

# USER GUIDE



Certification and estimation of  
boards for construction sites,  
camping sites, piers and  
distribution systems

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## 10 - Introduzione

**GWENERGYpro** permits to configure the TTA, ACS or DBO boards by simply choosing among the panels foreseen by Pre-fitted system and automatically draws up the technical documentation foreseen by the Standards (technical file), the quotation, and the plate.

The first step is the **compilation of the project data** (buyer, system and all the necessary data in order to draw up the final documentation correctly). For the **board composition**, you can choose between **2 different selection mode**:

- **CERTIFICATION**, to select a certified board;
- **BUDGETING**, to compose and estimate a board.

### “CERTIFICATION” mode

The software proposes a series of simple and intuitive icons for an easy choice of the **general board features** (TTA, ACS or DBO, wired or not wired, IP rating, etc...), and the type of case and socket outlet. At this point, **GWENERGYpro** automatically shows all the **circuits** corresponding to the choices made and all the cases suitable to the various circuits foreseen by Pre-fitted system.

Once selected the desired case and circuit, the next step is the **assembling of the board**: the various components proposed are selected on the basis of the type of assembling foreseen for that particular enclosure.

### “BUDGETING” mode

You can freely choose the **enclosure**. After, you can **choose the components**. At the end of the composition, you can **draw the electrical circuit**: to draw the circuit you have to drag the components (previously selected) displayed on the video.

At the end of the composition you can **modify the panel**.

To complete the panel, it is also possible to add on any **accessories** required.

Therefore, the quotation is automatically drawn up: the software visualises the total cost of the board and selected accessories, with the possibility to apply a discount and to fill in the field referred to the manual labour.

All the documents printout are saveable in **single document** and **exportable** in PDF format.

# 100 - Menu

The program uses a Microsoft menu-style formed by seven bar that contain various commands based on the active section:

## DATA section



## CONFIGURATION section



## BOARD and ELECTRICAL DIAGRAM section



## PRINTS section



The seven bars are these:



### FILE Menu

It contains basic commands for managing files with GWENERGYpro



### SECTIONS Menu

It contains the commands to move in the various program sections



### EXPORTS Menu

It contains the commands to export the technical drawings and the data



### SHOW/HIDE Menu

It contains the commands to show or to hide the program sections



### PAGES Menu

It contains the commands to scroll the pages in the print preview



### ZOOM Menu

It contains the commands to scroll to zoom the pages in the print preview



### HELP Menu

It contains the commands to open the user guide or the settings window

# 1000 - File Menu

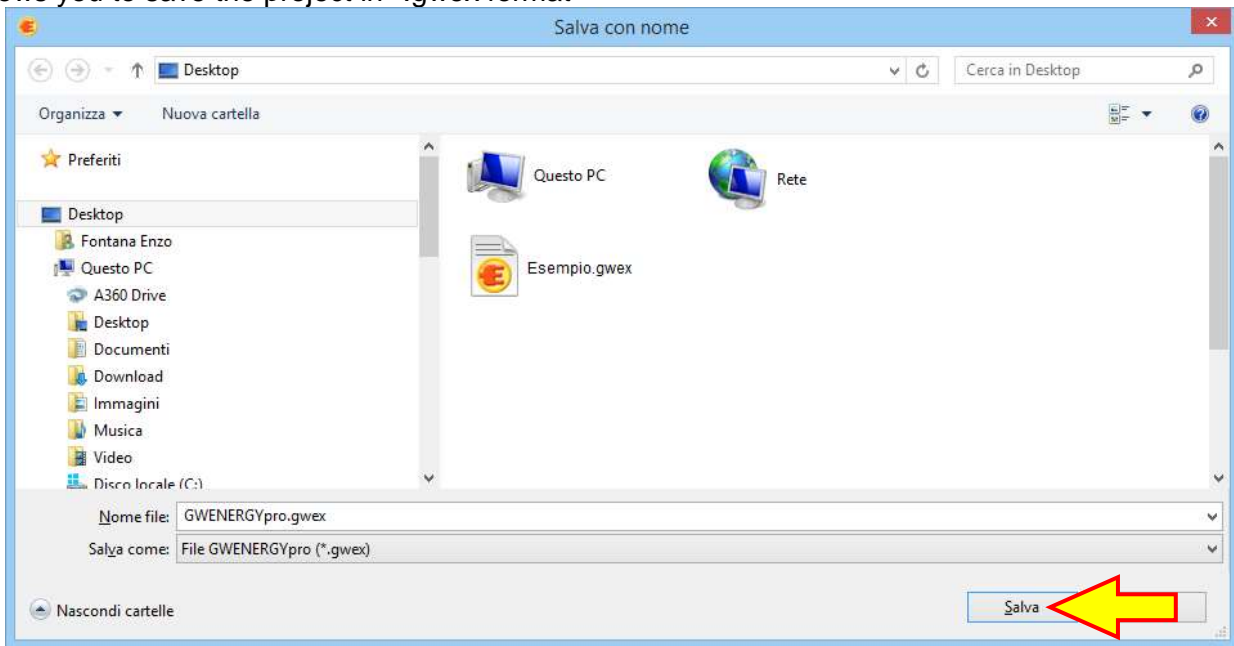


## 1001 - **New**

Using this command is possible to create a new project.

