NEWS RELEASE 2023

THE NEW RELEASE 2023

CABLING 4D, with the new version 2023, it consolidates its position in the market as a complete, powerful and reliable tool for **the design of cables and harnesses in the electrical sector.**
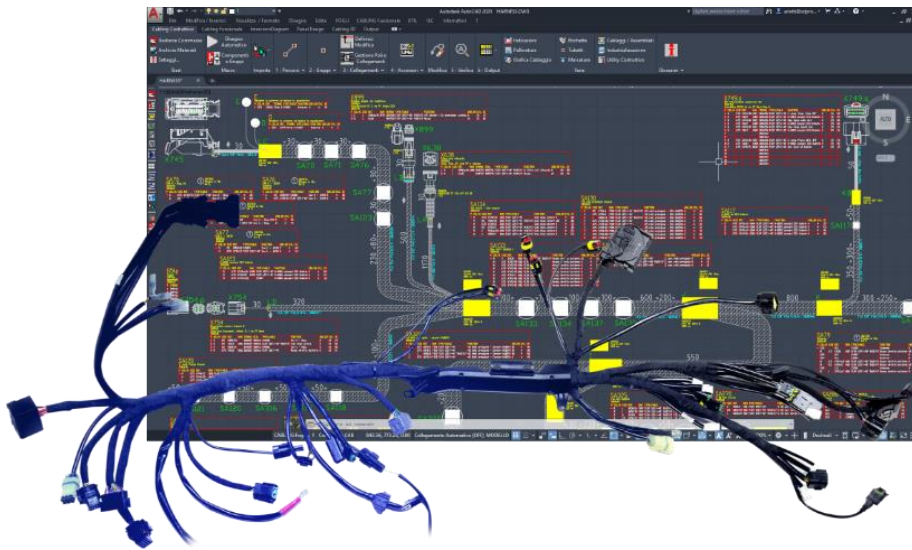
CABLING has in fact created a market standard used by both producers and designers of harnesses because it offers all the information necessary for both the production and the realization of the technical documentation. **Drawings can be shared between companies or between departments of the same company, creating synergy and reducing time and errors.**

In addition, other tools can be integrated into the design of the harnesses: this allows to increase the use of data containing in the harness projects of CABLING to give a feedback to other needs:

- Detailed wiring diagrams and electrical diagram that can be used as documentation and to facilitate technical assistance of you machinery: we are convinced that in sectors other than industrial automation, they must be more completed and readable in a simple and practical way.

- Modular interface with the cutting / strip / crimping machines and with the assembly departments

- Modular interface with harness testing systems

- Dynamic navigators on the project

- Time calculation for the production and assembly of harnesses.

Our mission today is undergoing a process of expansion, in correlation with the rapid changes in the market, in support of the electrical / electronic sector that today more than ever is the spearhead of industrial technology.

Importance makes a project necessary!

CAD.Able, always in contact with the design departments, continues its development strategy of CABLING 4D by responding in an innovative way to current and future design needs, also in terms of reliability and time. This vision of ours, supported by the feedback from our customers, we trust is the right direction for the electrical sector.

The content of this document contains most of the new features introduced on the product.

INSTALLABLE ON

AutoCAD OEM version

Autodesk 2023 64 bit graphic engine

APP to AutoCAD version

Installable on AutoCAD 2021, 2022 and 2023

HARDWARE & SOFTWARE REQUIREMENT

Minimum hardware & software configuration required:

HARDWARE

Personal Computer
- Processore Intel Core i5© or higher with SSE2 technology
- Processore AMD Ryzen 5TM or higher with SSE2 technology
- Mouse or other pointing device
- Possible plotter or printer
- 8 GB RAM memory

Video card
- 1 GB video card with 29 GB/s of bandwidth, compatible DirectX 11
- Screen DPI scale factor less than or equal to 125%
- Are compatible also the Ultra HD-4K monitors

USB Ports
- USB port for the hardware protection
- USB 2.0 port for installation

Free space on disk:
- CABLING 4D 2023   6 GB
- CABLING 4D CAD 2023   8 GB (associated to SPAC Automation CAD 2023)

Internet access for the installation and on-line update

SOFTWARE

O.S.
- Windows© 10 64 bit - version 1803 or successive
- Windows© 11 64 bit

App to AutoCAD
- Autodesk AutoCAD or Electrical rel. 2021/2022/2023 already installed and working.
- AutoCAD LT is not valid for the installation.

