h, 2h, 3h, 4h, 6h, 12h and 1 day).

If "Export variations" is selected, any events that may have occurred at other times than that of the programmed registrations will also be exported

Allows you to decide:
- to save the file in a folder, select the pathway and the file format (.csv, .pdf or both).
- to print the data directly
- whether to send the file via e-mail, selecting the relative box and entering the recipient's email address.

⚠️ **CAUTION**!
If this mode is selected, the **only** setting that can be programmed is: **Weekly**

NOTES:
- There can be multiple email recipients. You just need to separate addresses by a "**;**"
- The profile of data exported can be configured by the user using a wizard in the "Data Archive" paragraph.
  Default is "System_HACCP" which extracts all analogue resources of networked devices.

5.4.2.3 Devices

The **Devices** section is used to select the devices belonging to the network to which the action being set is to be applied.

This filter allows the user to view all the devices in the network and select which device must execute the scheduled actions.

(**A**) (Filter devices) = executes a filter setting a name or part thereof. This displays only what was searched for.

(**B**) (All devices) = selects all the devices in the list.

For each device there is a check box used to select each device individually (**C**).

You can select all devices linked to a specific interface by ticking the check box of the required interface (**D**).

5.4.3 PRINTING EXPORTED DATA

To view a list of the **Data Export** operations performed, enter the following menus in sequence:

✏️ **Settings** → 📅 **Scheduler** → ✔️ **Print**

A window similar to this one will open:

View	Actions	✔️ Print	

🔍 **Print**

[DataExport_EliwellSupermarket_Daily_StampaTemperatureHACCP_20130404_000000_.pdf] - [21658 Bytes] - [4/4/2013 3:00:03 AM]	Open
[DataExport_EliwellSupermarket_Daily_StampaTemperatureHACCP_20130403_000000_.pdf] - [21620 Bytes] - [4/3/2013 3:00:03 AM]	Open
[DataExport_EliwellSupermarket_Daily_StampaTemperatureHACCP_20130402_000000_.pdf] - [21695 Bytes] - [4/2/2013 3:00:19 AM]	Open
[DataExport_EliwellSupermarket_Daily_StampaTemperatureHACCP_20130401_000000__RECOVERY.pdf] - [37350 Bytes] - [4/2/2013 3:00:14 AM]	Open
[DataExport_EliwellSupermarket_Daily_StampaTemperatureHACCP_20130327_000000_.pdf] - [21700 Bytes] - [3/27/2013 3:00:06 AM]	Open
[DataExport_EliwellSupermarket_Daily_StampaTemperatureHACCP_20130326_000000_.pdf] - [21633 Bytes] - [3/26/2013 3:00:04 AM]	Open
[DataExport_EliwellSupermarket_Daily_StampaTemperatureHACCP_20130325_000000_.pdf] - [21723 Bytes] - [3/25/2013 3:00:04 AM]	Open
[DataExport_EliwellSupermarket_Daily_StampaTemperatureHACCP_20130324_000000_.pdf] - [21624 Bytes] - [3/24/2013 3:00:04 AM]	Open
[DataExport_EliwellSupermarket_Daily_StampaTemperatureHACCP_20130323_000000_.pdf] - [21648 Bytes] - [3/23/2013 3:00:03 AM]	Open
[DataExport_EliwellSupermarket_Daily_StampaTemperatureHACCP_20130322_000000_.pdf] - [21110 Bytes] - [3/22/2013 3:00:02 AM]	Open
[DataExport_EliwellSupermarket_Daily_StampaTemperatureHACCP_20130321_000000_.pdf] - [2989 Bytes] - [3/21/2013 3:00:02 AM]	Open
[DataExport_EliwellSupermarket_Daily_StampaTemperatureHACCP_20130320_000000_.pdf] - [3497 Bytes] - [3/20/2013 3:00:02 AM]	Open
[DataExport_EliwellSupermarket_Daily_StampaTemperatureHACCP_20130319_000000_.pdf] - [21703 Bytes] - [3/19/2013 3:00:04 AM]	Open
[DataExport_EliwellSupermarket_Daily_StampaTemperatureHACCP_20130318_000000_.pdf] - [21666 Bytes] - [3/18/2013 3:00:04 AM]	Open
[DataExport_EliwellSupermarket_Daily_StampaTemperatureHACCP_20130317_000000_.pdf] - [21650 Bytes] - [3/17/2013 3:00:03 AM]	Open

In the example shown in the figure, Televis**Go** displays a list of previously saved **Data export** files along with their details. Click **Open** to save the relative .pdf file with the data on the local computer.

5.4.4 REPORT CUSTOMISATION

CAUTION: By default, report headings are not shown.

The orientation of the report changes according to whether real time data or historical data are being printed:

- **Real time data**: vertical
- **Historical data**: horizontal

Headings use the same graphic elements (logos, images, titles).

The following is an example of an historical report with the heading shown:

Time (Date)	0.00:04 EWDR 985 LX Analogue input 1	0.00:05 EWDR 985 LX Analogue input 1
08.57.16 (05/09)	-23.6	-7.4
09.12.16	-23.6	-7.4
09.27.16	-23.6	-7.4
09.42.17	-23.6	-7.4
09.57.16	-23.6	-7.4
10.12.16	-23.6	-7.4
10.27.16	-23.6	-7.4
10.42.17	-23.6	-7.4
10.57.16	-23.6	-7.4
11.12.16	-23.6	-7.4
11.27.16	-23.6	-7.4
11.42.17	-23.6	-7.4
11.57.15	-23.6	-23.3
12.10.33	-23.6	-7.4
12.23.50	-23.6	-7.4
12.38.51	-23.6	-7.4
12.53.51	-23.6	-7.4
12.57.33	-23.6	-7.4
13.12.33	-23.6	-7.4
13.27.33	-23.6	-23.3
13.42.33	-23.6	8.4
13.57.34	-23.6	8.4
14.12.34	-23.6	-7.4
14.27.34	-23.6	-7.4
14.42.34	-23.6	-7.4
14.57.35	-23.6	-23.3
15.12.34	-23.6	-7.4
15.27.34	-23.6	-7.4
15.42.34	-23.6	-23.3
15.57.35	-23.6	-7.4
16.12.34	-23.6	-7.4
16.28.03	-23.6	-7.4
16.43.03	-23.6	-7.4
16.58.03	-23.6	-7.4
17.13.03	-23.6	-7.4
17.28.04	-23.6	-7.4
17.43.03	-23.6	-23.3
17.58.03	-23.6	-7.4

Plant name: Eliwell Supermarket
04 April 2013 03:00:01
C70A97410
1: Active - 0: Sleeping
Page 1 of 3

To **customise** a report heading, access the following folder in Televis**Go**:

C:\Eliwell\Televis\CustomerReports

CAUTION: once the modification/customization of one or more files in the list is performed, it is necessary to **restart the service** to make the changes operational.

This folder contains the following files:

1) **head-first-page.html**: allows the user to set the heading for the first page of the report (**A**, **B** and **C**).
2) **head-page.html**: allows the user to set the heading for the report pages subsequent to the first page (**A**, **B** and **C**).
3) **logo-left.png**: contains the logo that will appear to the left of the heading (**A**).
4) **logo-right.png**: contains the logo that will appear to the right of the heading (**C**).
5) **ReportTemplate.xml**: represents the report template an allows the user to set the height of the heading on the first page and on the subsequent pages of the report.

5.4.4.1 EDITING PNG FILES (files 3 & 4)

First of all the user needs to substitute the PNG files with the logos or images that are to appear in the report heading.
The positions will be as follows:

- **logo-left.png**: logo that will appear to the left of the heading (**A**)
- **logo-right.png**: logo that will appear to the right of the heading (**C**)

The default files contain the Eliwell logo and the Televis**Go** (see example).

NOTE: by default the HTML files assume that the images have the following dimensions:

- on the first page they will have the dimensions of 200pt x.64pt
- on subsequent pages the dimensions will be 96pt x 46pt

If the dimensions of the images differ from these, the images will be adapted to the pre-set dimensions.

CAUTION: do not change the names of the files. If other file names are used, then it will be necessary edit the code of the 2 HTML files with the heading characteristics.

5.4.4.2 EDITING HTML FILES (files 1 & 2)

To edit the 2 files, the user must first open them in a text editor (e.g.: Notepad++).
The 2 files are as follows:

- **head-first-page.html**: defines the heading that will appear on the first page of the report (**A**, **B** and **C**)
- **head-page.html**: defines the heading that will appear on the subsequent pages of the report (**A**, **B** and **C**)

The part of the code that will be certainly need to be edited is that at the end of the file, as shown below:

```
...
<br />
TITLE LINE
<br /></span>
<span class="sub-title">
Subtitle line 1
<br />
Subtitle line 2
</span></p></td>
<td class="img-cell"><img src="logo-right.png" alt="" /></td>
</tr></table>
</body>
</html>
```

The 3 parts shown in **RED** (**TITLE LINE**, **Subtitle line 1** and **Subtitle line 2**) are the parts that will appear in the centre of the report heading (**B**) and which are to be adapted to suit the requirements of the user.
If one or more lines are not required, substitute the text with a blank space.

EXPERT USERS: in the case of major changes, note that the final file must have a valid HTML format.

CAUTION: do not change the name of the file to avoid the possibility of malfunctions during the generation of reports.

5.4.4.3 EDITING THE XML FILE (file 5)

To edit the file, the user must first open it in a text editor (e.g.: Notepad++).
There are two parts of the code that are to be customised: one for real time data reports and one for historical data reports.

1) Historical data

Line 4 is to be edited (see below).

```
<historical gap="5" margin="20">
<customHeader firstPage="head-first-page.html" firstPageHeight="100" otherPages="head-page.html" otherPagesHeight="100" />
<customValues>
```

The two values to be set are shown in **RED** and **GREEN** and represent:

- **RED** value: represents the height of the heading on the first page of the report.
- **GREEN** value: represents the height of the heading on the subsequent pages of the report.

By default, these 2 values are set to "**0**".

👉 **NOTE**: it is advisable not to enlarge the images too much in order to reduce the number of pages generated.

2) Real time data (realTime)

Line 28 is to be edited (see below).

```
<realTime gap="5" margin="20" orientation="portrait">
<customHeader firstPage="head-first-page.html" firstPageHeight="100" otherPages="head-page.html" otherPagesHeight="100" />
<customValues>
```

The two values to be set are shown in **RED** and **GREEN** and represent:

- **RED** value: represents the height of the heading on the first page of the report.
- **GREEN** value: represents the height of the heading on the subsequent pages of the report.

By default, these 2 values are set to "**0**".

👉 **NOTE**: it is advisable not to enlarge the images too much in order to reduce the number of pages generated.

5.4.5 STARTING SCHEDULER

To **Start** the scheduler as scheduled, go to:

🛠 **Functions → ⚙ Start/Stop**

Depending on whether activities have commenced, when you enter this menu one of the windows shown below will open:

- If the scheduler is stopped, the window on the left opens: click **Start** to start the scheduler.
- If the scheduler is started, the window on the right opens: click **Stop** to stop the scheduler.
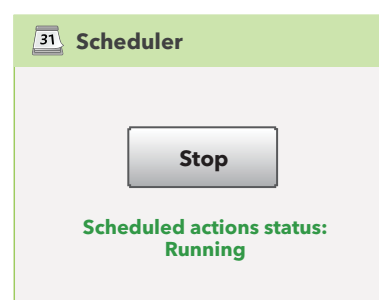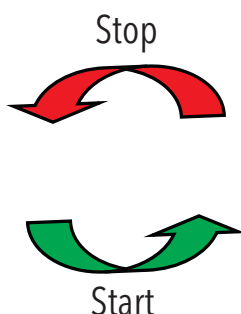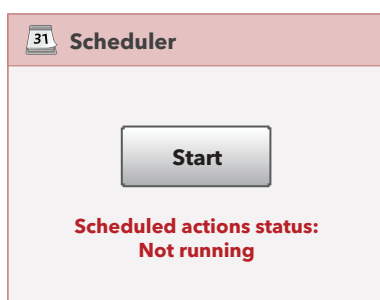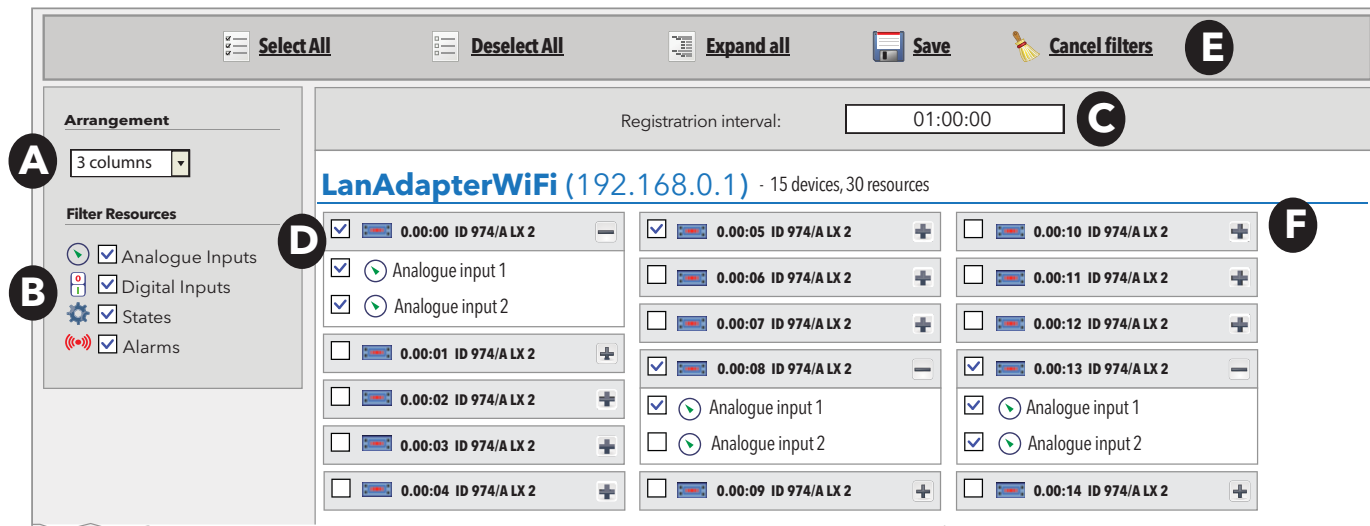
5.5 ENERGY RESOURCES

Televis**Go** allows you to treat the resources of some devices as energy utilities, i.e. measuring the electricity consumption of a plant. The measurements recorded by these resources will be saved in a dedicated database that is separate from the one with saved historical data, and with a separate registration interval.

To set up energy resources, go to:

🖉 Settings → 🖳 Interfaces → ◉ Energy Resources

A window like this will open:

The page will show the analogue resources of all recognized Modbus devices (**F**).
If there are no Modbus devices, this page would be empty.

To mark a resource as an energy resource, click the relative check box (to the left of the name) (**D**).
To mark all resources of a device, click the device check box (**D**).

The ▬ and ✚ buttons either collapse and expand individual devices to hide or show associated resources.

To set the registration interval of energy resources, click on the **Registration interval** box (**C**), set the interval in the text box that opens, then click OK. The interval must be more than 15 minutes.

The number of columns to display (**A**) can be defined and the resources filtered (**B**).

The following buttons are presented at the top (**E**):

- 📋 (**Select All**): Select all devices in the list.
- 📋 (**Deselect All**): Deselect all devices in the list.
- 📋 (**Expand All**): to view the resources of all devices in the list.
- 💾 (**Save**): to save settings entered.
- 🧹 (**Cancel Filters**): to go back to default filter properties, with all resources selected.

👉 If you change page without saving, any changes made will be lost (the same as clicking Cancel).

6. ALARM MANAGEMENT

6.1 INTRODUCTION

Televis**Go** can display, save and send the alarm situation in all devices connected to the network (e.g. high temperature alarm).

When an alarm is detected, the ((•)) symbol lights up (if not already on due to a previous alarm).
The Alarm history lists all recent "network" alarms saved in non-volatile memory.
The alarms are recorded as soon as an alarm condition is diagnosed.

CAUTION: Network alarms are only detected when Televis**Go** registration is running!

6.2 NEW ALARM ALERT/SEND MESSAGE

Televis**Go** sends an alarm alert to all correctly configured and enabled recipients.
Alarm management is controlled through alarm categories which associate device alarms to a series of actions within specific time intervals.