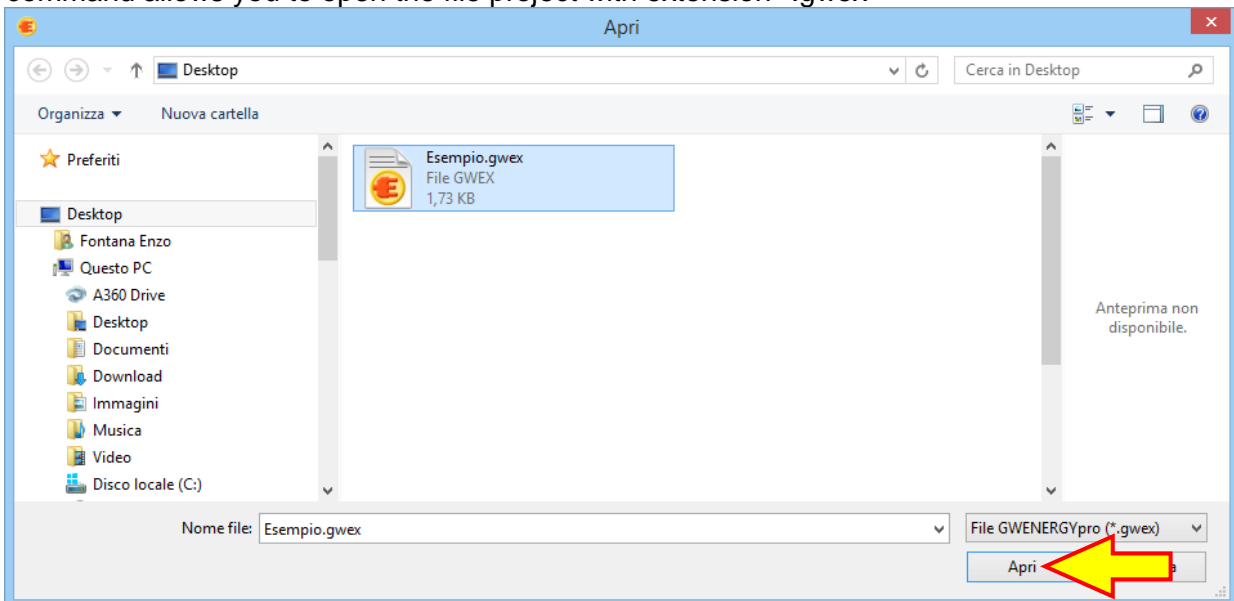
## 1002 - **Save and Save as**

It allows you to save the project in \*.gwex format



## 1003 - **Open**

This command allows you to open the file project with extension \*.gwex

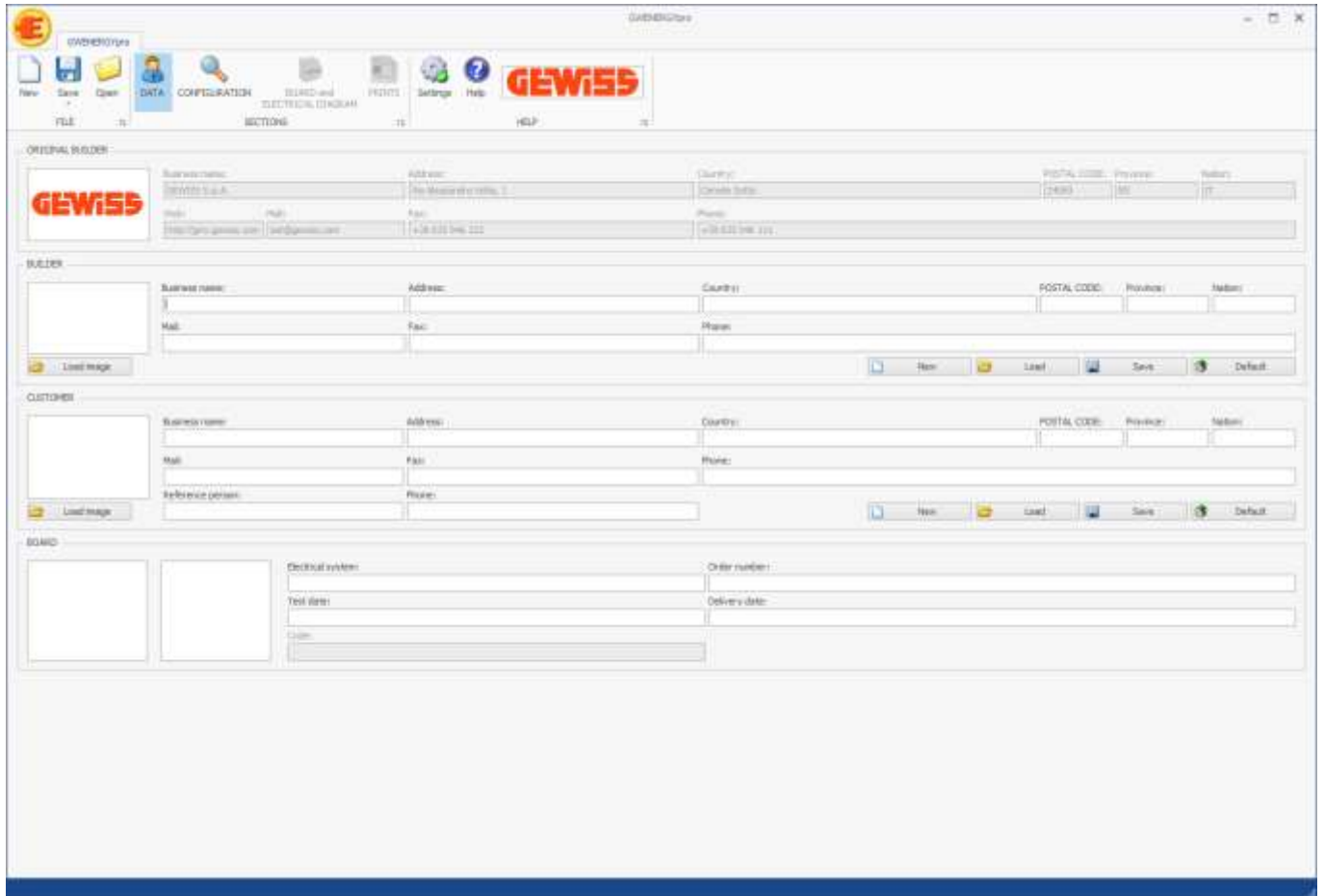


# 1100 - Sections Menu

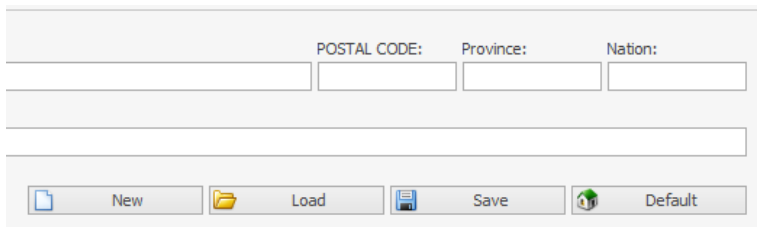


## 1101 - Data

In this section is possible to insert the builder, customer and board data. These data are used in the documents printed by the program.