OEM version
- Autodesk AutoCAD© is not required with SPAC Automation OEM engine.

Suggested hardware configuration:
- 3GHz Intel® Core™ i7 or AMD Ryzen™ 7 Processor with SSE2 technology
- 4 GB video card with 106 GB/s of bandwidth, compatible DirectX 11
- USB 3.0 port for installation
- RAM memory: 16 GB
- Autodesk certified graphics hardware and drivers available at the following link
  https://knowledge.autodesk.com/it/certified-graphics-hardware

Attention
- System administrator permissions are required to install.

DATABASE FORMAT

SQLite Database

to guarantee shorter processing times and data stability

Index

IN EVIDENCE

CABLING 2023 changes the rules for the electrical diagram because make more easy the insertion of components and exploits the most certain source of data: the cables and harnesses designed with its layout environment.

Now you can insert components in several ways:
- With 'Insert Components' command
- Inserting the standard components of the menu
- Inserting the Components of the BLK user library
- Attacching a 'child' symbol to a 'Mother' component.

You can easily generate output with the list of components inserted in the current Multi-Sheet with their name, function and material code.

After the insertion of the Components you can use the data of one or more harnesses and cables to insert the mating parts of the components in the desidered position (groups like connectors, wire terminals, ecc.). We have added the new option 'Insert Pins on Component' that allow to select a Component that becames the 'Usage' of the Group to be inserted.
In the end you can easily import the connections between the inserted mating part groups.
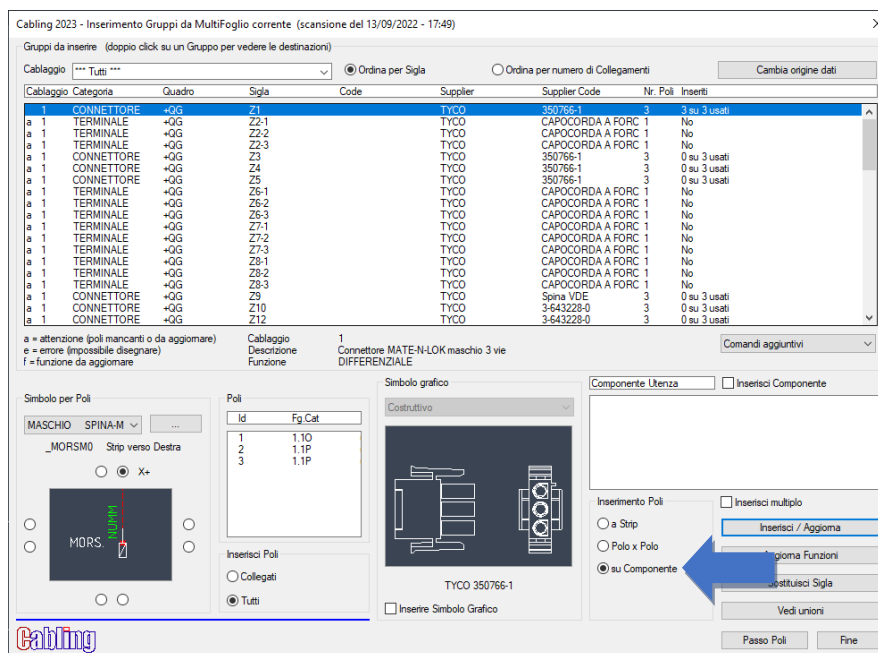
This method allows you to work easily, quickly, thinking first to the components and then to the groups and related connections, always driven by the selected harnesses layouts. We are sure that our approach will be successful.