The methods used by Televis**Go** to send alarms are represented in the following flow chart:
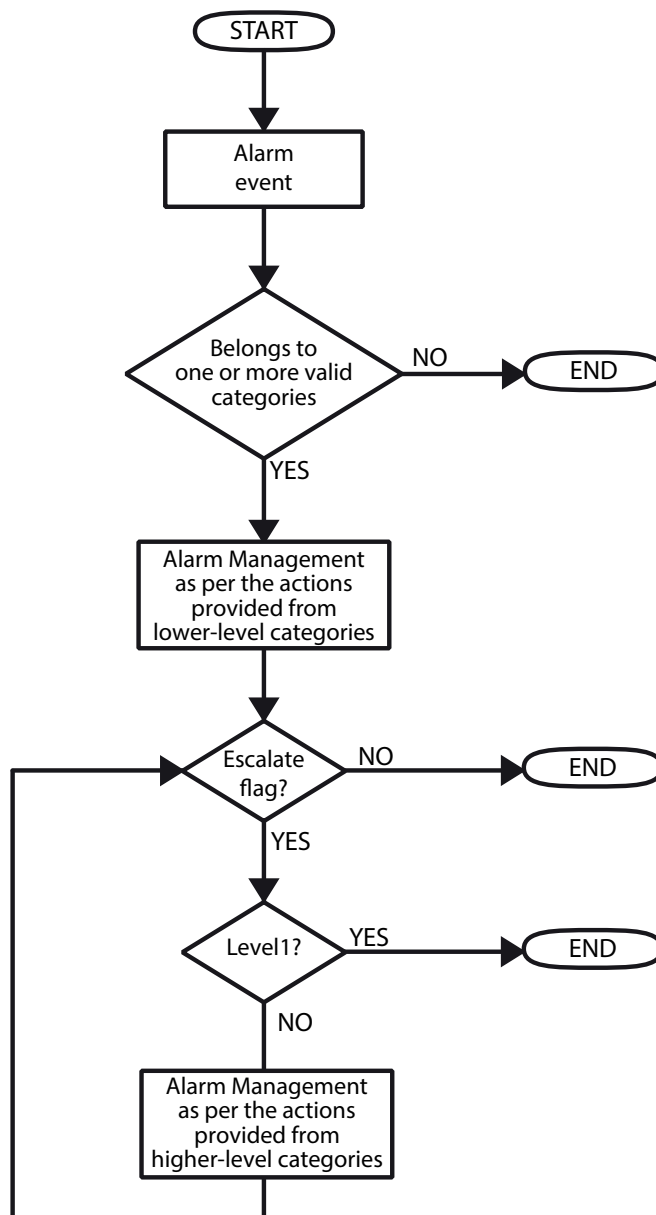
6.2.1 SETTING/SENDING ALARM MESSAGES

All alarms are recorded when changing, except for when a delay time has been set up and the alarm itself did not persist for longer than the time set in the delay.

This delay time can be set in the configuration panel for network devices (see section Installation/Maintenance - *"Naming Network Devices Manually or from File"*):
from here you can pick which alarms should be signalled and when.

If the list of recipients has been defined, when an error condition arises Televis**Go** will store it and send a message in accordance with the rules established in the relative section (see the "**Recipient Configuration**" section)

6.2.2 RECIPIENT CONFIGURATION

6.2.2.1 VIEW

To view the alarm categories, go to:

✏️ **Settings →** 🔊 **Alarms →** ⊘ **View**

All "Alarm categories" entered will be displayed.
A window like this will open:

Level	Escalate	Name	Actions	Time intervals
1		Universal	SMS - Technical Support	Daily (MON/0.00 > SUN/23.59)

Page last update on: 7.39.34

6.2.2.2 ALARM CATEGORIES

To set the alarm categories, go to:

✏️ **Settings →** 🔊 **Alarms →** ⊘ **Alarm Categories**

A window like this will open:

All "Alarm Categories" set will be shown in the box on the left (**F**).
You can select the devices in a single interface by ticking the check box of the required interface (**M**).

The following commands are presented at the top (**E**):

- ▢ (**Add**):   To add a new action.
- ▢ (**Remove**):   To remove an action saved previously.
- ▢ (**Edit**):   To modify an action saved previously.
- ▢ (**Save**):   To save changes made.
- 🚫 (**Cancel**):   To cancel changes made.
- 🔍 (**Preview**): To open a new page listing all devices associated with the filters.

Click ▢ (**Add**) or ▢ (**Edit**) to activate the right-hand part of the window; you will be able to enter all interaction details involving actions, intervals, alarms and devices.
Click ▢ (**Save**) to save the new alarm category, click 🚫 (**Cancel**) to exit without saving.

☞ If you change page without saving, any changes made will be lost (the same as clicking Cancel).

The following controls will be visible:

- **Name***: to set the name to be assigned to the alarm category (**G**)
- **Enabled**: to enable/disable the "Alarm Category" (**H**)
- **Scale**:   To enable or disable the checking of higher levels (**H**).
- ▢ ▢ : to establish whether the following have been selected in box **C**:
    - **Select all**   = ▢ (all devices selected)
    - **Get from list**   = ▢ (specific devices selected)
- ▢ ▢ : to establish whether the following have been selected in box **D**:
    - **Select all**   = ▢ (all alarms selected)
    - **Get from list**   = ▢ (specific alarms selected)
- **level**:   depending on the content of boxes **C** and **D**, an alarm category is assigned a level from 1 to 4.
    The following 4 levels can be assigned:

Level	Box **C** options	Box **D** options
Level 1	All	All
Level 2	All	Select
Level 3	Select	All
Level 4	Select	Select

In the event of an **Alarm**, the system will check whether it is managed, on which device it occurred, whether it belongs to a valid category and if it was activated during a valid interval. If all conditions have occurred, the actions set in the valid alarm categories will take place in accordance with a level-based system.

Televis**Go** always and exclusively takes valid categories into account, and always begins at the lowest-level categories (level 4). If there are several categories at the same level, the device will perform them all.
Once the Level 4 category actions are complete (if applicable), if at least one Level 4 category has the "**Scale**" flag (**H**) selected, the system will check for higher-level categories and carry out the procedures as required.
The same applies to the other levels.

⚠ **NOTE**:
1. If the "**Scale**" flag has not been selected, the device will only carry out the category procedures for the level reached.
2. If the "**Scale**" flag has been selected in a Level 4 category but there are no valid Level 3 or Level 2 categories, just Level 1 categories, the system will move directly on to the highest level.

Depending on the box in which data is being entered, the following information is required:

A - Actions:
The box displays a list of **actions** set previously (see paragraph entitled "Actions").
Actions to be performed can be selected using the corresponding flags on the left-hand side.

B -Time intervals:
The box displays a list of **time intervals** set previously (see paragraph entitled "Time intervals").
"Valid to/from" intervals for the alarm category can be selected using the corresponding boxes on the left-hand side.

C - Filters
The window can be used to select one of the following device options:

- **All devices**:   Select all network devices.
- **Get from list**:   used to select one or more specific devices **(B1)** To cancel the changes made, click 🚫 (**Cancel**)
- **All alarms**:   select all network alarms.
- **Get from list**:   Select one or more specific alarms **(B2)**. To cancel the changes made, click 🚫 (**Cancel**).

To select an alarm you must first select the device for which you wish to view the alarms, or select all devices to see the list of all alarms.

CAUTION: If several time intervals are associated with the same category, the whole group is taken into account.
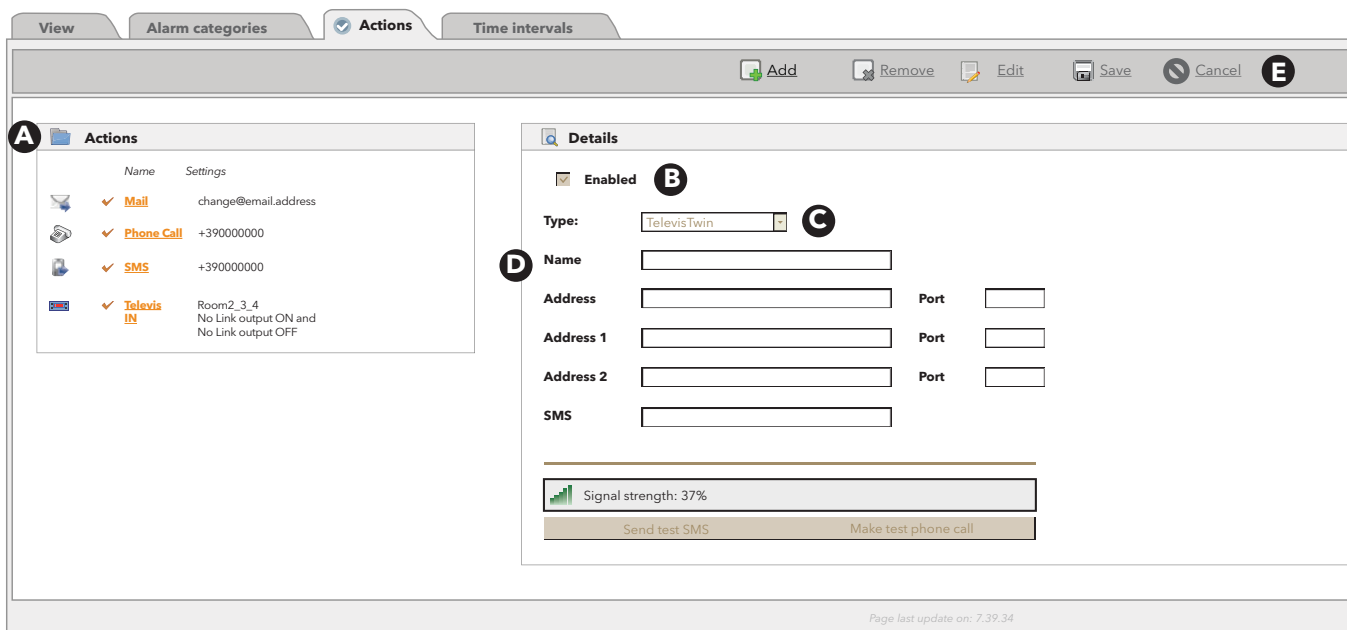
If you change page without saving, any changes made will be lost (the same as clicking Cancel).

6.2.2.3 ACTIONS

To set the actions to be performed in the event of an alarm, go to:

✏ **Settings** → 📝 **Alarms** → ⊘ **Actions**.

A window like this will open:

All "Actions" set will be shown in the box on the left (**A**).

The following commands are presented at the top (**E**):

- ⊞ (**Add**):   To add a new action.
- ⊠ (**Remove**):   To remove an action saved previously.
- ▱ (**Edit**):   To modify an action saved previously.
- 🖫 (**Save**):   To save changes made.
- ⊘ (**Cancel**):   To cancel changes made.

Click ⊞ (**Add**) or ▱ (**Edit**) to activate the right-hand part of the window; you will be able to enter all details of actions.
Click 🖫 (**Save**) to save the new action, or click ⊘ (**Cancel**) to exit without saving.

If you change page without saving, any changes made will be lost (the same as clicking Cancel).
The **Enabled** (**B**) check box enables or disables the action (disabled actions will not be performed by the system).

5 different types of action may be created:

- **TelevisTwin:**   Enter the IP addresses of a TelevisTwin to which any alarm messages should be sent.
- **Email:**   Enter an email address to which any alarm messages should be sent.
- **SMS via modem:**   Enter the telephone number you want TXT messages to go to in the event of an alarm.
- **Telephone call:**   Enter the telephone number you want to call in the event of an alarm.
- **Commands:**   Set the commands to be sent to one or more devices in the event of an alarm.

Selecting from the drop-down menu (**C**) will vary the dependent controls (**D**).

⚠ **CAUTION: Actions are only active when entered in an alarm category.**

Depending on the type of action selected, the following windows open:

A - TelevisTwin	B - Email	C - SMS via modem
Details	**Details**	**Details**
☑ Enabled	☑ Enabled	☑ Enabled
Type: TelevisTwin	Type: E-mail	Type: SMS via Modem
Name:	Name:	Name:
Address: 192.168.0.23 Port 8080	E-mail address: eliwell@invensys.com	Telephone number: +393337600000
Address 1: Port	Send test email	Signal strength: 37%
Address 2: Port		Send test SMS Make test phone call
SMS: +393337600000		
Signal strength: 37%		
Send test SMS Make test phone call		

D - Telephone call	E - Commands
Details	**Details**
☑ Enabled	☑ Enabled
Type: Phone Call	Type: Commands
Name:	Name:
Telephone number: +393337600000	Device: 0.02:00 ID 974LX
Signal strength: 37%	**Command on activating alarm**
Send test SMS Make test phone call	Command: Keyboard Locked
	Command on inactivating alarm
	Command: Keyboard Unlocked

Once all selections have been made click 💾 (**Save**) to save the changes or 🚫 (**Cancel**) to cancel them.

☞ If you change page without saving, any changes made will be lost (the same as clicking Cancel).

A - TelevisTwin:
- Name: To enter the name assigned to the action.
- Address: Enter the main IP address of the device (e.g.: 192.168.0.23) and the corresponding port (e.g.: 8080).
- Address 1: To enter an alternative IP address 1 and the corresponding port.
- Address 2: To enter an alternative IP address 2 and the corresponding port.
- TXT: To enter the telephone number you want TXT messages to go to (e.g. +39 333 7600000).
- Signal strength: To establish the signal strength of the modem connected to Televis**Go** (as a percentage).

B - Email:
- Name: To enter the name assigned to the action.
- Email: To enter the email address to which alarm alerts should be sent to.
- Send test email: To see if the settings entered are correct (the system tries to send an e-mail to the entered address)

C - SMS via modem:
- Name: To enter the name assigned to the action.
- Telephone number: To enter the telephone number you want TXT messages to go to (e.g. +39 333 7600000).
- Signal strength: To establish the signal strength of the modem connected to Televis**Go** (as a percentage).
- Send test SMS: To see if the settings entered are correct (the system tries to send a TXT message to the number entered)

D - Telephone call:
- Name: To enter the name assigned to the action.
- Telephone number: To enter the telephone number to be called (e.g.: +39 333 7600000).
- Signal strength: To establish the signal strength of the modem connected to Televis**Go** (as a percentage).
- Test phone call   To see if the settings entered are correct (the system tries to call the telephone number entered)

E - Commands:
- Name: To enter the name assigned to the action.
- Device: To identify which device in the network to be targeted.
- Command on alarm activated: To establish what the device has to do if an alarm is activated.
- Command on disabled alarm: To establish what the device has to do after an alarm has been deactivated.

CAUTION: Always enter the international dialling prefix for the recipient before the telephone number (for both phone calls and text messages). (e.g.: for Italy, enter +39).

6.2.2.4 TIME INTERVALS

To set the alarm operation time intervals, go to:

✏ **Settings** → 🗓 **Alarms** → ✔ **Time Intervals**

A window like this will open:

All intervals set will be shown in the box on the left (**A**).

The following commands are presented at the top (**C**):

- 🔲 (**Add**):   To add a new interval.
- 🔲 (**Remove**):   To remove an interval saved previously.
- 🔲 (**Edit**):   To modify an interval saved previously.
- 🔲 (**Save**):   To save changes made.
- 🚫 (**Cancel**):   To cancel changes made.

Click 🔲 (**Add**) or 🔲 (**Edit**) to activate the right-hand part of the window; you will be able to enter all details of time intervals. Click 🔲 (**Save**) to save the new time interval, click 🚫 (**Cancel**) to exit without saving.

👉   If you change page without saving, any changes made will be lost (the same as clicking Cancel).

3 different types of time interval can be created:

- **Daily:**   the interval is defined daily.
- **Weekly:**   the interval is defined weekly.
- **Monthly:**   the interval is defined monthly.

Selecting from the drop-down menu (**B**) will vary the dependent controls (**D**).