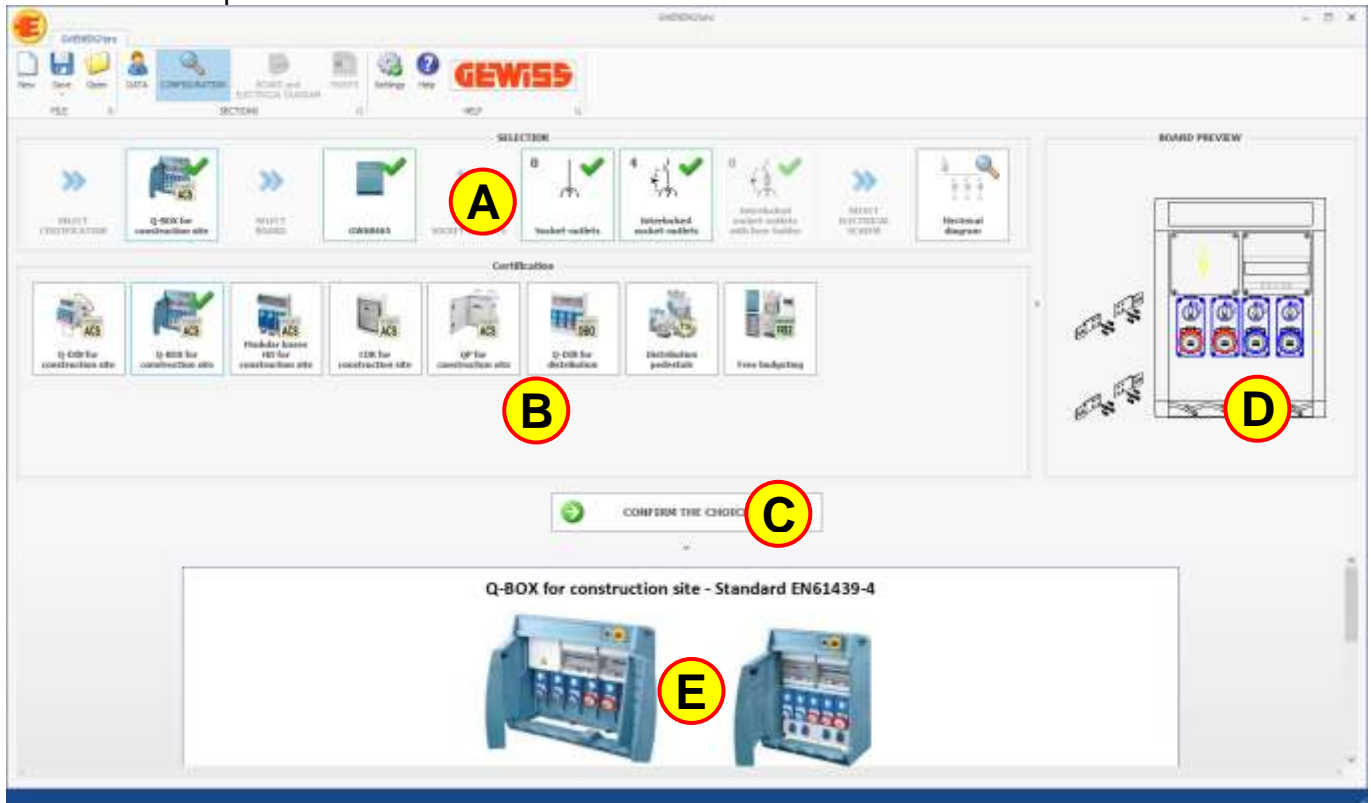
The data can be managed by these buttons:



- New: this button deletes the data actually showed
- Load: this button loads previously saved data
- Save: this button saves the currently displayed data
- Default: this button sets as default the currently displayed data

**1102 - Configuration**

In this section is possible to set the search criteria:

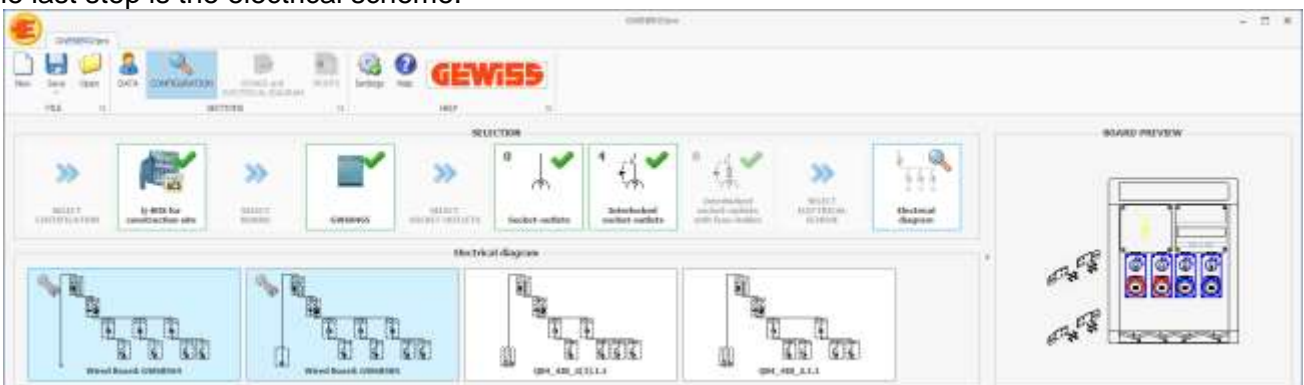


This section is made up of 5 areas:

- A** Steps of choice
- B** Selection area
- C** Confirm the choice
- D** Automatic board preview
- E** Additional information

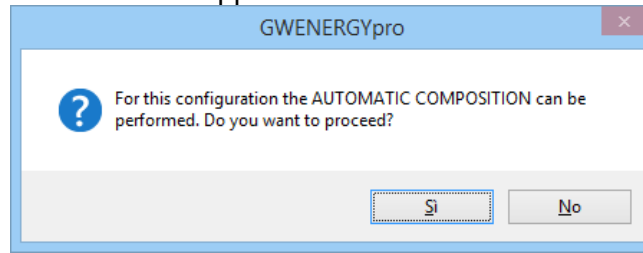
To set the search criteria is possible to click on the boxes in the selection area **B** in this way the check icon ✓ will appear on the selected box. After this operation is possible to confirm the choice by the confirm button **C** passing to the next step of choice **A**.