1   MATERIALS DATABASE

1.1 MANDATORY ACCESSORIES

In CABLING 2023 the definition of Accessories for Connectors, Components and Moulded Cables in the materials database has been modified to allow the definition of the 'Mandatory Accessories'. In other words, it is possible to make sure that the accessories that appear in the dialog box when inserting a group (for example a connector) are the mandatory ones. Obviously it will be possible to change them at will as before. In the archive you will find a single button with 3 dots instead of the two buttons 'Add' and 'Del'.
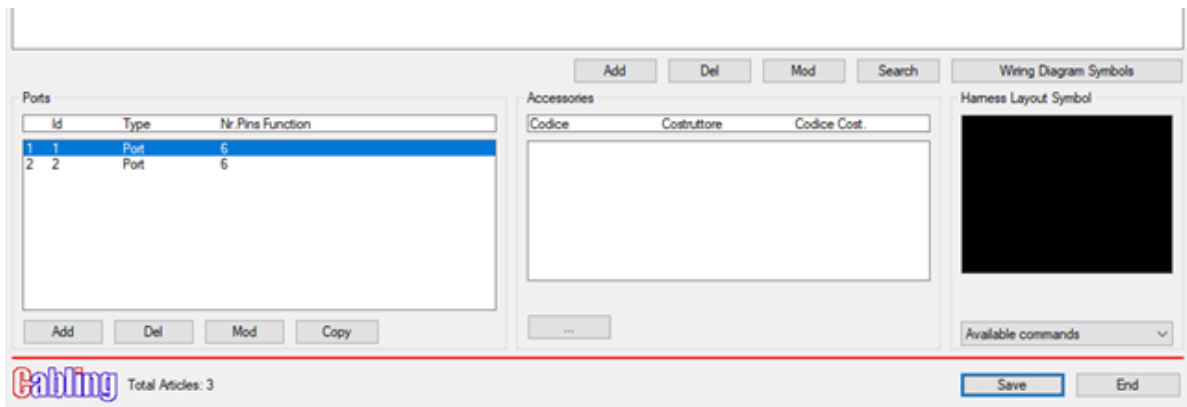
1.2 FUNCTION TO BE INSERTED IN THE PROJECTS

In CABLING 2023 the Functions already used, to be combined with the Groups / Components both in the harness layout and in the wiring / electrical diagram, are listed in the new dialog box in alphabetical order. To open the Function insertion window just select the button with the 3 dots that you find in numerous CABLING windows near the Function text box.
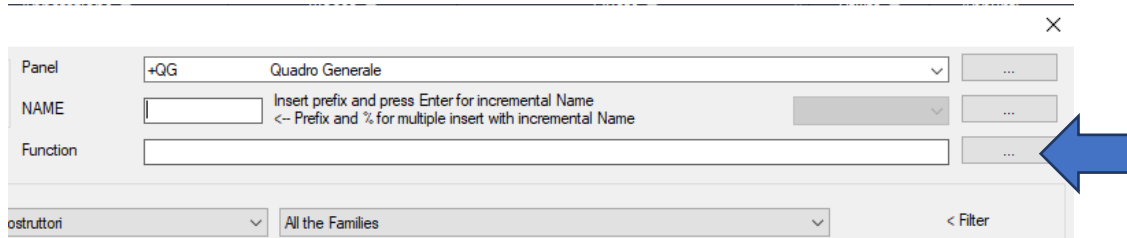
The functions displayed are all those already used both in the wire / electrical diagram and in the harness layout. The last function used in the project is highlighted in the list, otherwise the first.
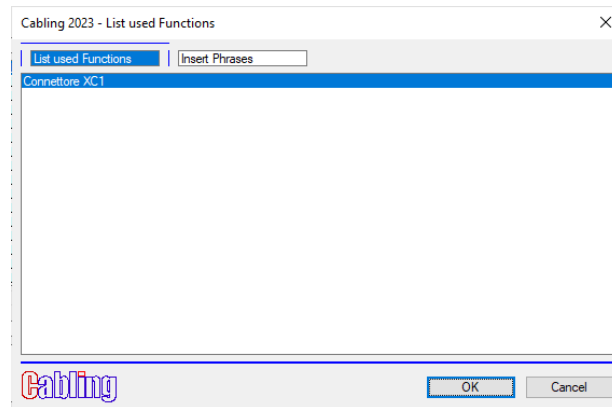
By pressing 'Insert Phrases' the window changes and the traditional one is displayed, where you can choose a phrase from the list obtained from the database of on-line phrases.
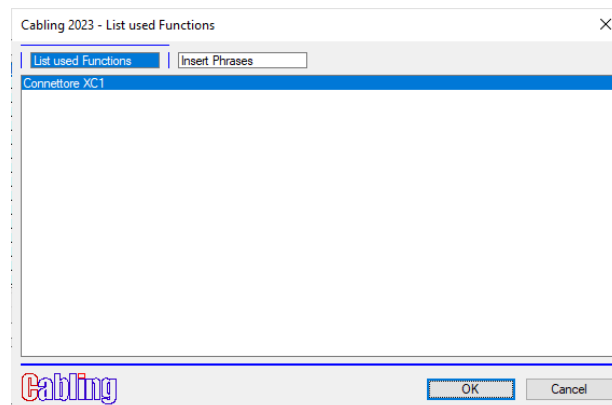
Given the importance of inserting more and more information into drawings, these new windows make it easier to find functions.