Depending on the type of interval selected, the following windows open:

A - Daily	B - Weekly	C - Monthly
Details Name* [ ] Type: [Daily ▾] [08▾] [00▾] > [19▾] [00▾]	**Details** Name* [ ] Type: [Weekly ▾] [Periodic ▾] [Monday ▾] > [Friday ▾] [08▾] [00▾] > [17▾] [00▾] **Details** Name* [ ] Type: [Weekly ▾] [Continuous ▾] [Monday ▾] @ [08▾] [00▾] [Friday ▾] @ [17▾] [00▾]	**Details** Name* [ ] Type: [Monthly ▾] [Periodic ▾] [01 ▾] > [31 ▾] [08▾] [00▾] > [18▾] [30▾] **Details** Name* [ ] Type: [Monthly ▾] [Continuous ▾] [01 ▾] @ [08▾] [00▾] [31 ▾] @ [18▾] [30▾]

A - Daily time period:

- Name: To enter the name assigned to the interval
- Interval: The 2 boxes are used to set the validity start and end time respectively; the information applies to every day
        (example: 8.00 > 19.00 indicates from 8am to 7pm
                19.00 > 6.00 indicates from 7pm to 6am the following day)

B - Weekly time period:

- Name: To enter the name assigned to the interval
- Periodical: here you should set
  - the days of the week involved (from -> to)
  - the time period involved (from -> to) on each day
- Continuous: here you should set
  - the day of the week and the start time
  - the day of the week and the end time

Periodic interval

Settings: Monday > Friday
        08:00   > 17:00

ON
OFF
MON TUE WED THU FRI   MON TUE WED THU FRI
8 17 8 17 8 17 8 17 8 17   8 17 8 17 8 17 8 17 8 17   hours

Continuous interval

Settings: Monday @ 08:00
        Friday   @ 17:00

ON
OFF
MON TUE WED THU FRI   MON TUE WED THU FRI
8 17 8 17 8 17 8 17 8 17   8 17 8 17 8 17 8 17 8 17   hours
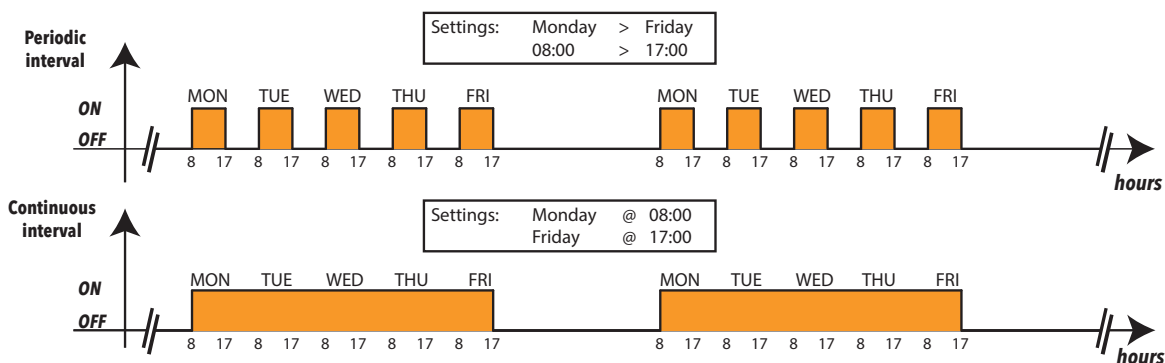
C - Monthly time period:
- Name   To enter the name assigned to the interval
- Periodical: here you should set
  - the days of the month involved (from -> to)
  - the time period involved (from -> to) on each day
- Continuous: here you should set
  - the day of the month and the start time
  - the day of the month and the end time

Periodic interval

| Settings: | 1 | > | 5 |
| | 08:00 | > | 17:00 |

ON
OFF
1 2 3 4 5   1 2 3 4 5
8 17 8 17 8 17 8 17 8 17   8 17 8 17 8 17 8 17 8 17
hours

Continuous interval

| Settings: | 1 | @ | 08:00 |
| | 5 | @ | 17:00 |

ON
OFF
1 2 3 4 5   1 2 3 4 5
8 17 8 17 8 17 8 17 8 17   8 17 8 17 8 17 8 17 8 17
hours
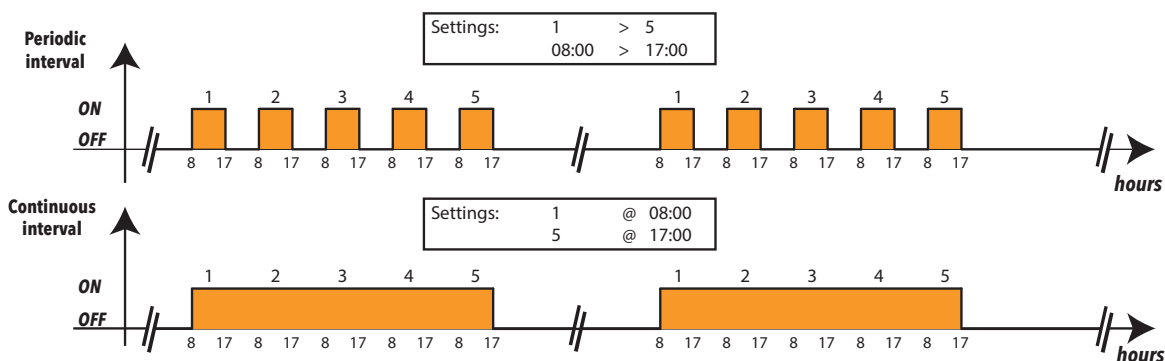
⚠️ **CAUTION**:
The "CONSTANT" time interval is pre-set as part of the system and cannot be deleted (it selects 24 hours for all days of the week).

6.2.3 MEDIA CONFIGURATION

Televis**Go** automatically detects all compatible connectivity devices it is connected to (such as a LAN network or GSM modem for example). Televis**Go** can use these devices (media) to send alarm alerts.
To view media devices detected and assign priorities to them, go to:

🖊 **Settings →** ⚙ **General Settings →** ✅ **Media**

On clicking Modify, the following screen opens:

| System | TelevisTwin | Alarms | ✅ Media |

🗋 Edit   💾 Save   🚫 Cancel

🔄 Reboot the system in order to make the new settings active.

🔍 **Detected Media**

Type		Details	Detected
🌐	Ethernet	Realtek PCI e GBE Family Controller - Packet Scheduler Miniport	✔
☎	Telephone		⛔
🌐	PSTN Dial Up		⛔
📱	Mobile phone		⛔
🌐	GSM Dial UP		⛔
🌐	GPRS Dial Up		⛔
📲	SMS		⛔
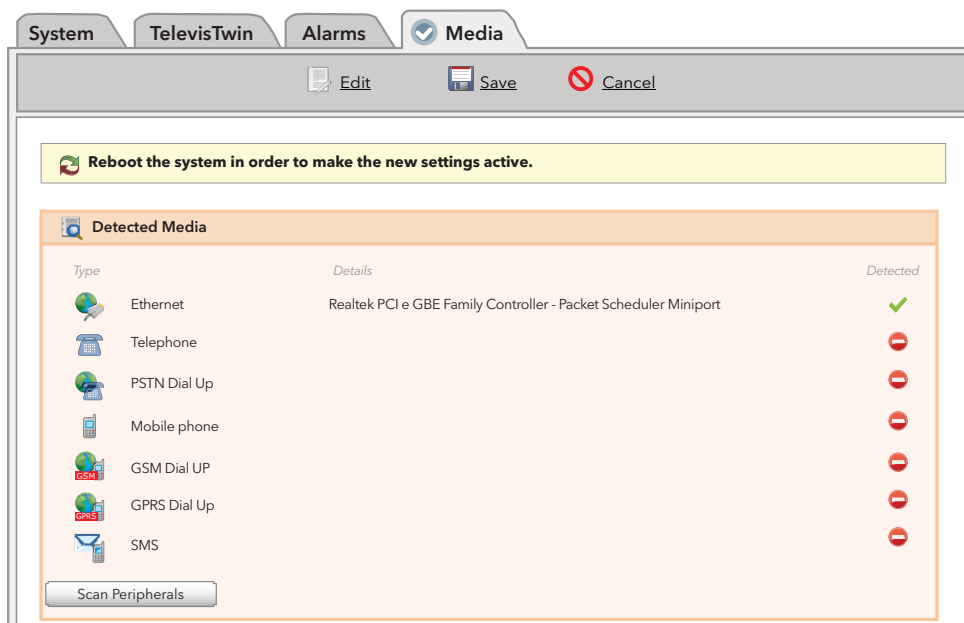
Scan Peripherals

The Media Found box lists all elements located and the **type** of connection.
The **Located** column indicates if the medium specified was found or not, and a description is provided in the **Details** columns.
On clicking **Scan peripheral devices**, the system starts scanning for media devices connected to Televis**Go**.

6.2.3.1 MEDIA PRIORITY

Televis**Go** has a backup mechanism for alarm messages sent.
From this page, you can decide in which order the system should sent alerts in.

📝 e-mail - Priority	
e-mail - Primary Medium	Ethernet ▼
e-mail - Secondary Medium	GSM Dial Up ▼

None
Ethernet
GSM Dial Up
PSTN Dial Up
GPRS Dial Up

For example, in the Priority Email box, the primary medium to send alarm alerts via email to can be selected (Ethernet in the example provided). If there is no Ethernet connection, Televis**Go** will try to send the email using the secondary medium (a GSM modem in this case).

📝 Phonecall - Priority	
Phonecall - Primary Medium	Mobile pho ▼
Phonecall - Secondary Medium	None ▼

None
Mobile phone
Telephone

The order of priority for phone call alarm messages is established in the same way.

In both cases, the drop-down menus list all media found for the type of notification, even if the specific one is not currently enabled.

6.2.3.2 MEDIA SETTINGS

PSTN, GSM and GPRS connections can also be made from this page.
Each of the three types of connection can be activated from the associated check box.
For PSTN and GSM connections, the following must be entered:

- Number of telephone provider with country code (for example, +39 for Italy)
- User of dial up connection, and
- password of user for the dial up connection.

PSTN Dial Up Details

Enable PSTN Dial Up ☐

PSTN Provider number [_____]

PSTN Username [_____]

PSTN Password [_____]

Test utility

[Test connection]

GSM Dial Up Details

Enable GSM Dial Up ☐

GSM Provider number [_____]

GSM Username [_____]

GSM password [_____]

Test utility

[Test connection]

For GPRS connections, the service Access Point Name (APN) is required
(for example, internet.mnc012.mcc345.gprs).

GPRS Dial Up Details

Enable GPRS Dial Up ☐

GPRS APN [_____]

Test utility

[Test connection]

Using the simple, intuitive interfaces, users can view data and/or alarms in real time, explore the data archive/alarm log, view graphs and download all data viewed.

CAUTION:
Network alarms and real-time data are only detected when Televis**Go** registration is running!

7.1 ALARM DISPLAY

All switches to alarm condition are recorded, except for when a delay time has been set up and the alarm itself did not persist for longer than the time set in the delay.

7.2 DATA DISPLAY

There are two ways of viewing data recorded by network devices:

* Real-time data
* Historical data

7.2.1 REAL-TIME DATA

To view real time data, go to:

Data → Real Time Data

The following window opens:

If the acquisitions were previously stopped they can be started by clicking on "**start**".

It is possible to upload a pre-defined profile to the "Data Archive":

* Profile (**B**)

After a net Scan, televis**GO** will automatically create the default profiles that are identifiable with the suffix "**#**"**.**

Devices are grouped by interface; users can distribute the list over 1, 2, 3, 4 or 5 columns using the drop-down menu (**A**).

Next to the ⚙ icon the time in seconds (**E**) taken by the Televis**Go** to capture data from all the devices connected to the interface is displayed.

Moving the cursor to the device name level (**C**), a tooltip will appear with the address and the model of the controller (**F**). This allows to quickly view this information without having to access the network displaying page.

NOTE: the width of the header with the name of the device is constant within the same column

The 4 icons at the device name level (**C**) represent the 4 basic statuses and are always shown:

- Compressor status (❄)
- Fan status (✿)
- Defrost status (❄)
- door status (▪)

If they are grey, it means the resource is switched off, whereas other colours mean they are active.
They are NOT shown in the list below.

The list of relative resources is shown below the device (**D**).
If the resource is not active or not available, it will be shown in grey (**C**).
If the resource is active or available, it will be shown in colour (**C**).

Click the ⊞ button to show/hide the list of resources for each device.

The following buttons are presented at the top:

- ▦ (**Expand**): to view the resources of all devices in the list.
- ☰ (**Collapse**): to hide the resources of all devices in the list.
- 🖨 (**Print**): allows the user to print the data displayed. The application will save them in a **.pdf** file (viewed with Acrobat Reader or similar) which can subsequently be printed

7.2.2 DATA ARCHIVE

Historical data can be viewed in table format in the various ways described below.
To access and view the page, go to:

🔲 Data → 🔵 Historical table

The following window opens:

Profile

--- New profile ---

⊙ Quick

Last hour

○ Custom

Select default profile

After the first net Scan, televis**GO**, will automatically create default profiles marked by the suffix "**#**". These profiles can then be edited by the user and the system will save them as manual profiles.

Select a relative (Quick) or absolute range (Custom). In the former case, there is a series of preset intervals that start counting backwards from the current date (by 1, 2, 3, 6, 12 hours, 1 or 2 days).
In the latter case, the start/stop date/time must be specified.

If a profile has been selected, click ⏩ to go straight to the data presentation page (step 3); otherwise, you will be taken to the next page (step 2).
Click ⏩ to go to the next page. The next page is structured as outlined below:

	Select All	Deselect All	Expand	Reduce	

A Arrangement
2 columns

B Profile
New profile
Last hour

C Time intervals
From
21/07/2010 15.38.59
a
21/07/2010 15.38.59

D 1 Network configuration
1 From 18/06/2010 17.43.18

E Filter resources
☑ Analogue Inputs
☑ Digital Inputs
☑ States
☑ Alarms

F Undersampling
☐ Show analogue only
Number of records displayed

.0. SerialAdapter (COM1) - 4 devices, 41 resources

☐ 0.02:00 ID 974LX
☐ Analogue input 1
☐ Door   **Address:** 00:00
☐ Alarm output **Model:** ID 974LX **H**
☐ Compressor 1
☐ Defrost 1
☐ Evaporator 1 fans

☐ 0.03:00 ID 974LX **G**
☐ Analogue input 1
☐ Door
☐ Alarm output
☐ Compressor 1
☐ Defrost 1
☐ Evaporator 1 fans

☐ 0.04:00 ID 974LX
☐ 0.04:06 EWDR 985 LX

998 Algorithms (Algorithms) - 3 devices, 28 resources

☐ 998.01:00 AlarmRepeater
☐ 998.02:01 TestMAXBug
☐ 998.02:00 TestMAXBug

999 TelevisGo - 1 device, 3 resources

☐ 999.14:14 TelevisGo
☐ Modem signal strength
☐ Relay 1
☐ Relay 2

Last page update: 7.39.34

The functions of the different parts of the page are:

- (**A**) **Layout**, to choose a display with 1, 2, 3, 4 or 5 columns.
- (**B**) **Profile**, identifies the name of the profile selected (if it is new, the profile type is specified).
- (**C**) **Time intervals**, identifies the time interval set for the display.
- (**D**) **Network configurations**, identifies the number of network configurations present and since when.
- (**E**) **Resource Filters**, shows/hides analogue and digital resources, statuses and/or alarms.
- (**F**) **Sub-sample**, when enabled using the check box and when the number of records to view has been specified (**n**), sub-samples the number of records present by the selected interval (**C**)
    (see **NOTE** under "Undersampling operations)
- (**G**) list of network instruments/resources. Each resource can be selected/deselected to decide which data to view/download.
- (**H**) Moving the cursor to the device name level, a tooltip will appear with the address and the model of the controller.

Click on ⊟ button hides/shows the list of resources for each device.

The following buttons are presented at the top:

- ▤ (**Select All**): Select all devices in the list.
- ▤ (**Deselect All**): Deselect all devices in the list.
- ▥ (**Expand**): to view the resources of all devices in the list.
- ▤ (**Collapse**): to hide the resources of all devices in the list.

👉 **NOTE: Undersampling operation**

The Sub-sampling function can be summarised as follows: the system examines the extent of the interval to be analysed, divides it into **n** sub-intervals (where **n** is the number of records set in section **F**) and displays 1 record for each of the sub-intervals.
Only analogue resources are shown.
Even if selected using other filters, any other resources are not shown.

Select devices (and associated resources as applicable) to capture data from using the check boxes to the left of the name, then click ➡ to go to the next page. This page displays the data selected:

	Time of 09/06/2009	Analog input 1 (°C)	Modified parameters	Device state	Keyboard enabling	Compressor	Defrosting status	Fans	Auxiliary	Light	Alarm	Buzzer	Reduced set-point	Forced ventilation	Out 1	Out 2	Out 3
																	Fruit island 1
	14.31.32	41,7	1	1	0	1	0	1	0	1	0	0	1	1	1	0	1
	14.32.32	41,7	1	1	0	1	0	1	0	1	0	0	1	1	1	0	1
	14.33.32	41,7	1	1	0	1	0	1	0	1	0	0	1	1	1	0	1
⊟	14.34.32	41,7	1	1	0	1	0	1	0	1	0	0	1	1	1	0	1
	14.35.15					0	1	0							0	1	0
	14.35.32	41,7	1	1	0	0	1	0	0	1	0	0	1	1	0	1	0
	14.36.32	41,7	1	1	0	1	0	1	0	1	0	0	1	1	0	1	0
	14.37.32	41,7	1	1	0	0	1	0	0	1	0	0	1	1	0	1	0
	14.38.32	41,7	1	1	0	0	1	0	0	1	0	0	1	1	0	1	0
	14.39.32	41,7	1	1	0	0	1	0	0	1	0	0	1	1	0	1	0
	14.40.32	41,7	1	1	0	0	1	0	0	1	0	0	1	1	0	1	0
	14.41.32	41,7	1	1	0	0	1	0	0	1	0	0	1	1	0	1	0
	17.08.03	**Plant power off**															
	17.08.03	**Acquisitions running**															
	17.08.09	41,7	1	1	0	1	0	1	0	1	0	0	1	1	1	0	1
	17.09.09	41,7	1	1	0	1	0	1	0	1	0	0	1	1	1	0	1
	17.19.34	41,7	1	1	0	1	0	1	0	1	0	0	1	1	1	0	1
	17.20.01	**Acquisitions stopped**															
	17.20.18	**System time change: -1 hour**															
	17.20.46	**Acquisitions running**															
	17.20.52	41,7	1	1	0	1	0	1	0	1	0	0	1	1	1	0	1

Export   Print   Profile

The first column gives the date/hour of data saving, and a series of columns with the previously selected resources and relative values read for each device.