The last step is the electrical scheme:



The electrical diagrams with **light blue** background color are the wired board, the other electrical diagrams instead can be used in order to insert the devices selected by the user.

Clicking on the button  this window will appear:



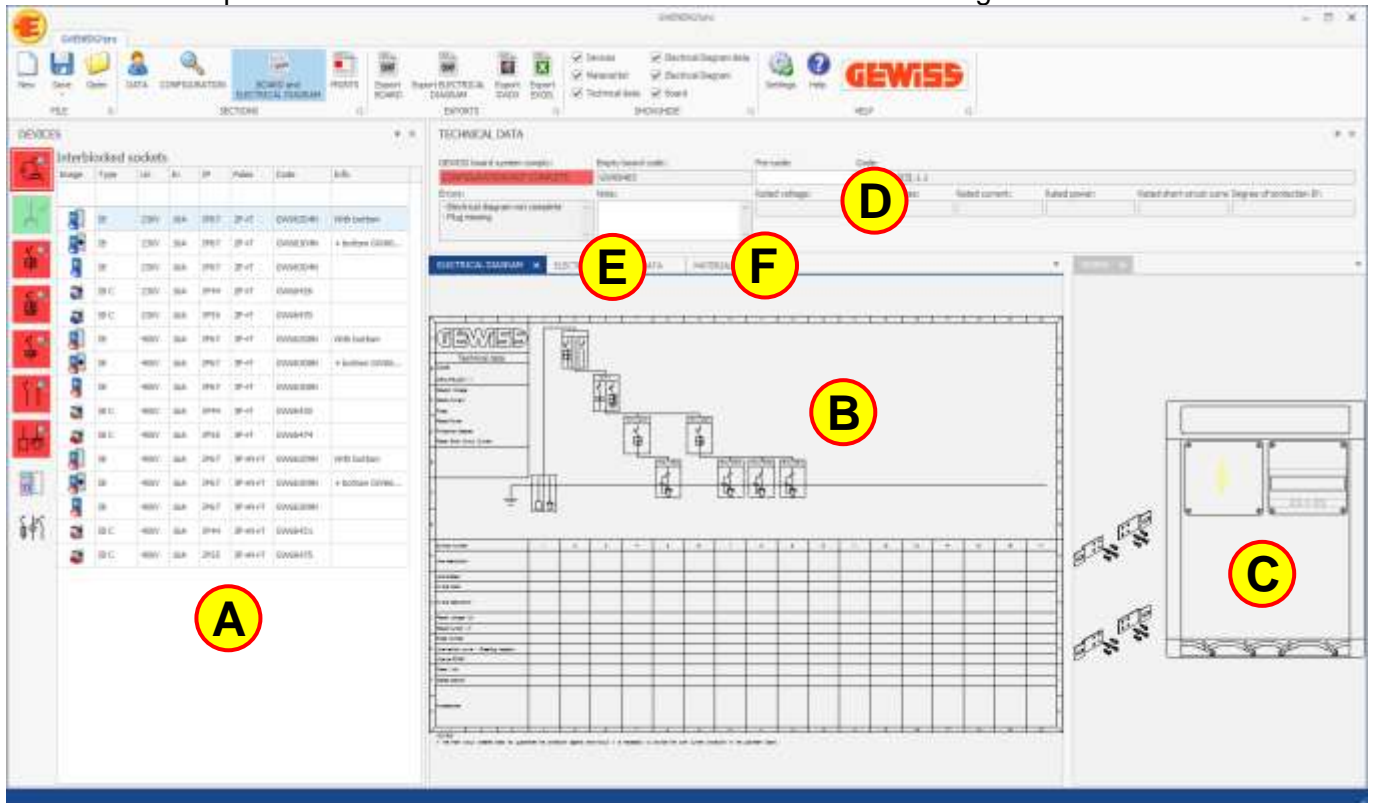
By clicking on the **YES** button, the BOARD and ELECTRICAL DIAGRAM section will be open and the electrical diagram will be automatically compiled with the products typically used in that installation area. (The choices automatically performed by the program can be modified by the user)

By clicking on the **NO** button, the BOARD and ELECTRICAL DIAGRAM section will be open and the user can manually insert the devices in the electrical diagram.



**1103 - Board and electrical diagram**

In this section is possible to insert the electrical devices in the electrical diagram and in the board:



This section is made up of 6 areas:

- (A)** Devices organized by categories
- (B)** Electrical diagram
- (C)** Board
- (D)** Technical data
- (E)** Electrical scheme data
- (F)** Material list

To proceed is possible to drag the devices **(A)** in the target area highlighted on the elctrical scheme **(B)** and on the board **(C)**.

When all the components of a category are inserted, the corresponding button in the left menu is **green** colored in this way is possible to move to the next category.

Category with all the components inserted

Category with components not yet inserted

DISPOSITIVI						
Interruttori MagnetoTermici						
Foto	Tipo	In	Curva	Poli	Codice	
	MTC60	16A	C	1P+N	GW90227	
	MTC60	16A	C	2P	GW90247	
	MTC60	16A	C	4P	GW90287	
	MTC45	16A	C	1P+N	GW90027	
	MTC45	16A	C	2P	GW90047	