- The ⊞ icon allows you to expand variations of asynchronous resources (statuses and digital inputs).
- The ⊟ icon allows you to collapse variations of asynchronous resources (statuses and digital inputs).

4 lines with a coloured background may also be shown:

- **RED** background: establishes the time during which data logging was stopped (Acquisitions stopped).
- **GREEN** background: establishes the time during which acquisition took place (Acquisitions running)
- **YELLOW** background: establishes when the time was changed (System time change).
- **GREY** background: establishes the timescale of a power off period or a power supply failure (Plant power off).

Click on 📥 (**Export**) to export all data. The application will save data in a **.csv** file (which can be viewed in an electronic spreadsheet like Microsoft Excel) in a user-defined PC.
Click on 🖨 (**Print**) to print all data. The application will save the data in a **.pdf** file (which can viewed using Acrobat Reader or a similar program) for subsequent printing.
To save the profile and make it available to retrieve later, click the 🔖 icon (**Profile**).

7.2.2.1 Creation and management of an HACPP profile

During the profile definition stage there is the possibility to create one or more profiles, categorised as **HACCP** profiles, that influence the way in which data are displayed and formatted during the printing stage.

In order to create an **HACCP** profile one of the following conditions must be satisfied:

1. That for each network tool, just one analogue sensor is selected (by default sensor 1 - usually regulation) and just one state associated with the selected analogue sensor (which is interpreted by default as defrost: state STA00037)

2. That only analogue sensors are selected

When this profile is selected, the format of the data displayed or printed is modified as follows:

- Only the variable is displayed with the temperature
- An * (asterisk) is added after the temperature value if defrost is active
- The asterisk continues to be displayed after the temperature value until defrost has terminated for the period defined in the configuration file **GenericSettings.xml** (default = 30min)

In the case of Flash printing (periodical printing of real time data) or of real time display, the system behaves as follows:

- In the event of a sensor error for an analogue resource or a "no-link" controller error, the system will search the historical data for a previous valid temperature value.

- The duration of the search window is defined in the configuration file (default = 30 mins.)

Only filters that satisfy the conditions outlined in the previous points 1 and 2 can be categorised and saved as HACCP filters.
It is for the user to decide whether to categorise a filter as HACCP (by selecting the relative option), but TelevisGo will only provide this option for filters that satisfy the conditions.

NOTE: The GUI for the generation of these filters is this historical data wizard.

Televis**Go** already has a predefined HACCP profile.
During an upgrade, the current System-HACCP profile will be modified in accordance with the filter settings defined above.
The System-HACCP profile and any HACCP profiles created by the user, can be selected in the real time data and the historic data.

NOTE: If the selected resources satisfy the HACCP conditions, on saving the profile a checkbox will appear with the text HACCP to the right of the box where the profile name is to be entered.
If this checkbox is selected, the profile will be applied to the reports generated.

7.2.2.2 Data archive graphs

CAUTION:
To view graphs, you need to install Adobe Flash player version 10.0.x or later.
This plug-in can be downloaded as freeware from the Adobe website (www.adobe.com).

Historical data can be viewed in table format in the various ways described below. To view the page, go to:

Data → Historical chart

The following screen opens:

Profile

--- New profile ---   → Select default profile

○ Quick

Last hour   → Select a relative (Quick) or absolute range
(Custom). In the first case there is a series of default intervals
which count from now backwards (1, 2, 3, 6, 12 hours, 1 or
2 days). In the latter case, the start/stop date/time must be specified.

○ Custom

If a profile has been selected, click to go straight to the data presentation page (step 3); otherwise, you will be taken to the next page (step 2).
Click to go to the next page. The next page is structured as outlined below:

| | Select All | Deselect All | Expand | Reduce | |

A — Arrangement
2 columns

B — Profile
New profile
Last hour

C — Time intervals
From
21/07/2010 15.38.59
a
21/07/2010 15.38.59

D — 1 Network configuration
1 From 18/06/2010 17.43.18

E — Filter resources
☑ Analogue Inputs
☑ Digital Inputs
☑ States
☑ Alarms

F — Undersampling
☐ Show analogue only
Number of records displayed

.0. SerialAdapter (COM1) - 4 devices, 41 resources

☐ **0.02:00 ID 974LX**
☐ Analogue input 1
☐ Door   Address: 00:00
☐ Alarm output   Model: ID 974LX   **H**
☐ Compressor 1
☐ Defrost 1
☐ Evaporator 1 fans

☐ **0.03:00 ID 974LX**   **G**
☐ Analogue input 1
☐ Door
☐ Alarm output
☐ Compressor 1
☐ Defrost 1
☐ Evaporator 1 fans

☐ **0.04:00 ID 974LX**
☐ **0.04:06 EWDR 985 LX**

998 Algorithms (Algorithms) - 3 devices, 28 resources

☐ **998.01:00 AlarmRepeater**
☐ **998.02:00 TestMAXBug**
☐ **998.02:01 TestMAXBug**

999 TelevisGo - 1 device, 3 resources

☐ **999.14:14 TelevisGo**
☐ Modem signal strength
☐ Relay 1
☐ Relay 2

Last page update: 7.39.34

The page layout and functions of each button are as specified in the Data Archive section, which you are referred to.

Select devices (and associated resources as applicable) to capture data from using the check boxes to the left of the name, then click to go to the next page.

The page will show the selected data in a chart:
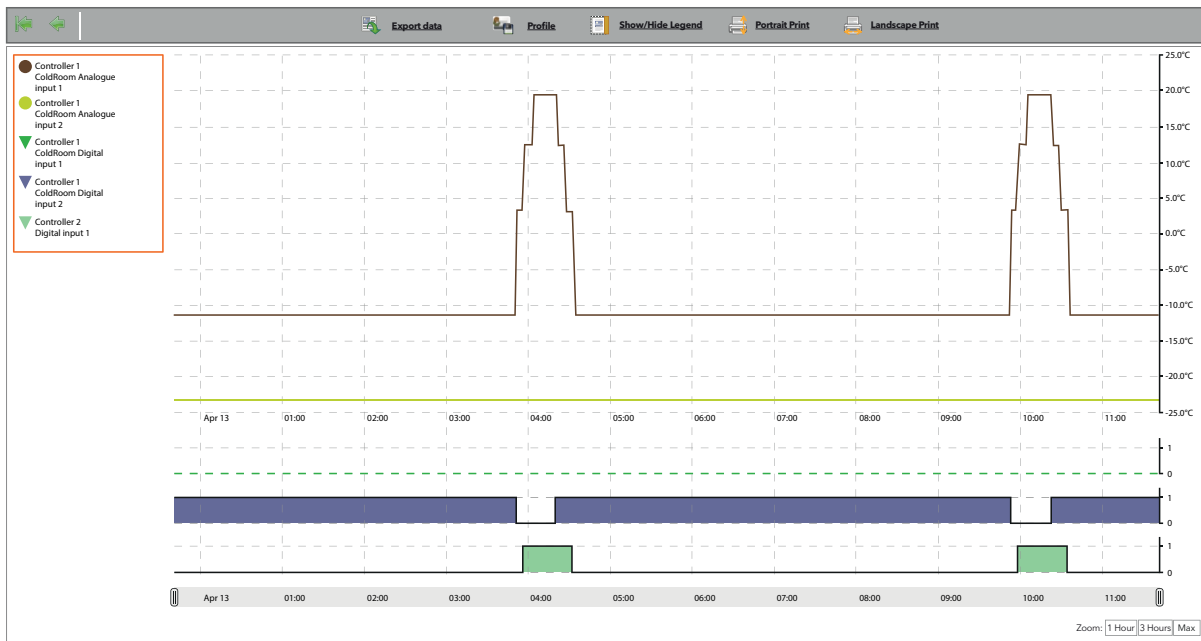
The curve showing how recordings (y-axis) varied over time (x-axis).

In particular, there is a line for each resource selected, showing trends in values over time: note that there is a label on the left that associates a different colour to each resource (e.g.: ● Controller 1 - ColdRoom Input - analog 1).

KEY:

The legend can be shown/hidden by clicking on ▣ (**Show/Hide Legend**).
Each resource is associated to a specific colour and a symbol (● = analog resources; ▼ = digital resources).

Click on the symbol of a resource to hide/show it.

If the hidden resource is an "analogue resource", the relative line on the chart will be hidden and the axes of the read values (one for each unit of measurement up to a maximum of 3) will be sized according to the remaining values.

If the hidden resource is a "digital resource", the chart will disappear and the next resource will occupy the space.

Click on row 1 of the resource name to open a new box with the following items:
- Change colour
- Mark

Change colour:	Used to customise the colour associated to the selected resource.
Mark: (**Digital Resources only**)	Used to view the pink vertical bands (colour unchangeable) which overlap all charts when the selected digital resource is enabled (value ≠ **0**).

READ VALUE AXES (y ordinates):

Click on the value axis to open a new box with the following items:
- Set as default
- Change colour
- Change min/max
- Set bands

Set as default:	Visible only with 2 or 3 value axes and used to view the values in the unit of measurement of the selected axis on the chart.
Change colour:	Used to customise the grid and axis colour.
Change min/max:	Used to customise the min and max values viewed on the value axis.
Set bands:	Used to view a band on the chart (coloured inside or outside) according to the set values A and B (set to the nearest grid value).

👉 **NOTE:** If more than 15 resources have been selected, a yellow box at the top will indicate:
" ⓘ **You have selected more than 15 resources. The chart performance may be critical.**"

The chart shown is interactive: by moving the mouse over the rows of the various resources, the mouse cursor will take the shape ●
(in the same colour as the resource) and:
- Inside the chart: the values and the moment in which they were recorded will be displayed
- In the legend: the values of all resources in their unit of measurement will be displayed

Zoom: Selection boxes to select a specific time band to display are at the bottom right:

| 1 hour | 3 hours | Max |

- **1 hour**: shows graphs for the last hour in the previously selected time interval (see previous page).
- **3 hours**: the charts for the last 3 hours of the selected interval are shown (see previous page).
- **Max**: the charts for the whole selected interval are shown (see previous page).

The interval can be edited by dragging the cursors ||| downwards.

Click on 📄 (**Export data**) to export all data. The application will save data in a **.csv** file (which can be viewed in an electronic spreadsheet like Microsoft Excel) in a user-defined PC.

Click on 🖨 (**Portrait Print**) to print the image of the current page in portrait mode.

Click on 🖨 (**Landscape Print**) to print the image of the current page in landscape mode.

To save the profile and make it available to retrieve later, click the 🖳 icon (**Profile**).

⚠️ **CAUTION**:
Check that the orientation set on the printer used is the same as the type of print selected

7.2.3 ENERGY RESOURCES REPORT

To view historical data for energy resources, go to:

🖥 Data → 🔋 Energy report

The same sequence of pages as described in the Data Archive section will open.
- In step 1, you will be asked to select a profile or define a time interval.
- In step 2, all energy resources in network configurations active during the time interval are listed.
- In step 3, a table listing the values of energy resources, grouped by registration interval, is shown (as illustrated).

⏮ ◀		📄 Export	🖨 Print	🖳 Profile

15 minutes x [9] = 2 hours 15 minutes   Set value

Time of 18/10/2010	0.02:00 Energy Meter Consumption 1 (kWh)
14.31.32	41,7
14.46.32	41,7
15.01.32	41,7
15.16.32	41,7
15.31.15	41,7
15.46.32	41,7
16.01.32	41,7
16.16.32	41,7
16.31.32	41,7
16.46.32	41,7
17.01.32	41,7
17.16.32	41,7
17.22.15	Plant power off
17.23.53	Acquisitions running
17.24.09	41,7
17.39.09	41,7
17.54.09	41,7
18.05.11	Acquisition stopped
18.05.11	System Time Change: -1h
17.05.11	Acquisitions running
17.07.20	41,7

The difference between one row and the next indicates the change in the measurement recorded during the time interval.

Data is initially grouped by registration interval set for the energy resource.

A number greater than or equal to 1 can be entered in the text box as a multiple of the registration time for the energy resources.

The page will automatically calculate the value of the resulting period (this takes about one second).

To confirm the selected grouping period, click **Set value**.

7.2.4 ENERGY RESOURCES CHART

To view the energy resources chart, go to:

🖥 Data → 📊 Energy chart

The same sequence of pages as described in the **historical chart** will open.
- In step 1, you will be asked to select a profile or define a time interval.
- In step 2, all energy resources in network configurations active during the time interval are listed.
- In step 3 the energy resources group will be displayed as described in: **Energy Resources Report**.

7.2.5 REAL TIME ALARMS

Go to:

Alarms → Alarm status

The following screen opens:
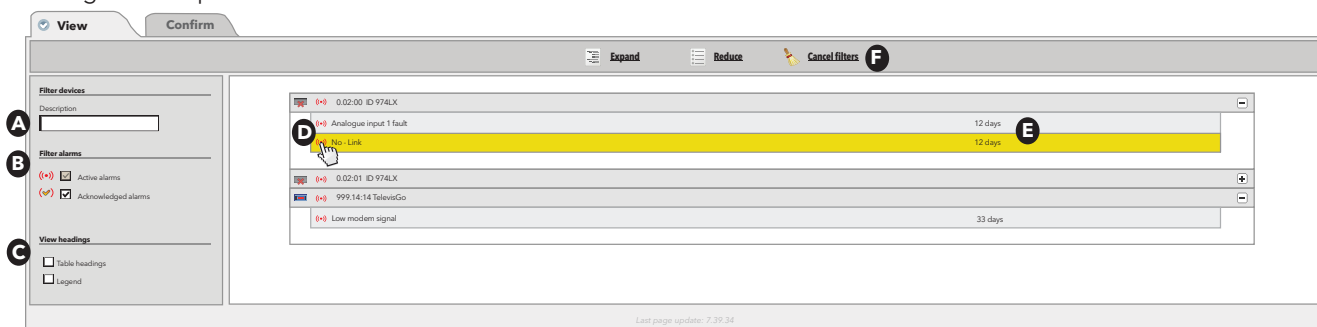
If the data acquisitions have been stopped, it is in any case possible to access the page and using "**start**" it is possible to start the data acquisition.

The page is structured to show the hierarchy of devices and each of their alarm-type only resources, listed below. For active alarms, the last row on the right shows how long the alarm has been active for.

The functions of each part of the interface are:

- (**A**) **Alarm alert**, you can filter alarms by controller name in Description
- (**B**) **Filter devices**, is used to select the alarms by type (active alarms (•), acknowledged (✓))
  (the active alarms cannot be deselected)
- (**C**) **View headings**, to show/hide table headings and key
- (**D**) List of alarm resources present in device, already filtered in (**B**).
  Press the alarm icon (**D**) to access the page with its details.
- (**E**) shows for how long each alarm resource has been active.

The following buttons are presented at the top (**F**):

- (**Expand**): to view alarms for all devices in the list.
- (**Collapse**): to hide alarms for all devices in the list.
- (**Cancel filters**): to restore the display of all alarms and cancel device (**A**) and alarm (**B**) filters.

To acknowledge all alarms present, click **Confirm**. The following window opens:
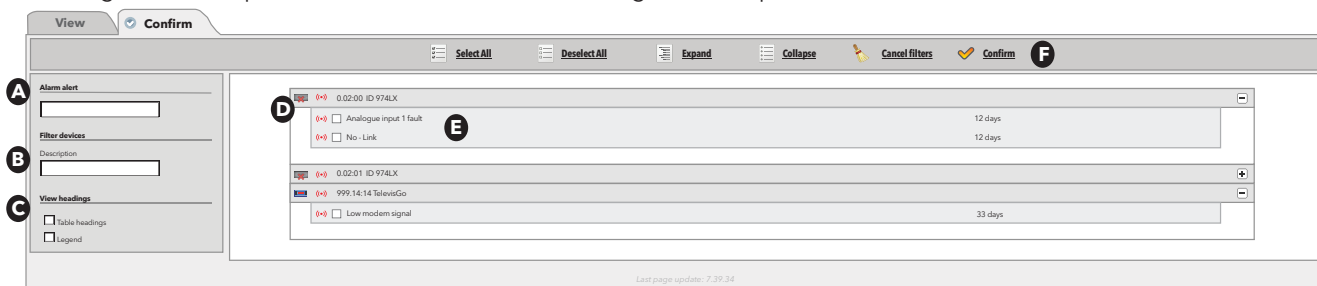
The functions of each part of the interface are the same as for the View page:

- (**A**) **Alarm alert**, is the text that will appear inside all the alarms selected
- (**B**) **Filter devices**, you can filter alarms by controller name in Description
- (**C**) **View headings**, to view/hide table headings and key
- (**D**) List of alarm resources present in device, already filtered in (**C**).

Alarms can be selected using the check box to the left of each alarm (**E**).
The following buttons are presented at the top (**F**):

- (**Select All**): Select all alarms in the list.
- (**Deselect All**): Deselect all alarms in the list.
- (**Expand**): to view alarms for all devices in the list.
- (**Collapse**): to hide alarms for all devices in the list.
- (**Cancel filters**): to restore the display of all alarms and cancel device (**B**) and alarm (**C**) filters.
- (**Confirm**): to confirm selected alarms. Confirmed alarms change icon type (from red to yellow).

☞ Confirming an alarm does not change alarm status; the only related purpose is to alert that the alarm has been viewed (for instance, when there is more than one supervisor, a confirmed alarm means that "someone has already acknowledged it")

The pre-set alarms of the virtual devices are identified by the prefix "**PLC**".

These alarms include:

- **PLC cycle time exceeded**, active if the algorithm cycle time exceeds the set value.
- **PLC error**, active in the presence of a general error.

If the **PLC Error** is active, the user must check the **PLC Error Code** status value to identify the type of active error univocally. See the table below for the error description combined with the value of the **PLC Error Code**.

PLC error code	Description	Description
0	OK	OK
1	Invalid code	Invalid code
2	Wrong tasks number	Wrong tasks number
3	Different target ID	Different target ID
4	Different memory ID	Different memory ID
6	Invalid task header	Invalid task header
7	Invalid task ID	Invalid task ID
8	Datablock patch failed	Datablock patch failed
9	Embedded functions patch failed	Embedded functions patch failed
10	Invalid PLC checksum	Invalid PLC checksum
11	Invalid PLC version information	Invalid PLC version information
12	Embedded functions relocation failed	Embedded functions relocation failed
13	Embedded datablocks relocation failed	Embedded datablocks relocation failed
14	Invalid task configuration	Invalid task configuration
15	Wrong data alignment	Wrong data alignment
16	Memory access patch failed	Memory access patch failed
17	Download request missing	Download request missing
18	Invalid data requirements	Invalid data requirements
257	Division by 0	Division by 0
258	Bad array index	Bad array index
259	Fault	Error
260	Overtime	Overtime
>10000	Windows Socket Exceptions	Error in the standard TCP/IP communication of Windows sockets
20000	PLC runtime timeout. No Answer from TelevisGo within recvTimeout	Runtime has not received an answer from Televis**Go** within **recvTimeout**
20001	Data Transfer communication not established	Communication via Data Transfer with Televis**Go** is not active

The algorithm configuration procedure with Free Studio consists in setting some parameters that characterize the resources of the algorithm. One of these parameters is the type of diagnostics, which can be set to **NONE**, **BASIC**, **FULL**.

If the diagnostic type chosen is **NONE**, the algorithm will have the following resources assigned:

- PLC run
- Start PLC
- Stop PLC

If the diagnostic type chosen is **BASIC**, the algorithm will have the following resources assigned:

- PLC cycle duration
- PLC run
- PLC error
- Start PLC
- Stop PLC

If the diagnostic type chosen is **FULL**, the algorithm will have the following resources assigned:

- PLC cycle duration
- PLC run
- PLC error code
- PLC cycle time exceeded
- PLC error
- Start PLC
- Stop PLC

Start PLC and **Stop PLC** are commands in the menu:
Functions → Commands

For more information, refer to the Free Studio application manual.

7.2.6 ALARM HISTORY

Historical data can be viewed in table format in the various ways described below.
To access and view the page, go to:

Alarms → Alarm history

The following screen opens, depending on the interval:

<table>
<tr><td>

Time intervals

◉ Quick

[Last hour ▾]

○ Custom

☐ Include suppressed alarms too

</td><td>

Select Default **interval**

Select a relative (**Quick**) or absolute range
(**Custom**). In the first case there is a series of default intervals
which count from now backwards (1, 2, 3, 6, 12 hours, 1 or
2 days). In the latter case, the start/stop date/time must be specified.

Overridden alarms can be included by clicking the appropriate check box.

</td></tr>
</table>

Click ➡ to go to the next page. The next window shows all the alarms in the selected period:

E — Export — Cancel filters

A Time interval
Type: Last hour
From: 21/07/2010 15:44:18
to: 21/07/2010 16:44:18

Devices
B [ ]

Resources
C [ ]

D		Device	Code	Alarm	Start	Suppressed	End	Duration
	((•))	999.14:14 TelevisGo	ALM99998	Modem signal strength low	18/06/10 16.27.41			
	((•))	0.02:01 ID 974LX	ALM00300	NOLINK	09/07/10 9.46.43			
	((•))	0.02:00 ID 974LX	ALM00300	NOLINK	09/07/10 9.46.49			
	((•))	999.14:14 TelevisGo	ALM99999	Acquisitions stopped	20/07/10 16.11.18		21/07/10 16.11.20	1 day

Page last update on: 7.39.34

👉 **CAUTION: In this case, you can only select the time range not the device.**

The functions of each part of the interface are:
- (**A**) **Time interval**, to specify the period of time covered.
- (**B**) **Devices**, allows you to filter by device name.
- (**C**) **Resources**, is used to filter by resource name.
- (**D**) shows details of alarms:
  - box to the left of the alarm icon:
    - WHITE: shows that no "**Alarm alert**" has been entered.
    - YELLOW: YELLOW: shows that an "**Alarm alert**" has been entered.
  - alarm icon:
    - RED ((•)) if there is at least one active alarm.
    - GREEN ((•)) if there is an acknowledged alarm.
  - **Device**: device name.
  - **Code**: device code.
  - **Alarm**: alarm name.
  - **Start**: alarm start date/time.
  - **Overridden**: indicates how long after the alarm it was overridden.
  - **End**: date/time alarm ended.
  - **Duration**: indicates how long the alarm lasted.

The following buttons are presented at the top (**E**):
- 🗎 (**Export**): saves data to PC as a **.csv** file (which can be opened using Microsoft office excel).
- 🧹 (**Cancel Filters**): to restore the display of all alarms and cancel the device (**B**) and resource (**C**) filters.

👉 **NOTE:** The "**Alarm alert**" can be entered/edited also inside the alarm
(double click on the alarm icon to edit the relative field.

7.2.7 DOWNLOADING DATA

To download the data or alarm history, in sequence go to:

      📊 **Data**   →   🔵 **Historical table** (Extraction of data from the Historical table)

      📊 **Data**   →   🔵 **Historical chart** (Extraction of data from the Historical chart)

      📊 **Data**   →   🟢 **Energy report** (Extraction of data from the Energy report)

      📊 **Data**   →   📗 **Energy chart** (Extraction of data from the Energy chart)

      📶 **Alarms**   →   🔵 **Alarm history** (Extraction of data from the Alarm history)

In all 3 cases, click the icon 📄 (**Export**). On clicking, the device saves data for the selected period to PC as a **.csv** file (which can be opened in Microsoft Office Excel).
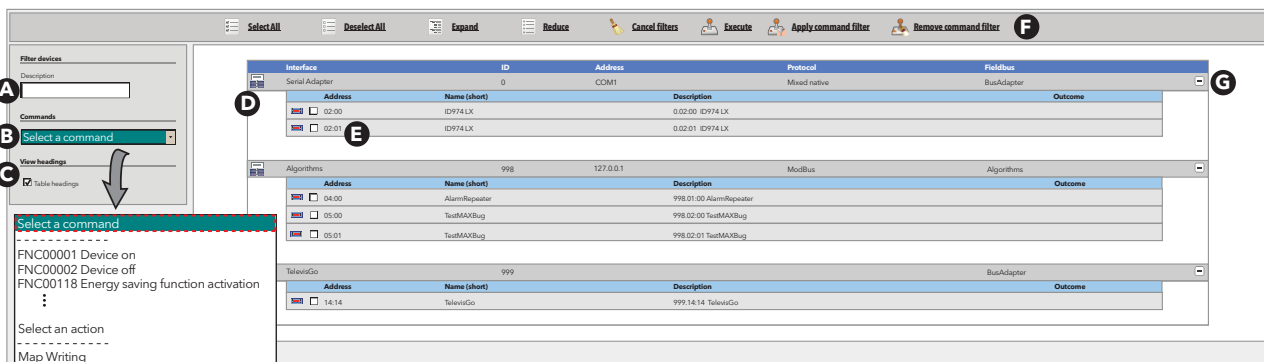
7.2.7.3 NETWORK COMMANDS FOR DEVICES

7.3.1 COMMANDS

To <u>send</u> commands to devices, in sequence go to:

      🛠 **Functions** → 🎮 **Commands**

The following screen opens:

The following controls will be visible:
- (**A**) **Filter devices**, is used to filter by device description
- (**B**) **Commands**, selects the command or action to be sent to the device
  (the list represents the grouping of all commands available on all instruments in the network with the actions for writing parameters or "Manual Execution" map (if present) set within "Scheduled activities")

  👉   **NOTE:** the list of actions can be found at the end of all available commands.

- (**C**) **View headings**, is used to show/hide the headers
- (**D**) displays the list of network devices grouped by interface.
- (**G**) expand/hides the devices in an interface.

Devices can be selected using the relative check box to the left of the address (**E**).

The following buttons are presented at the top (**F**):
- 📋 (**Select All**): Select all devices in the list.
- 📋 (**Deselect All**): Deselect all devices in the list.
- 📋 (**Expand**): to view the devices of all interfaces in the list.
- 📋 (**Reduce**): hides the devices in all list interfaces.
- 🖌 (**Cancel filters**): restores the display of all devices and cancels the Filter devices.
- 🎮 (**Execute**): sends the selected command to the selected devices.
- 🎮 (**Apply command filter**): can be used to hide non-applicable commands for the selected controllers.
  If enabled, the icon 🔽 below (**B**) on the left appears.
- 🎮 (**Remove command filter**): removes a filter applied previously.

If an action is selected in box (**B**), it will automatically select all the instruments matching the characteristics of the filter set within that action.

> **NOTE:** other instruments can still be selected/deselected.

To view only the instruments for which an action is running, press the button 🕹 (**Apply command filter**).
If you wish to remove the filter enabled previously, press the button 🕹 (**Remove command filter**).

When the instruments have been selected, press the button 🕹 (**Execute**) and the Televis**Go** will execute the selected action.

NOTE: writing many parameters causes an increase in execution time.

Once execution is complete, the following screen will appear:
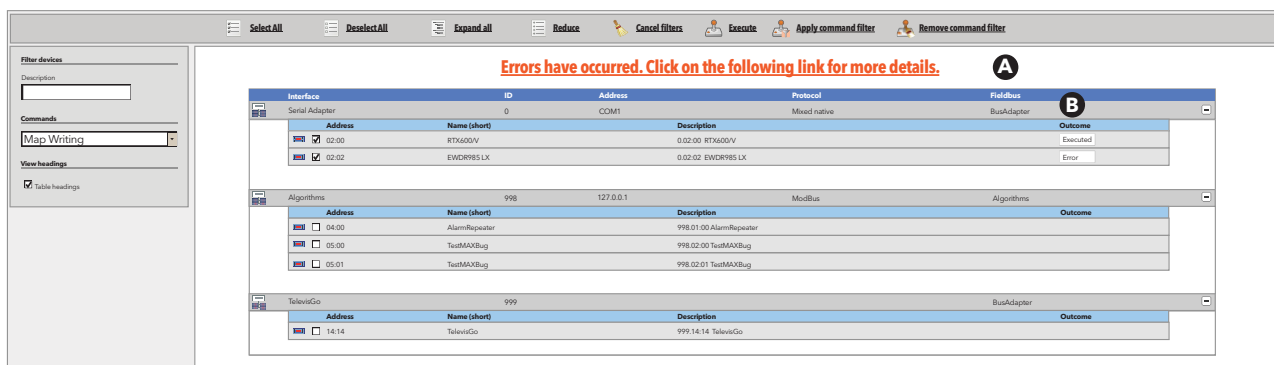
The following information will be displayed:
- (**A**) a sentence informing the user that errors have been detected in during execution of the action.
  Click on it to open a new window showing the full list of errors detected.

  > **NOTE**: the sentence will only be displayed when errors are present during execution.

- (**B**) the **Outcome** column containing, for the selected instruments, boxes with the text:
  - **Executed**: if the action was carried out successfully
  - **Error**:   if the action was not carried out successfully.

If execution is **NOT** completed successfully and errors are present, click on one of the boxes in the **Outcome** column (**B**) displaying the text "**Error**"; a yellow box (**C**) will open, showing a list of errors detected.
If you move the mouse, the box will disappear.

> **NOTE:** If the number of errors detected is greater than **5**, after the first 5 errors a sentence will appear containing the number of errors not shown (**2** in the example provided in the figure); click on it to open a new window showing the full list of errors detected.
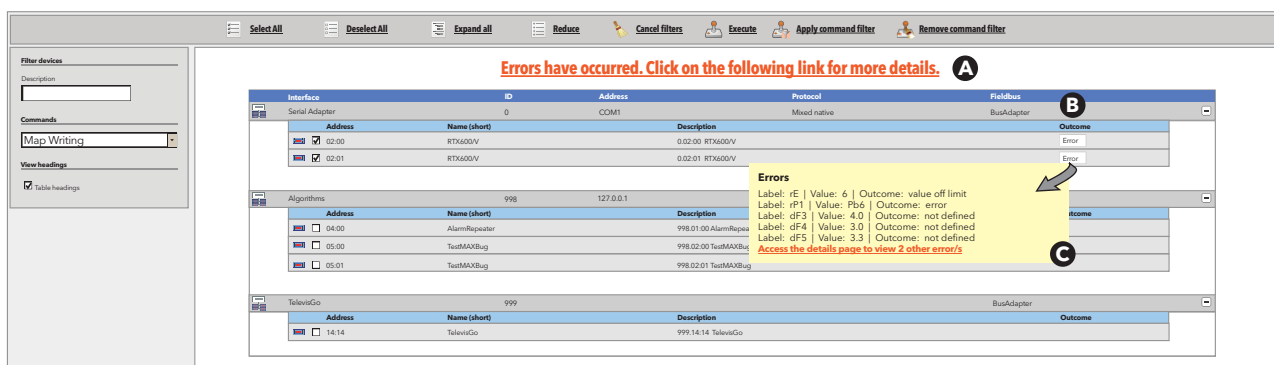
To view the full list of errors, click on the sentence (**A**) or on the sentence in the box (**C**); the following screen will appear:

🖨 **Print**   **C**

Address: 0.02:00 - Description: RTX600/V - Name: **A**

Label	Description	UM	Min	Max	Set	Device	Value	Outcome
rE	Type of setting	num	0	4	0	0	6	value off limit
rP1	Thermostat 1 temperature regulation probe		0	7	6		Pb6	error
dF3	---	---	---	---	---	---	4.0	not defined
dF4	---	---	---	---	---	---	4.0	not defined
dF5	---	---	---	---	---	---	4.0	not defined
dF6	---	---	---	---	---	---	4.0	not defined
dF7	---	---	---	---	---	---	4.0	not defined

Address: 0.02:01 - Description: RTX600/V - Name:

Label	Description	UM	Min	Max	Set	Device	Value	Outcome
rE	Type of setting	num	0	4	0	0	6	value off limit
rP1	Thermostat 1 temperature regulation probe		0	7	6		Pb6	error
dF3	---	---	---	---	---	---	4.0	not defined
dF4	---	---	---	---	---	---	4.0	not defined
dF5	---	---	---	---	---	---	4.0	not defined
dF6	---	---	---	---	---	---	4.0	not defined
dF7	---	---	---	---	---	---	4.0	not defined

The screen displays:

- (**A**) The data for the instrument on which the errors have been detected.
    - address
    - description
    - name assigned to the instrument.