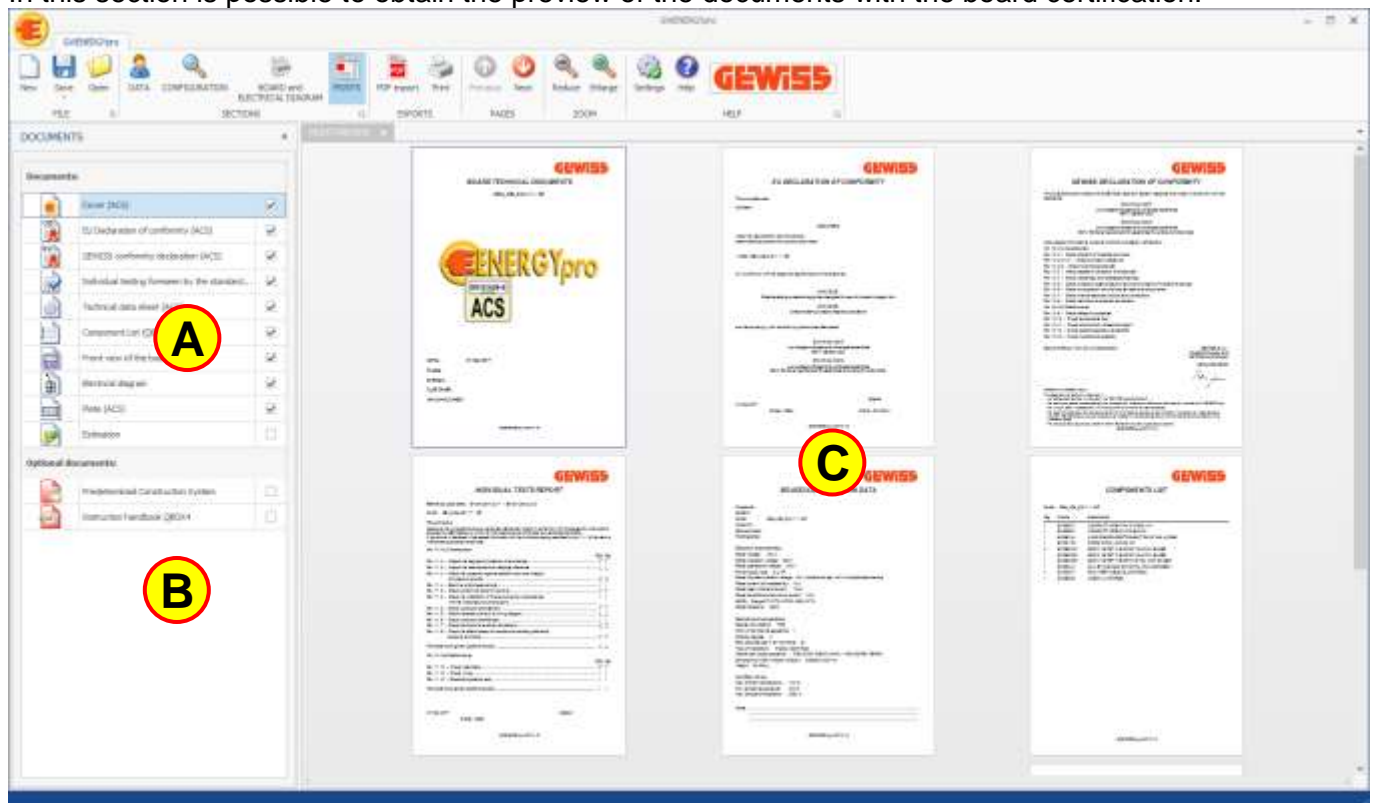
When all the categories are marked with **green** color it means that all the components are been inserted in the electrical scheme/board and consequently the configuration is COMPLETE so the technical data

**D** will be automatically set.

TECHNICAL DATA							
GEWISS board system comply:	Empty board code:	Pre-code:	Code:				
CONFIGURATION COMPLETE	GW6B455		QB4_400_2(3)_1.1 - SP				
Errors:	Note:	Rated voltage:	Number of poles:	Rated current:	Rated power:	Rated short-circuit current:	Degree of protection (IP):
		400 V	4P	33 A	9 kW	3 kA	IP55

**1104 -  Prints**

In this section is possible to obtain the preview of the documents with the board certification:



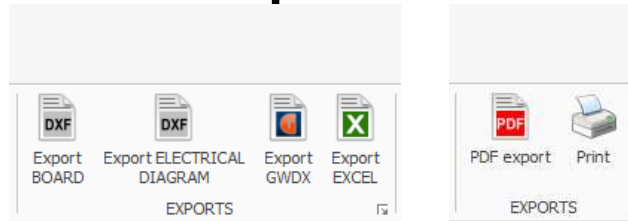
This section is made up of 3 areas:

- A** Page list
- B** Technical documents for the device inserted in the board
- C** Preview

GWENERGYpro automatically selects the pages **A** and the user can add or remove the documents **A** and **B**.

In the preview area **C** is possible to see the document in real time and it can be printed by the printer or it can be exported in PDF format.

# 1200 - Exports Menu



This menu is divided into 2 parts that are activated by the BOARD and ELECTRICAL DIAGRAM section and PRINT section

**1201 -  Export board**

With this command is possible to export the front view of the board currently displayed:

- DXF and DWG used by CAD program
- JPG and BMP used by graphic program

**1202 -  Export electrical diagram**

With this command is possible to export the front view of the board currently displayed:

- DXF and DWG used by CAD program
- JPG and BMP used by graphic program

**1203 -  Export GWDX**

With this command is possible to export the material list in GWDX format that can be used by the GEWISS technical software.

**1204 -  Export EXCEL**

With this command is possible to export the material list in XLSX format.

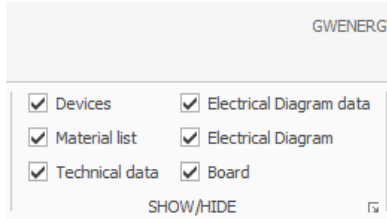
**1205 -  Export PDF**

With this command is possible to export the documents in PDF format.