- (**B**) The list of errors detected. It contains the following information relating to each error:
    - parameter label
    - description
    - unit of measure
    - default value
    - value set on the instrument
    - value the action attempted to write
    - type of error detected

- (**C**) The button 🖨 (**Print**) which can be used to print the full error report.

7.3.2 PARAMETERS

⚠️ **CAUTION**:
A parameter map is not available for alldevices.
This function is not accessible for these devices.

To **Read and Write** the parameters of individual devices, in sequence go to:

🔧 **Functions → 📋 Parameters**

The following screen opens:

The following controls will be visible:

- (**A**) **Filter devices**, is used to filter by device description
- (**B**) views the list of network devices grouped by interface.
  Controls present are those for each single device.
- (**E**) expands/hides the interface devices.

The following buttons are presented at the (**D**):

- 📑 (**Expand**): to view the devices of all interfaces in the list.
- 📋 (**Reduce**): to hide all the devices of the interfaces in the list.
- 🧹 (**Cancel filters**): restores the display of all devices and cancels the Filter devices.

It is possible to access the parameters of a specific device clicking on the controller row (**C**).

👉 **NOTE:** Only one device can be selected at a time.

👉 **NOTE:** If the selected device is real, see the "Parameters for real resources" paragraph.
If the selected device is virtual, see the "Parameters for virtual resources" paragraph.

7.3.2.1 Parameters for real resources

The following controls will be visible:

- (**A**) **Selected device**, identifies the Address, Description and Name of the selected device.
- (**B**) **Commands**, selects the command to send to the device
  (the list groups together all commands available for all network devices).
- (**C**) **Parameter filters 1**, used to filter the parameters by group, Label or Description.
- (**D**) **Parameter filters 2**, there are three pairs of check boxes, each with a different function:
  - **Checked rows/Unchecked rows(*)**: filters the checked or unchecked rows.
  - **Empty values/Filled values(*)**: filters the rows with or without user values entered.
  - **Valid data/Invalid or missing values(*)**: filters the rows with or without valid data.
- (**E**) **Legend**, to distinguish between editable parameters and NON-editable parameters.
- (**F**) **Load parameter map**, to load a map from file. Click on Browse to open a window to
  select the file.
- (**G**) list of parameters (filtered or not).

(*****) If both check boxes are clicked, all rows are shown. If both check boxes in a pair are deselected, the table will be empty.

Parameters can be selected using the relative check box to the left of the label (**I**).
The values can be set in the text box **Input** (**L**).

The following buttons and drop-down menus (**H**) are presented at the top:

- `0.00:04 EWDR 985` (**Select tool**): allows the user to select one of the network tools and display the relative parameters.

- (**Select all**): selects all the parameters displayed.

- (**Deselect all**): deselects all the parameters displayed.

- (**Copy from default**): copies default values in the "Input" column.

- (**Copy from device**): copies the values currently read by the device in the "Input" column.

- (**Read**): can be used to read the value of the selected parameterssaved on the device.

- (**Write**): used to write the values in the "Input" text boxes in the selected devices.

- (**Save parameter map**): used to save the parameter map with the new values entered.

- (**Load parameter map**): loads a parameter map previously saved to disk, selected using
  the relevant box (**E**).

- (**Cancel filters**): cancels any previously set filters (**B**).

- (**Execute**): will send the selected command to the selected devices.

- (**Print**): the parameter map you are working on.

7.3.2.2 Parameters for virtual devices

The following controls will be visible:

- (**A**) **Selected device**, identifies the Address, Description and Name of the selected device.
- (**B**) **Commands**, selects the command to send to the device
  (the list groups together all commands available for all network devices).
- (**C**) **Parameter filters 1**, used to filter the parameters by group, Label or Description.
- (**D**) **Parameter filters 2**, there are three pairs of check boxes, each with a different function:
  - **Checked rows/Unchecked rows(*)**: filters the checked or unchecked rows.
  - **Empty values/Filled values(*)**: filters the rows with or without user values entered.
  - **Valid data/Invalid or missing values(*)**: filters the rows with or without valid data.
- (**E**) **Legend**, to distinguish between editable parameters and NON-editable parameters.
- (**F**) **Load parameter map**, to load a map from file. Click on Browse to open a window to
  select the file.
- (**G**) The **UM** column displays an icon that identifies the type of filter:
  - **Master filter:** rule to select the devices on which the algorithm works.
  - **Subsidiary Input Filter:** rule to select an input resource on which the algorithm works.
  - **Subsidiary output filter:** rule to select an output resource on which the algorithm works.

The master filter and subsidiary filter act independently of each other.

The types of output resources are a subset of the types of input resources; as output resources only network parameters and commands can be set. In the algorithm design phase the Free Studio application allows to disable the master filter and/or subsidiary filter writing. In this case the filter becomes of the read-only type.

- (**H**) The **MIN** column shows:
  - for the master filters, the minimum number of devices which is always 0;
  - for the subsidiary filters, the minimum number of resources so that a subsidiary filter returns an output (MIN = 1).
- (**I**) The **MAX** column shows:
  - for master filters, the maximum number of devices that can be selected with the filter;
  - for subsidiary filters, the maximum number of resources that can be selected with the filter (MAX = 10).

For the subsidiary filters, the ***** symbol in the **MAX** field indicates no maximum limit.

If the set minimum number is higher than the set maximum number, the group of elements obtained is empty.

It is possible to display the filter loaded by the designer clicking the hyperlink **displayed** in the **Default** column (**J**).
Parameters can be selected using the relative check box to the left of the label (**L**). If a parameter is selected, the **set** hyperlink in the **Input** box (**K**) is enabled to set a filter. If a filter is changed, the corresponding **input** box (**K**) shows the **edit** hyperlink that replaces the **set** hyperlink.

The following buttons and drop-down menus (**M**) are presented at the top:

- `0.00:04 EWDR 985▼` **Select devices**: allows the user to select one of the network tools and display the relative parameters.

- **Select all**: selects all the parameters displayed.

- **Deselect all**: deselects all the parameters displayed.

- **Copy from default** copies default values to the "Input" column.

- **Copy from device**: copies the values currently read on the device in the "Input" column.

- **Read**: used to read the value saved on the device of the selected parameters.

- **Write**: used to write the values entered in the "Input" text box in the selected devices.

- **Save parameter map**: used to save the parameter map with the new values entered.

- **Load parameter map**: loads a parameter map previously saved to disk, selected using the relevant box (**E**).

- **Cancel filters**: cancels any previously set filters (**B**).

- **Execute**: sends the selected command to the selected devices.

- **Print**: the parameter map you are working on.

If the **set** hyperlink of a master filter is clicked, a screen like this will appear:

Edit Device Filter

📁 **Language**	English ▼	**Add selector**
⚙ Selector		⬆ ⬇ ✚ 📝 ▬
Interface ID="0"		✚ 📝 ▬
Device Address="00:0?"		✚ 📝 ▬
Resource Name="*2*" Type="analog"		📝 ▬

💾 Save   🚫 Cancel   📋 Copy from default **A**

The filter can be set or modified from this window.

The 📋 button (**Copy from default**) (**A**) copies the default structure of the filter with its specific parameters.
The selection and rule hierarchy is shown on the left.

The icons beside each row have the following meanings:

Icon	Meaning
⬆	Move the selector up a position.
⬇	Move the selector down a position.
✚	Add a child rule (selector > interface; interface > device;device> resource)
📝	Modify selector or rule
▬	Delete selector or rule and all sub-rules.

A filter consists of at least one selector. Each selector identifies a specific sub-group of resources and can be additive or subtractive. An additive selector adds the resources it has filtered to the final assembly whereas a subtractive selector removes the resources it has filtered. Selector order is therefore significant.
A subtractive filter only makes sense when used to filter the result of the additive filter before it.

To modify a selector, click the relative 📝 icon. For more information on the boxes that appear on the right side of the screen see the **Filter** sub-paragraph in section **Installation/Maintenance**.

If the **set** hyperlink of an input subsidiary filter is clicked, a screen like this will appear:

Edit Subsidiary Input Filter

Type
☐ Analog
☐ Digital
☐ State
☐ Alarm
☑ Parameter

ID [   ]

Name [   ]

Label [   ]

ⓘ Warning: The electronic devices could be damaged by too frequent EEPROM parameters writings.

💾 Save   🚫 Cancel   📋 Copy from default Ⓐ

The filter can be set or modified from this window.

The 📋 button (**Copy from default**) (**A**) copies the default structure of the filter with its specific parameters.

The **Type** field can have the Analogue (analogue source), Digital (digital resource), Status (status resource), Alarm (alarm resource) and Parameter values. If Parameter is selected, the **Label** box appears: it is possible to select the input resource by typing in the **Label** box the numbers that identify it according to the Eliwell standard (the selection is case-sensitive).

The **ID** field filters the resources by their identification number. It only accepts specific combinations of characters, numbers and ? (question mark) and * (asterisk) can be used. The ID of a resource consists of 3 upper case letters, 5 numbers followed by a hyphen or other text. For example: INP40001-1, ALM00300.

The **Name** field filters resources by their name translated in the language selected in the previous step. Jolly characters ? (question mark) and * (asterisk) can be used.

Once all changes have been made to selector properties, click 💾 (**Save**).

If the **set** hyperlink of an output subsidiary filter is clicked, a screen like this will appear:

Edit Subsidiary Output Filter

Type	☑ Parameter
	☐ Command
ID	
Name	
Label	

ⓘ Warning: The electronic devices could be damaged by too frequent EEPROM parameters writings.

💾 Save   🚫 Cancel   🗐 Copy from default Ⓐ

The filter can be set or modified from this window.

The 🗐 button (**Copy from default**) (**A**) copies the default structure of the filter with its specific parameters.

The **Type** field may have Parameter or Command values.
If Parameter is selected, the **Label** box appears: it is possible to select the output resource by typing in the **Label** box the numbers that identify it according to the Eliwell standard (the selection is case-sensitive).

The **ID** field filters the resources by their identification number. It only accepts specific combinations of characters, numbers and ? (question mark) and * (asterisk) can be used. The ID of a resource consists of 3 upper case letters, 5 numbers followed by a hyphen or other text. For example: INP40001-1, ALM00300.

The **Name** field filters resources by their name translated in the language selected in the previous step. Jolly characters ? (question mark) and * (asterisk) can be used.

Once all changes have been made to selector properties, click 💾 (**Save**).

7.3.3 RVD

To **Access** this function, go to:

🔧 **Functions** → 📋 **RVD** (Remote Virtual Device)

The following screen opens:
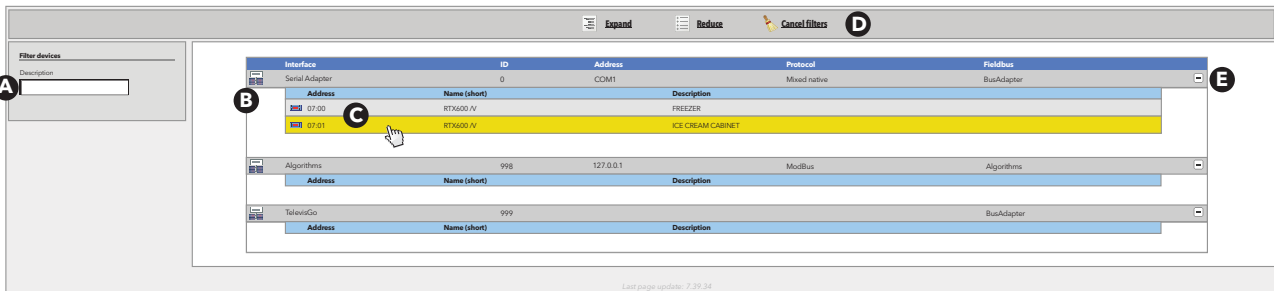
The following controls will be visible:

- (**A**) **Filter devices**, is used to filter by device description
- (**B**) views the list of network devices grouped by interface.

  👉 **NOTE**: only the devices where the function exists and is activated will be displayed.

- (**E**) expands/hides the interface devices.

The following buttons are presented at the (**D**):

- 📋 (**Expand All**): to view the devices of all interfaces in the list.
- 📋 (**Collapse All**): hides the devices on all interfaces in the list.
- 🧹 (**Cancel filters**): displays all the devices again and cancels the Filter devices.

It is possible to access the RVD screen of a specific device clicking on the controller row (**C**).

👉 **NOTE:** Only one device can be selected at a time.

A picture of the selected device will be shown:
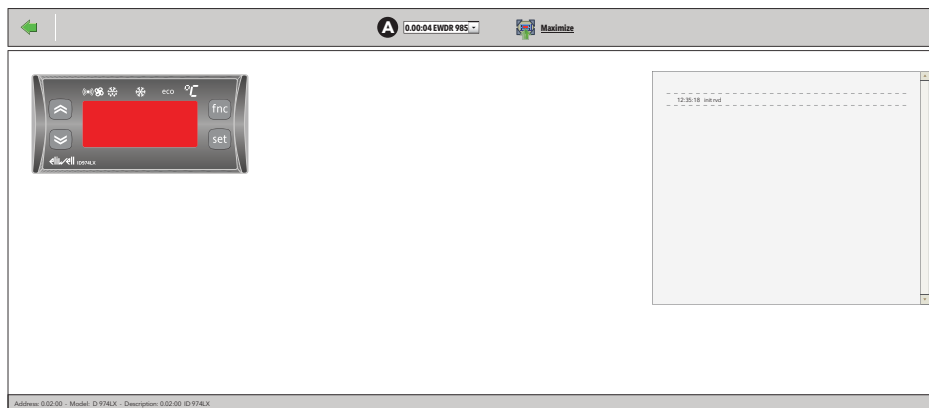
The following buttons and drop-down menus (**A**) are presented at the top:

- `0.00:04 EWDR 985 ▼` (**Select devices**): used to select one of the network devices (if this function exists and it is enabled for the specific device) displaying the RVD.
- 🖥 (**Maximize**): enables full screen display.
- 🖥 (**Restore**): restores normal viewing.

The leds and display shown on the screen are the same as the actual device. The various operations run on the device on screen (click on the buttons, view the active leds, etc.) are equivalent to working directly on the device.

⚠️ **CAUTION:**
the RVD function is available only for some devices.
Device families compatible with Televis**Go** are listed in the file "**TelevisGo_DriverList.pdf**" in Televis**Go** in the directory "**C:\Eliwell\Manuals**" accessible from a desktop link and in the website **www.eliwell.com**.

7.3.4 LAYOUT

To **Access** this function, go to:

⚒ Functions → ⊞ Layout

The following screen opens:

Pressing the button 🖫 (**Regenerate Layouts**), based on whether the "Layout Configurator" software used is the one preloaded in Televis**Go** or on an external PC, behaviour changes and we will have that:

- **Layout Designer on external PC**:

    Pressing 🖫 (**Regenerate Layouts**) only upgrades the layout list uploaded in the system upgrading page:

    🖥 Computer → 🛠 Update → 🖫 Layout pages

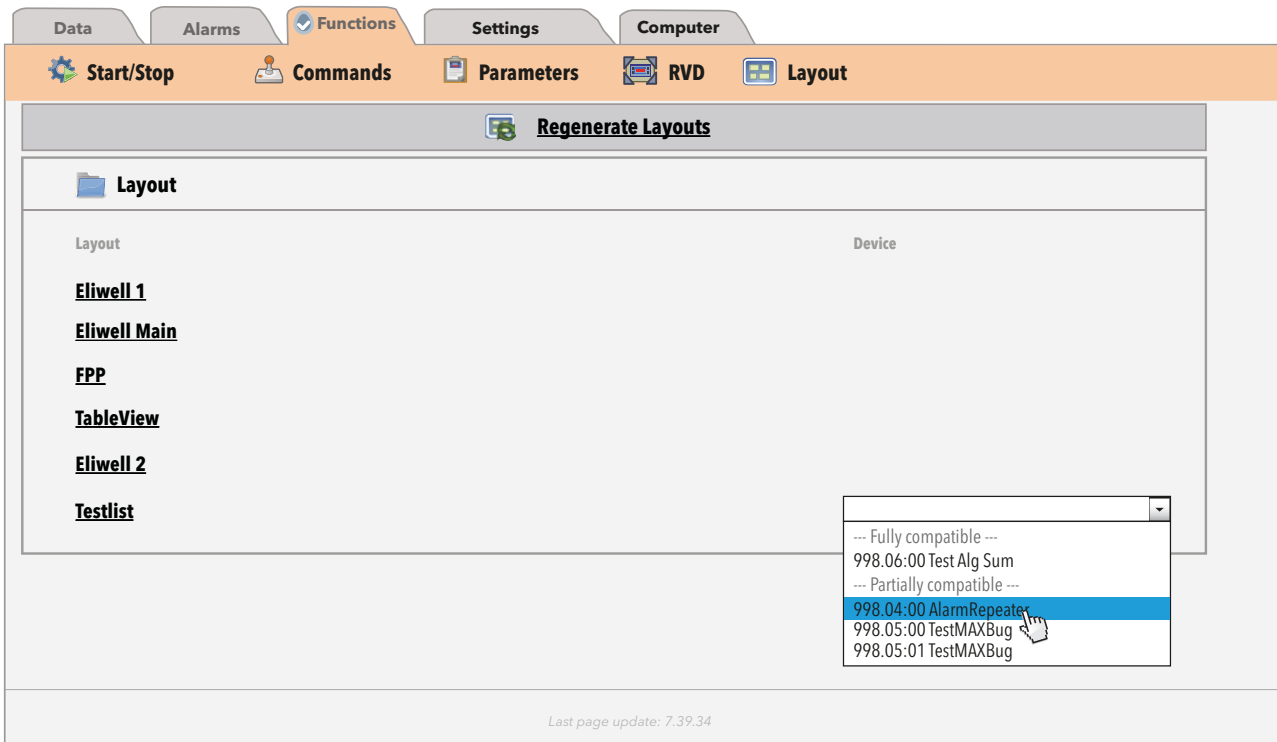   If I modify a Layout or create a new one, I must reload it on the system upgrading page or Televis**Go** will not be able to see it.

- **Layout Designer preloaded in** Televis**Go**:

    Pressing 🖫 (**Regenerate Layouts**) will upgrade all layouts present (Televis**Go** imports any changes made to a layout) and any new layouts will be loaded.
    In this case, you do not need to load them using the system upgrading page.

By pressing one of the names in the list you can display the layout associated to it.

⚠️ **IMPORTANT**:
If the layout is parametric (valid to a number of tools that are the same and can only be selected individually), on the right there will be a box with a drop-down menu from which the user can select the tool to be displayed.

In the drop-down box, the devices will be subdivided as shown below:
- **Fully compatible:** (The devices will be displayed at the beginning of the list)
    They are controllers whose resources match those in the layout.
- **Partially compatible:** (The devices will be displayed at the end of the list)
    They are controllers, whose resources match only partially those in the layout.
- **Incompatible:** (The devices will be displayed)
    They are controllers whose resources do not match those in the layout.

The same pull-down menu will also be available in the layout screen, and allows the user to switch tools by simply by selecting the one required.

Pressing ⬅ allows you to go back to the previous page and display the list of layouts available.

Example 1	Example 2 (Parametric layout)
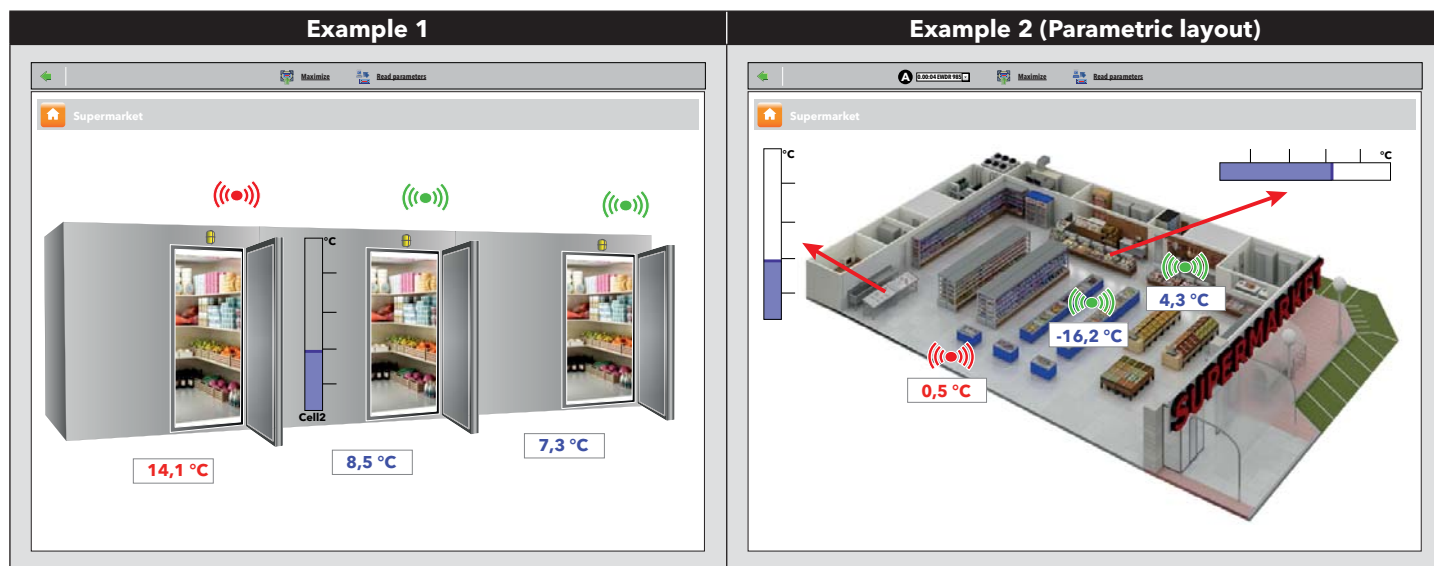
The following buttons appear at the top of generic layout screens:

- 🖥️ (**Maximize**): enables full screen display.
- 🖥️ (**Read parameters**): forces reading of parameters displayed.

The following buttons and drop-down menus (**A**) appear at the top of parametric layout screens:

- `0.00:04 EWDR 985` (**Select devices**): allows the user to select one of the similar tools present in the network.
- 🖥️ (**Maximize**): enables full screen display.
- 🖥️ (**Read parameters**): forces reading of parameters displayed.

⚠️ **CAUTION**:
Parameters are **ONLY** upgraded when you open a Layout screen.
To upgrade values displayed manually, press 🖥️ (**Read parameters**).

👉 **NOTE**:
On placing the mouse pointer on an item, a window appears containing its characteristics.

👉 **NOTE: Writing parameters.**
Boxes displaying parameter values are text boxes.
As such, to change a value, select it with the mouse, modify it and press "enter".
If a valid value is entered (belongs to that parameter's range), a green message "DONE" will appear above the text box; on the contrary, a red "ERROR" message will appear.
At this point press 🖥️ (**Read parameters**) to update the displayed values.

7.3.5 SELECT LANGUAGE

To change the set language, click on the icon 🔷 in the bottom right-hand corner of the screen.
The screen opening is the login (access page):

Change the language in "**User interface language**" and login again with your User name and Password.

8. SYSTEM UPGRADE AND BACKUP METHODS

8.1 SYSTEM UPGRADE

The various sections of the system can be updated by loading the relative update files.
To upgrade the system, go to:

Computer → Upgrade → TelevisGo

To access some windows and view their contents, stop the data acquisition using **Edit.**

The following screen appears:
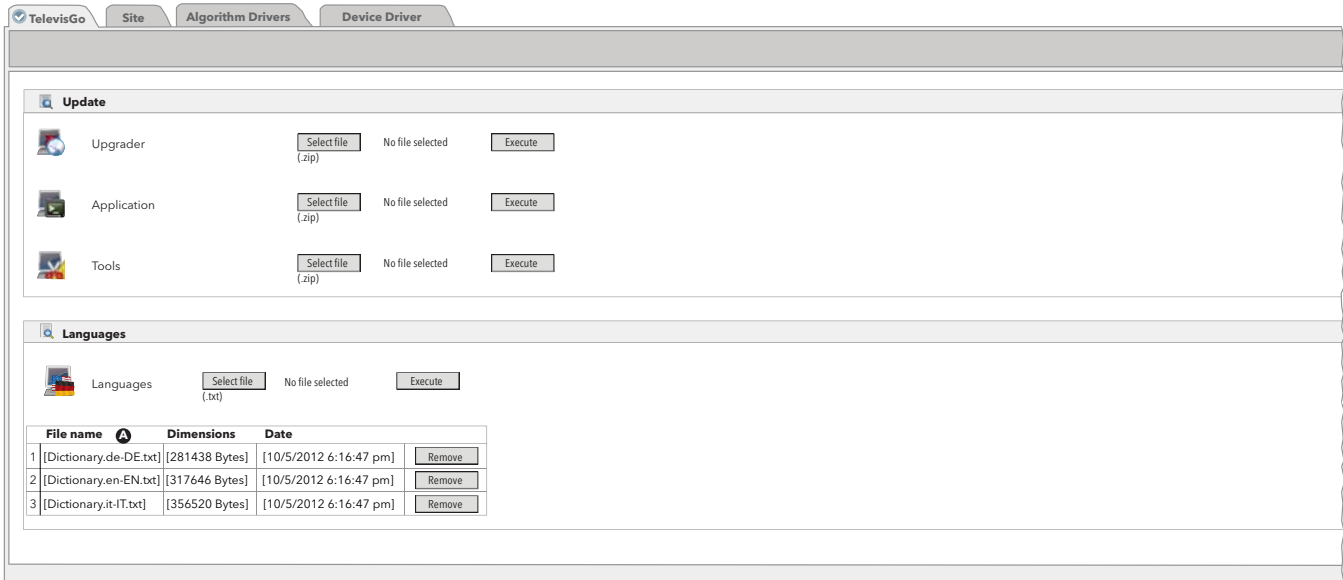
In this, the following updates can be made:

- **Upgrader** (*): the application managing the Televis**Go** upgrades.

    CAUTION:
    upgrade packages downloaded from the **Eliwell** website (www.eliwell.com) as well as system files:

    1. **Do not contain**:
        - dictionaries (to avoid overwriting local changes), to be upgraded separately manually
        - notification message customisation files (to avoid overwriting local changes)
    2. **They contain**:
        - Drivers upgrade

        NOTE:
        following a system thus driver upgrade, the system could require you to carry out a new network recognition. If that should happen, a warning icon (⚠) appears in the status bar at the bottom if you have already entered or in the Login window if access credentials have not yet been entered.

- **Application** (*):   updates the Televis**Go** Application
- **Tools** (*):   upgrades/uploads the software applications "Offline Configurator" and "Layout Designer".
- **Languages**   upgrades/uploads the Televis**Go** system glossaries.

To upgrade the plant, go to:

🖥 **Computer** → 🖥 **Upgrade** → ✓ **Plant**
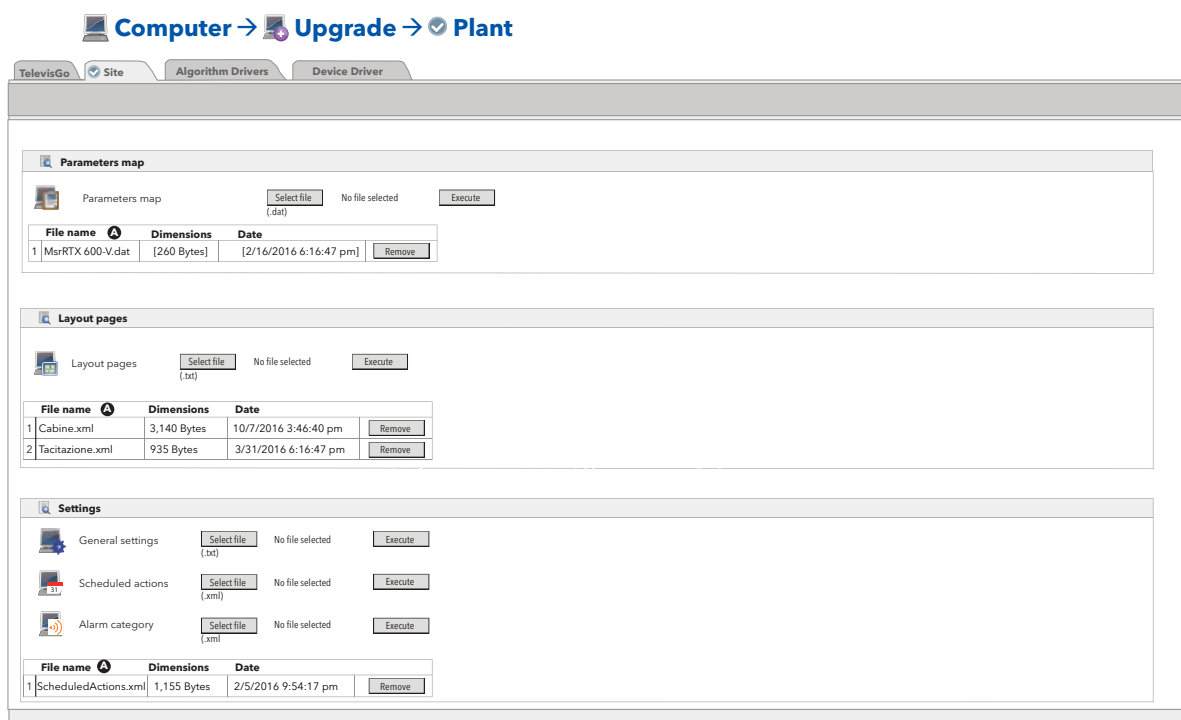
In this, the following updates can be made:

- **Parameter map**: allows the uploading of a map to be used for regular activities.
- **Layout pages**: used to upload one or more layout pages (see section "Layout").
- **General settings**: the procedure uses the file "Forced_setting.txt".
- **Scheduled actions**: used to upload an XML file containing a series of scheduled activities set using the Offline Configurator (see section "Software Applications").

  👉 The upload overwrites any previous settings, so before uploading the file you are advised to make a backup copy of the existing settings (see sections "System Restore and Backup" and "Scheduled Tasks - Advanced Settings").

- **Alarm categories**: used to upload an XML file containing the network alarm action rules set using the Offline Configurator (see section "Software Applications").

  👉 The upload overwrites the previous settings, so before uploading the file you are advised to make a backup copy of the existing settings (see section "System Restore and Backup").

To update the algorithms, go to:

🖥 **Computer** → 🖥 **Update** → ✓ **Algorithms drivers**
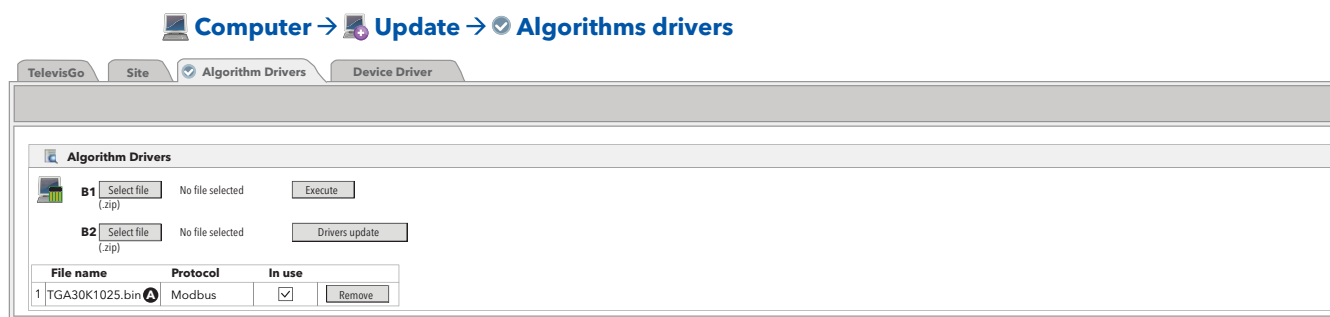
In this, the following updates can be made:

- **Algorithms drivers** (**) updates/uploads the algorithms implemented with the Free Studio programming environment in IEC61131 language.

In this section it is possible to upload a new algorithm or update an algorithm already uploaded.

👉 To determine if an algorithm must be loaded as new or needs to be updated, refer to the algorithm model (see Algorithm selection):
- if the model is not in the list, refer to row **B1**;
- if the model is in the list, refer to row **B2**.

To upload a new algorithm, press **Browse** in row **B1**, scroll through the folders (directories) to search for the file to run, and select it. After clicking **Execute**, if an algorithm is uploaded the software automatically opens the Algorithms window (see Algorithm selection).

To update a driver of an algorithm already loaded, press **Browse** in row **B2**, scroll through the folders (directories) to locate the file, and select it. After clicking **Drivers Update**, if the algorithm has been updated the software automatically opens the algorithms window (see Algorithm selection).