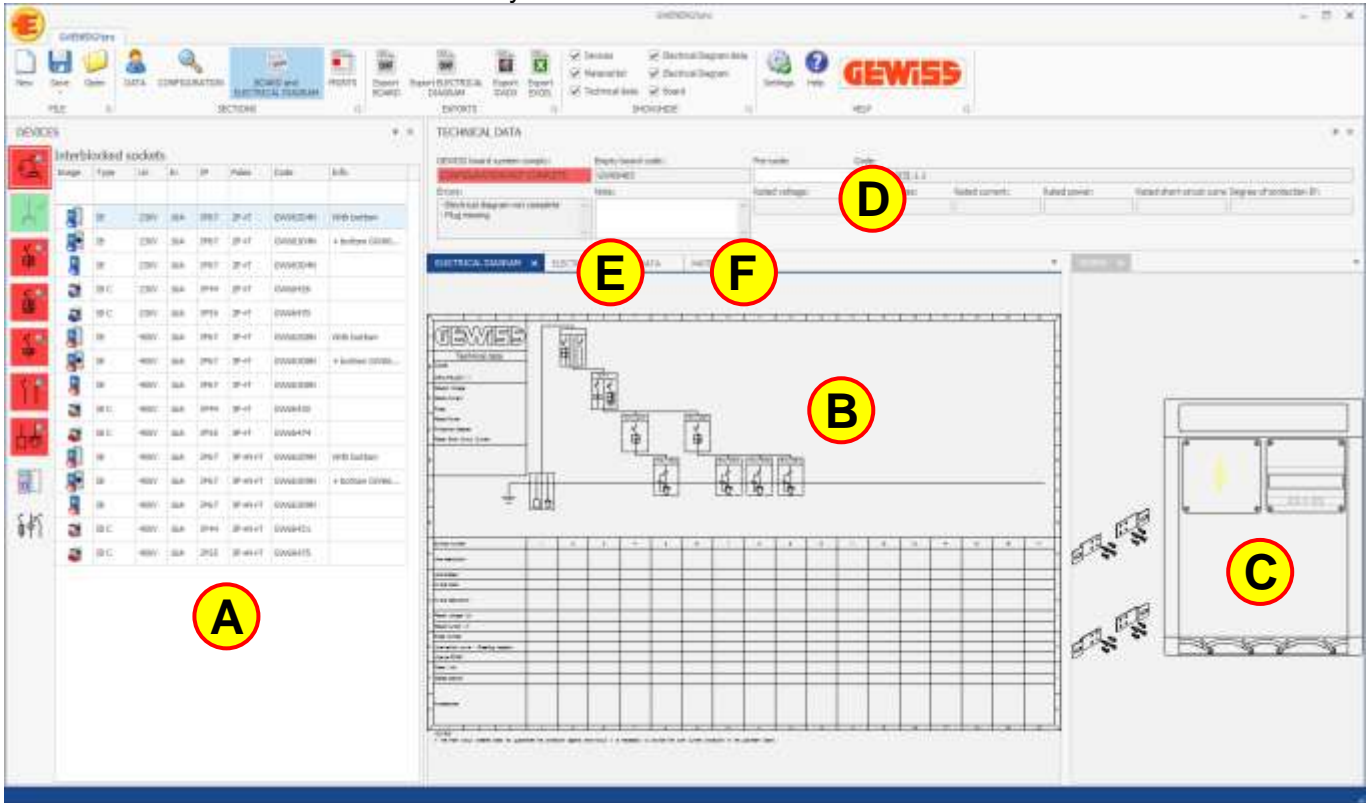
**1206 -  Print**

With this command is possible to print the documents with the printer.