To update the device drivers, go to:

 Computer → **Update** → **Device drivers**

In this, the following updates can be made:

- **Device drivers** (*): used to upload a file for a new network device.
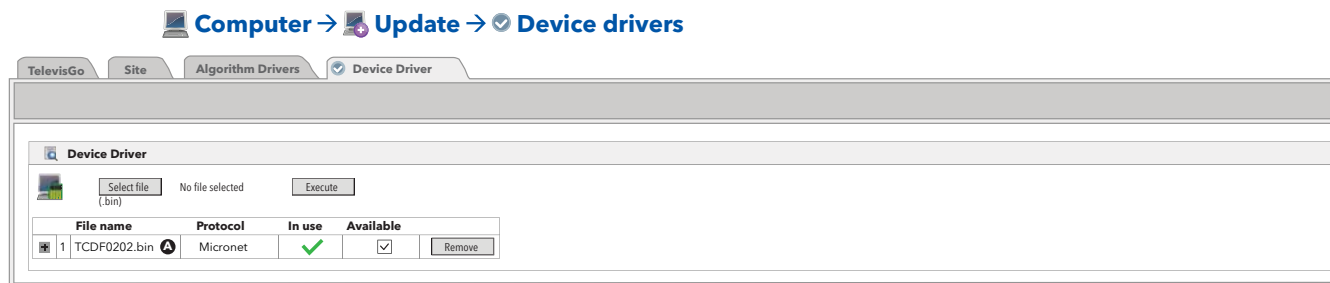
  CAUTION!:
  Installing a new driver overwrites any existing driver, so before uploading the file you are advised to make a backup copy of the existing settings (see section "System Restore and Backup").

(*) **NOTE**: The files to be loaded MUST be supplied by Eliwell.

(**) **NOTE**: The files to be uploaded MUST have been compiled by the Eliwell Free Studio application.

Below each item you will find the version name and date and other information concerning the currently loaded file/driver. Press Remove to remove the relative setting file/driver.

In box **A** of the upgrade, the name of the file to be uploaded will appear.

To upload, press **Browse**, scroll through the folders (directories) to search for the update file and select it.

Pressing ➕ for each driver, a list will appear indicating which devices are contained in the driver.

Now click **Execute** to run the upgrade.

NOTE: Pay attention to the file extension that can be used for each type of update. (written in the bottom left-hand corner under box **A**).

NOTE: The execution of an existing algorithm generates the message "The algorithm is already present". Use "Update" to replace it with the new version" preceded by the icon ⓘ

8.2 UPDATE LICENSE

You will also be able to upgrade the license number (it may be necessary to request a new
key if you wish to increase the maximum number of devices or purchase new operating functions).
To do so, go to:

🖥 Computer → 🔴 Update license

Enter the "Current code", then the "New code" (**A**) (supplied by Eliwell) in the page that appears and click the "**Start update**"
button. If the entered code is wrong an error message will be created.

🔍	**Update license**
Current code	2MBQB6ATASMJQQMYAB35BPM4YRRJQ
New code	[ ] **A**
	Start update

8.3 REBOOT

Having updated an Upgrader, Application, Functions, Languages, Algorithms, Drivers, Licence, you must reboot the TelevisGo
software to implement the updates. To do so, go to:

🖥 Computer → 🖥 Reboot

and press **Reboot**.

NOTE: **This procedure involves the disconnection of TelevisGo.**
If the login page does not appear automatically in a few minutes, enter the TelevisGo IP address in the
browser to reconnect.
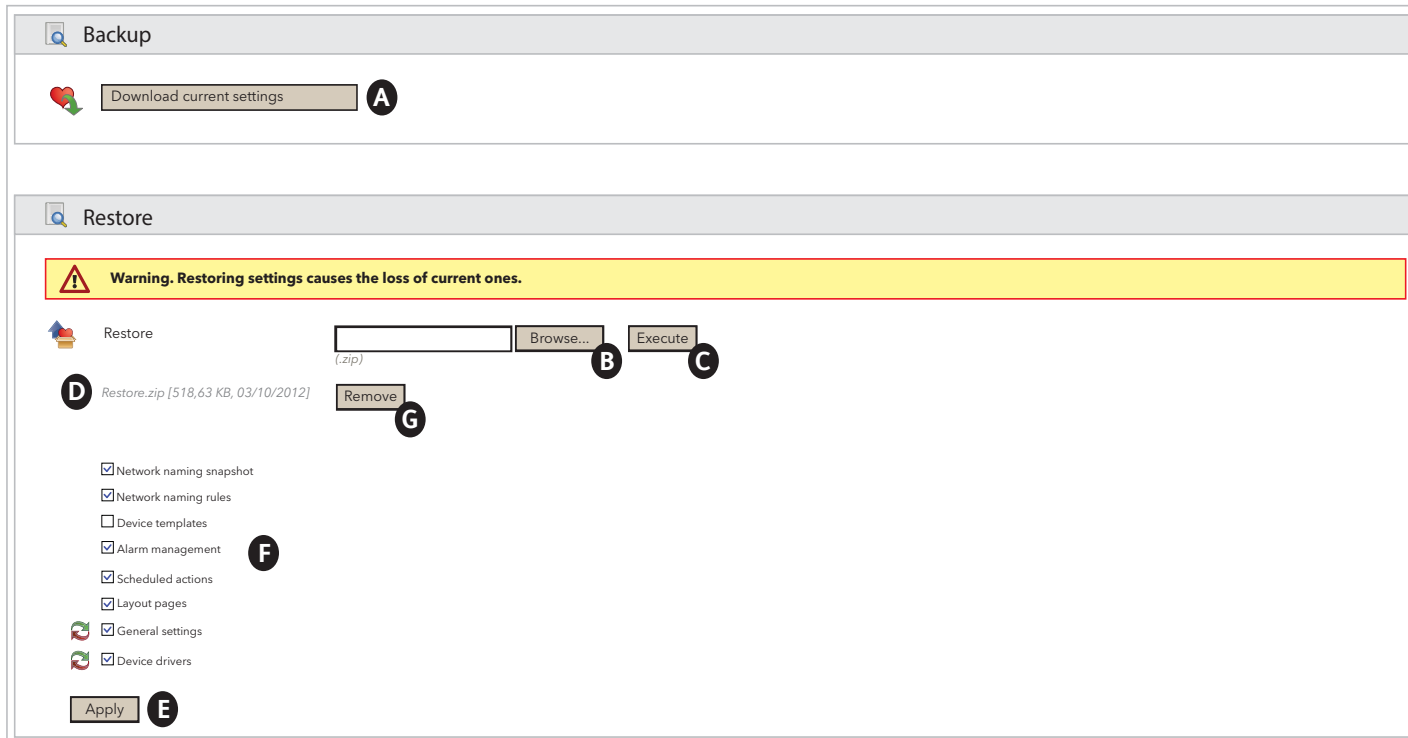
8.4 SYSTEM RESTORE AND BACKUP

You can backup the system configuration (NB: data is not saved!).
To do so, go to:

💻 Computer → 💗 Backup/Restore

The following page appears:

Two subsections are visible:

- **BACKUP**

  Click on **Download current settings** (**A**), a .zip file (compressed file) is created containing the following information:

  - Network name
  - Last Action rules file applied
  - Device templates
  - Alarm management/recipients/intervals
  - Scheduled tasks
  - GenericSettings.xml file
  - Driver in use
  - Layout pages

  The user must save the file created following its own backup policies.

  TIP:
  We advise doing a system configuration backup as soon as system installation is complete and you have made sure everything is working.
  That file must be stored carefully to allow the system to be easily restored.

- **RESTORE**

    The Restore procedure is exactly the same as the backup procedure and is used to restore previously stored parameters in Televis**Go**.

    NOTE:
    The system restore function can be carried out:
    - **partially**: selecting the check boxes (**F**) for the functions to be updated
    - **fully**: selecting all the check boxes (**F**) for the functions to be updated

- Click on **Browse** (**B**) to open a window and select the backup file to be restored
- Click on **Execute** (**C**) to upload the selected file in Televis**Go**
- When the upload has been completed, the name, size and date of the backup file (**D**) will be visible (but the restore will not yet have been executed)
- Click on **Apply** (**E**) to restore Televis**Go** according to the contents of the uploaded file (**D**).
- In the check boxes above button (**F**) you can select which information to restore.
- The button **Remove** (**G**) is used to cancel the previously uploaded file.

In fact, the restore function is used to re-apply the backup functions on the same plant or replicate the information on different plants.

NOTE: The restore operation overwrites the settings in the plant without the possibility to cancel them (the user must have made a safety backup before the restore).

CAUTION: If the <u>Restore</u> operation relates to the network name, make sure that a scan of the network has previously been performed.

8.5 ACTIVITY LOGGING

Televis**Go** logs the main operations performed by the user in a .txt file:

Computer → Activity logging

The screen that appears displays 1 or more text files that can easily be consulted by pressing the "**OPEN**" button.

Activity logging
[TraceUserActivity_0.txt] - [102182 Bytes] - [7/31/2013 9:28:51 AM]   Open
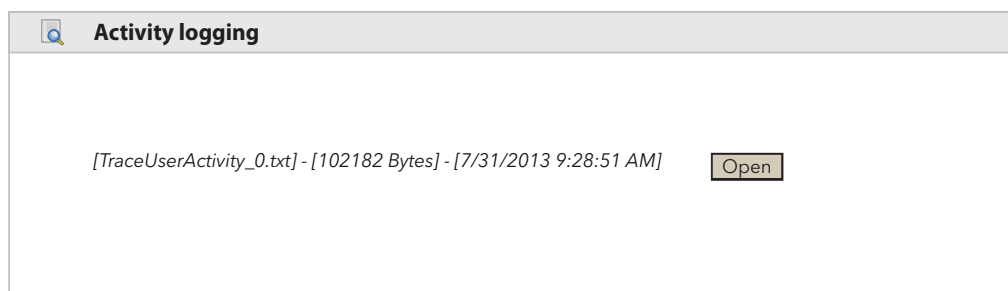
The text files used to log activities belong to a group of files that are managed in a circular mode (maximum of 10 files), in the same way as the tracking files.

IMPORTANT:
The information contained in these files is not held permanently, but will be retained for a period of time related to the volume of activities performed by the user.

The language used to log data in the Log files is the system language.
The tracking of user activities is also reported in the application Tracking file in English, to facilitate consultation in the event that the system language is not easily comprehensible.

The enabling of this function is controlled by the GenericSettings.xml; by default, the function is enabled.

<Setting Key="EnableUserActivityLogging">True</Setting>)

The user is proposed a list of User LOG files, arranged in descending chronological order (with the most recent first in the list)and displayed in accordance with the option selected.

CAUTION:
Access to this function is restricted to users and groups having enabled the permission "**User/group management**", set in:

Settings → Users → Groups

in the subwindow "**permissions**"

Below is a list of the activities that are logged in the files:
- Login - AutoLogin - Logout
- Start / Stop acquisitions
- Start / Stop Scheduler
- Execution of Commands
- Execution of Commands from Parameters page
- Writing of parameters
- RVD access
- Network scanning
- Saving of a new network configuration
- Editing and saving of controller names
- Editing and saving of tools outside the configuration
- Editing/creation/removal of Alarm Actions
- Editing/creation/removal of Intervals
- Editing/creation/removal of Scheduled Activities
- Editing and saving of System Names
- Updating: updating of files in the pages
    - Computer Updating
    - Backup / Restore
    - Naming
    - Tool template
    - drivers
- Reboot
- Updating: file removal
    - Application
    - File name rules
    - Updating
    - Languages
    - drivers
    - Scheduled actions
    - Layouts
    - Parameters map file
- Licence updating
- Backup and recovery of imported data
- Confirmation of backup and recovery (Apply)
- Editing and saving of:
    - General settings → System
    - General settings → TelevisTwin
    - General settings → Alarms
    - General settings → Media
- Editing and saving
    - Data Archive → Controls
- Editing and saving
    - Data Archive → Management
- Editing and saving
    - Computer → Information → Network Settings

9. ADMINISTRATIVE TOOLS

> ⚠️ **CAUTION!: Section intended for expert users.**

9.1 RESTORE DISK IMAGE

Function available only in versions with Windows 7 Operating System.
This function allows you to reinstall the software and the operating system.

> ⚠️ **CAUTION!: This operation will delete the entire contents of the hard disk (software, data and TelevisGo settings).**

1) To proceed, enter an empty file in the system file "**C:**" called **enablerestore** and then reboot Televis**Go** (**NOTE**: The file will be deleted at each start-up).

2) On reboot, the following menu will be displayed for 10 seconds:

- Automatic Windows Boot: for normal operating system start-up
- **Restore Eliwell Factory Image**: to reinstall the software and operating system
- Create Backup Image: RESTRICTED TO SERVICE PERSONNEL

Use **UP/DOWN** to select the option "**Restore Eliwell Factory Image**" and press Enter.
Use **UP/DOWN** to select the image to be restored and press Enter.
Use **UP/DOWN** to select **"OK"** and press Enter.

> 👉 **NOTE:** the operation will take a minimum of 10 minutes.

3) After restoring the system, you will need to re-enter the software licence code, which can be found on the product label, or, in the case of a software update, the new code provided by Eliwell.
To do this, access the Televis**Go** web page from the following menu:

> 💻 **Computer** → 🖥️ **Update license**

9.2 FILE DOWNLOAD

You can download a .zip file containing a number of files which allow you to backup the system data, obtain information on system status and configuration, or run other diagnostics.

You can download the .zip file using a web browser and keying in:

> **http://<indirizzo del TelevisGo>/debug.rix**

The Televis**Go** address is the one used for normal web interface use (e.g.: 192.168.1.50).

Users can upload files to Televis**Go** via FTP communication or Remote Access;
see the Disclaimer and PC configuration section.

9.3 RESET ADMINISTRATOR PASSWORD

If you lose or forget the Administrator password, it can be accessed from the following web page:

> **http://<indirizzo del TelevisGo>/ResetAdminPassword.aspx**

The Televis**Go** address is the one used for normal web interface use (e.g.: 192.168.1.50).

This page will give you a code made up of letters and numbers (password reset code). Contact the technical help desk and give them the Televis**Go** generated code. The help desk will give you a code (password) to enter in the text box in this page.

When you click the **Reset Password** button, the Administrator password will return once again to "**0**".

10. REMOTE DATA DOWNLOAD PROTOCOL

Televis**Go** allows third party clients to extract data saved in their own files and run remote operations on the plant using the TCP/IP communication protocol described in the following document:

Data_Download_Protocol.doc (available only in English)

where all the details of commands, times and handshake modes are given.

Functions supported include:

- Retrieve general plant status information
- Retrieve real-time data
- Retrieve historical data
- Change time in Televis**Go**
- Send commands to devices
- Write parameters to devices

NOTE: To enable communication between Client and Televis**Go**, there must be physical connectivity - such as Ethernet between the 2 systems.

- **Function busy message:** to avoid blocking Televis**Go** functions, <u>**always**</u> use the logout button to exit the application. If you don't do this, the functions will remain busy until the WEB session times out (20 minutes), preventing them from being used by other users.

- **Naming controllers:** The pages used to select devices/resources for accessing various system functions (parameters, RVD, etc.) offer the option of applying filters.
  These filters act on the "**Long Name**" of the relative device/resource.
  To simplify selection by applying filters, we recommend the application of mnemonic "naming" (easily recognizable).
  A device nomenclature like the following:

  - Frozen food cabinet **1**
  - Frozen food cabinet **2**
    ⋮
  - Frozen food cabinet **n**
  - Vegetable counter **1**
  - Vegetable counter **2**
    ⋮
  - Vegetable counter **m**
  - Positive temperature controller
  - Negative temperature controller

  This makes it easy to identify all devices within a group (e.g. frozen foods cabinets) simply by entering the string "**frozen**" in the filter; controllers can be identified using the string "**Controller**".
  The same concept can be extended to the naming of individual device resources/alarms.

- **Alarm detail: why is there an action when an alarm occurs, and not the action associated with the alarm reset?**
  This happens when a category or action connected to the same alarm management category is removed.
  The system is no longer able to perform the activity associated with resetting that alarm.

- **Why does the system carry out an action associated with an alarm category, even if the validity period has elapsed?**
  This happens if an alarm instance begins within a validity period.
  Management also continues during the alarm reset phase, even if this occurs outside the validity period.

- **Why are some strings missing sometimes when I update drivers?**
  This happens because updating drivers does not update dictionaries as well.
  To update dictionaries, go to the updates WEB page and update dictionaries (see "Update" section).

12.1 RESPONSIBILITY AND RESIDUAL RISKS

Eliwell Controls srl declines any liability for damage due to:
- Unspecified installation/use and, in particular, in contravention of the safety requirements of legislation in force and/or indicated in this document;
- Use on equipment which does not provide adequate protection against electrocution, water and dust in the actual installation conditions;
- Use on equipment in which dangerous components can be accessed without the use of specific tools;
- Tampering with and/or modification of the product
- Installation/use in equipment which does not comply with legislation and regulations in force.

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The same applies to any person or company involved in preparing and editing this document. **Eliwell Controls srl** reserves the right to make aesthetic or functional changes at any time without notice.

12.3 DISPOSAL

The equipment (or product) must be subjected to separate waste collection in compliance with the local legislation on waste disposal.

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