# 1300 - Show/Hide Menu



This menu is activated by the BOARD and ELECTRICAL DIAGRAM section



**1301 -  Devices**

With this command is possible to show or hide the devices **A**

**1302 -  Material list**

With this command is possible to show or hide the material list **F**

**1303 -  Technical data**

With this command is possible to show or hide the technical data **D**

**1304 -  Electrical diagram data**

With this command is possible to show or hide the electrical diagram data **E**

**1305 -  Electrical diagram**

With this command is possible to show or hide the electrical diagram **B**

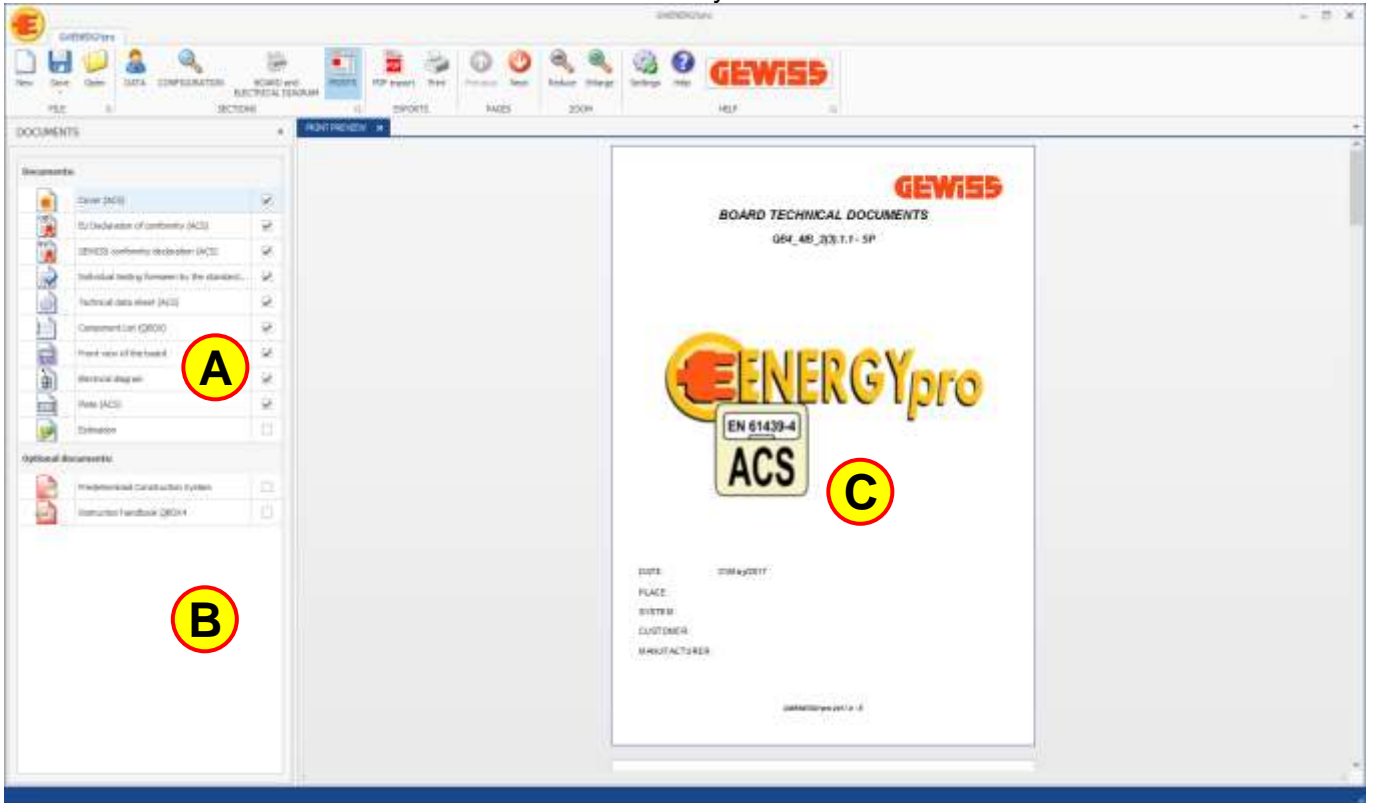
**1306 -  Board**

With this command is possible to show or hide the board **C**


# 1400 - Pages Menu




This menu is activated by the PRINT section



**1401 -  Previous**

With this command is possible to show the previous page in the preview 

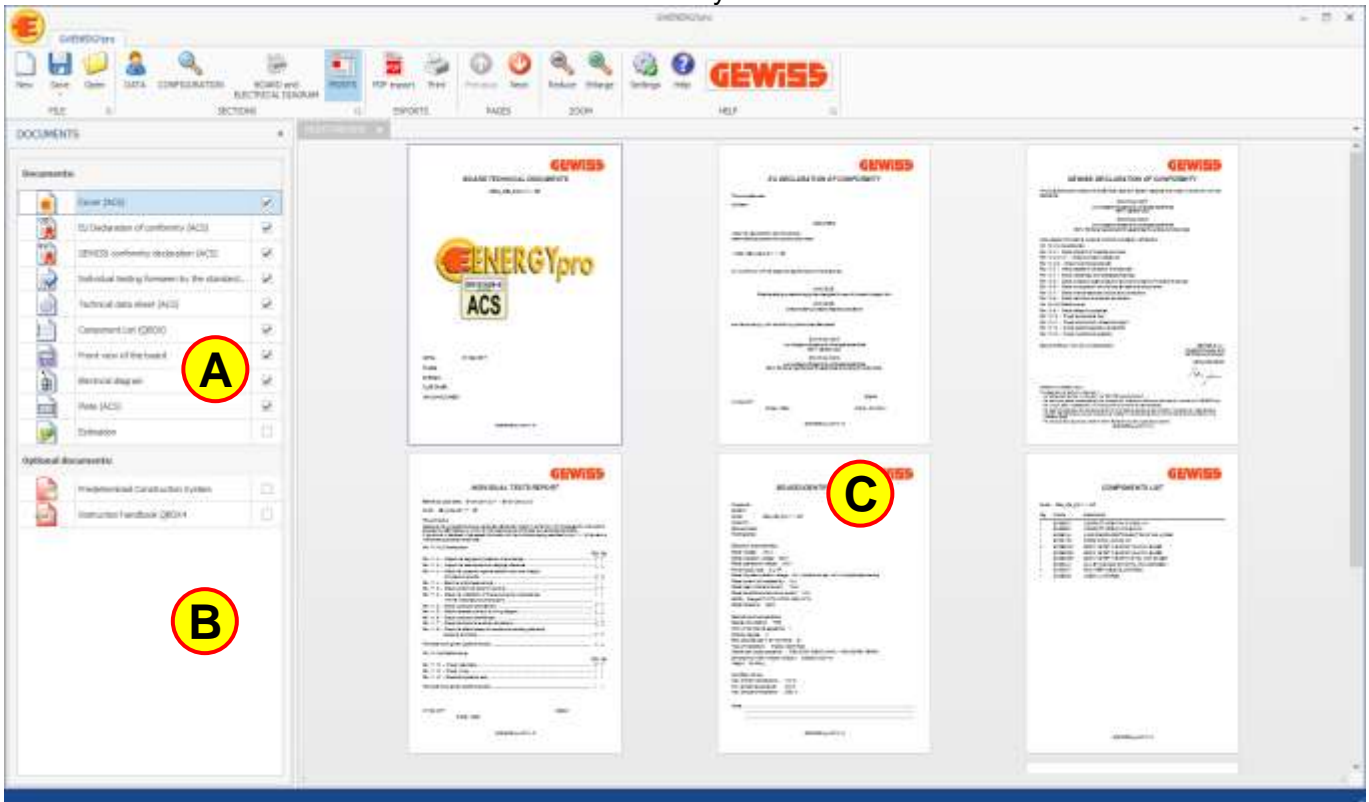
**1402 -  Next**

With this command is possible to show the next page in the preview 


# 1500 - Zoom Menu




This menu is activated by the PRINT section



## 1501 - Reduce

With this command is possible to reduce the page size in the preview  in this way is possible to show more than one page.

## 1502 - Enlarge

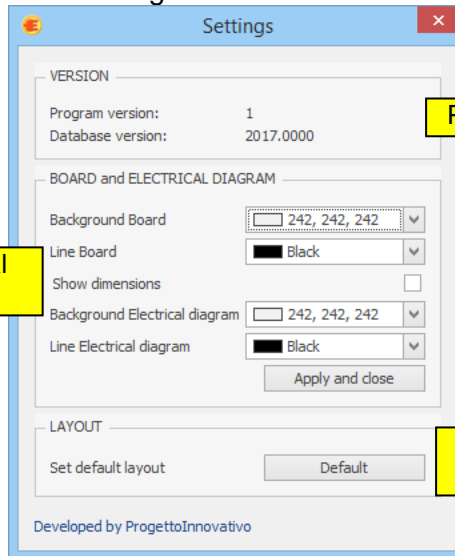
With this command is possible to enlarge the page size in the preview  in this way is possible to show one page at a time.

# 1600 - Help Menu



## 1601 - Settings

With this command is possible to open the settings window:



Set the graphic option for the electrical scheme and board

Program and database information

Restore the default position for the various section

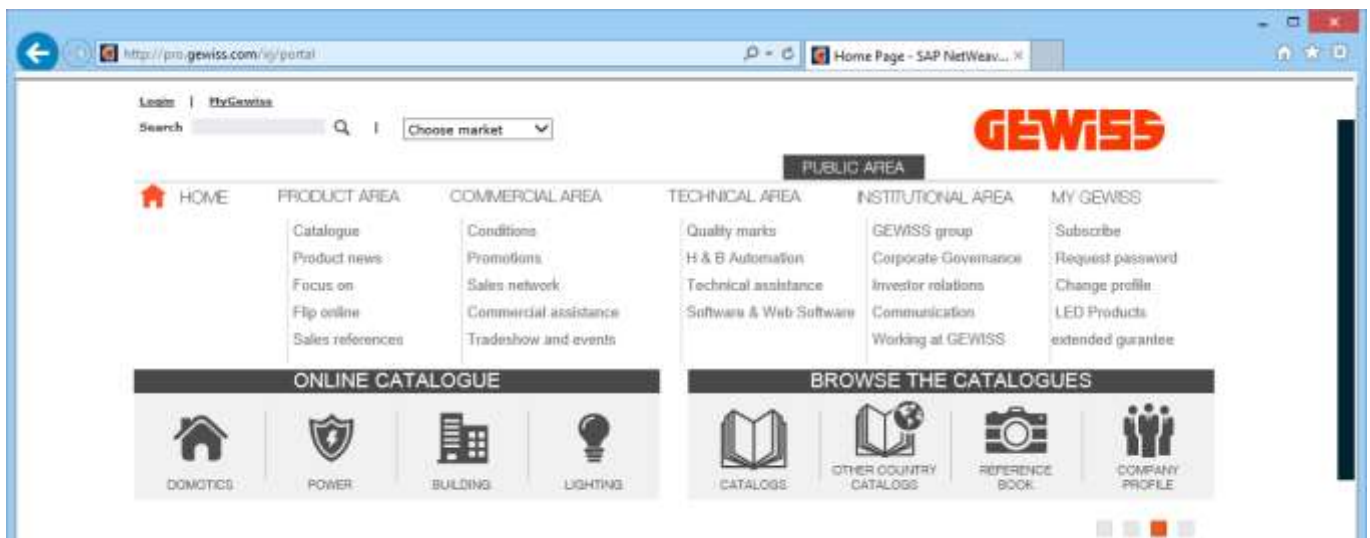
## 1602 - Help

This command opens the user guide in PDF format.

## 1603 - **GEWISS**

This command opens the GEWISS website for the professionals of electrical sector:

<http://pro.gewiss.com/iri/portal>





## 200 - Certifications

With GWENERGYpro is possible to certify boards with socket outlets with three Standards:



EN61439-4 Construction site board



EN61439-3 Distribution board



EN60439-1 Distribution pedestals

### 2000 - EN61439-4 Construction site board



The temporary systems set up on building and demolition sites must comply with CEI 64-8/7 regulation, section 704, putting into practice the following measures:

- all the distribution boards must comply with the IEC 60439-4 Standard (they must therefore be of the ASC type);
- at the start of the set-up of the site system (immediately after the supply point), a dissection and general protection distribution board must be provided;
- building site services must only be connected to final distribution boards;
- the system downstream of the main distribution board should be considered as movable, and flexible cables should be used, with a suitable, heavy duty sheathing (H 07 RN - F type, or similar);
- in the areas where people or vehicles pass, the cables must be protected against mechanical damage, by burying them, suspending them, positioning them under platforms or protective tiles, inside robust cement or iron tubes;
- the cables that carry the power supply to the machinery can be managed directly by the ASC distribution boards, by movable socket-outlets in compliance with the IEC 60309 Standard, and (supplied with a hooking device) by sockets of any type incorporated in a cable winder;
- all the plug sockets with  $I_n \leq 32A$  used on building sites must be protected against indirect contacts via residual current circuit breakers with  $I_{dn}$  not more than 30mA; it is not necessary for every socket to have its own switch;
- every socket of the final distribution ASC must have its own protection against overloading, unless there is a general protection at the source with nominal current not greater than that of the smallest socket;
- the plug sockets not contained in the final distribution board (movable sockets, or those mounted on cable winders) should have protection class of minimum IP44;
- in alternative to the protection with a residual current circuit breaker with  $I_{dn} \leq 30mA$ , you can use sockets protected by an insulation transformer: wherever possible (power supply to portable lamps), you can use low voltage safety sockets (SELV) of the industrial type 2P or 3P 12h (40-50V) or without reference (20-25V) (see IEC 309 range).

## 2100 - EN61439-3 Distribution board



In places where maintenance and process work is carried out with mobile or portable electric tools, plug socket distribution boards must be used, located so as to avoid that the flexible cables or stretcher cords are excessively long (a distance of not more than 15-20m is recommended between the distribution boards, in the whole working area). The choice and size criteria are summarised in the figure. In particular, the following characteristics are highlighted:

- protect the plug sockets with a residual current circuit breaker with  $I_{dn} \leq 0.03A$ ; to avoid untimely interventions, the protection of not more than 4-5 sockets with a residual current circuit breaker is recommended;
- measure the power supply line and the master switch, considering the factors of contemporaneity and use (values that are always low, but such that it is 100% possible to load at least the sockets with greater nominal current);
- if the plug socket distribution board includes sockets with different nominal currents, provide an automatic miniature circuit breaker with "In" not higher than that of the group) for each homogenous group.

## 2200 - EN60439-1 Distribution pedestals



As far as systems in campsites is concerned, the relevant standards are the CEI 64-8/7 Standard (environments and special applications) which, in section 708, deals with the provisions for electrical systems for caravan and camper campsites, and the relevant European harmonisation document for European standards, HD 384-7-709 and the IEC 60364-7-709 International Standard. Below, the standard regulations for a system in a campsite, in accordance with CEI 64-8/7:

- the distribution boards must be installed so in such a way that they are not more than 20m from the vehicle connection point;
- the sockets must comply with the EN 60309-1/2 Standard and have a nominal current not lower than 16A;
- the sockets must be installed so that the height of the lower edge from the ground is between 0.5 and 1.5m;
- at least one socket must be provided for each caravan/camper parking area;
- each socket shall have its own overcurrent protection;
- each socket must be protected with a residual current circuit breaker with sensitivity not greater than 30mA;
- no more than four sockets must be positioned on each side of the board.

## 20 - Update with GWSINC



**GWSINC** is a simple program that permits to update automatically all the GEWISS Software and the only requirement is an Internet connection.

**GWSINC** can recognize if the GEWISS programs installed on your PC are updated or not. Any update happens simultaneously for all programs with this check mark .



The background color of each software in the list can be of 3 colors:

- White color: The software is installed and updated
- Yellow color: The software is installed but not updated
- Gray color: The software isn't installed on your PC

The update software GWSINC can be downloaded by the GEWISS website:

[http://pro.gewiss.com/irj/portal/gwsinc\\_IN](http://pro.gewiss.com/irj/portal/gwsinc_IN)