1.3 EXPORT/IMPORT DATA OF THE MATERIALS DATABASE

Two new options have been included in the utilities of the materials archive, which currently only concern a type of material in the Cabling material archive, but which can be completed by us according to your requests: 'Export data of the material database' and 'Import data into the materials database '. The basic concept is the need to export data from the Cabling archive to an Excel file, be able to modify them and be able to re-import them into the Cabling database, always referring to the material code as a unique field. In this way the 'maintenance' of the database will be easier than the modifications that can be done individually with the functions of the materials archive.
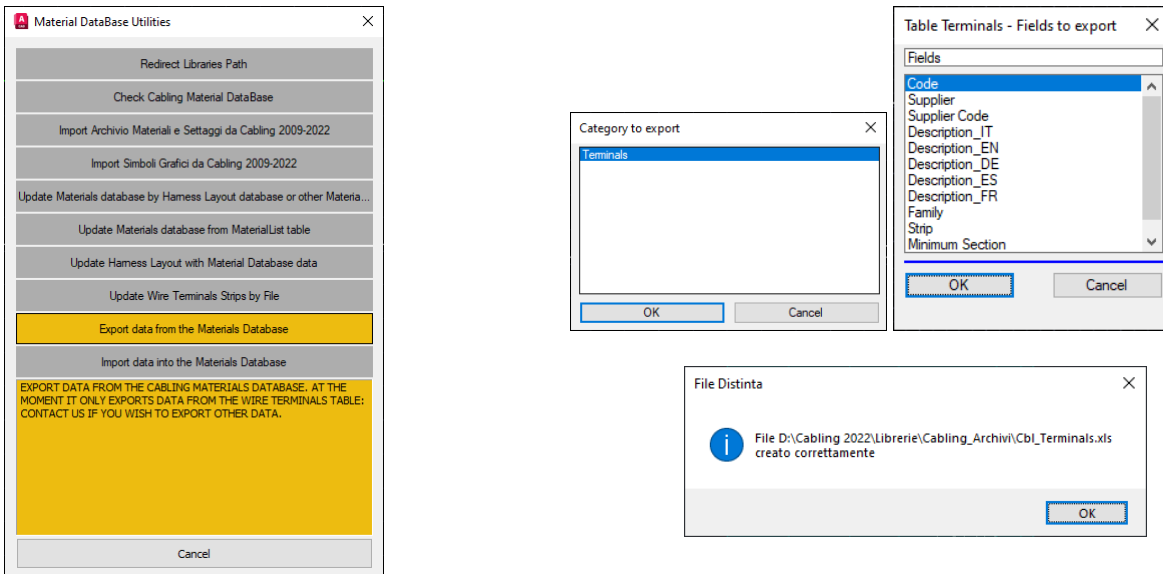
Today the only category that can be exported is that of the Wire Terminals which creates the Cbl_Terminals.xls file in the ..\Libraries\Cabling_Archivi folder. After modifying the file without changing the first line of the file, it can be re-imported with 'Import data into the Materials Database'.
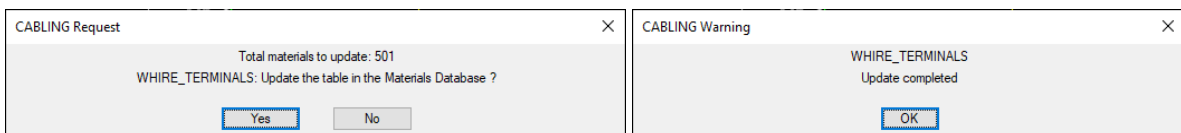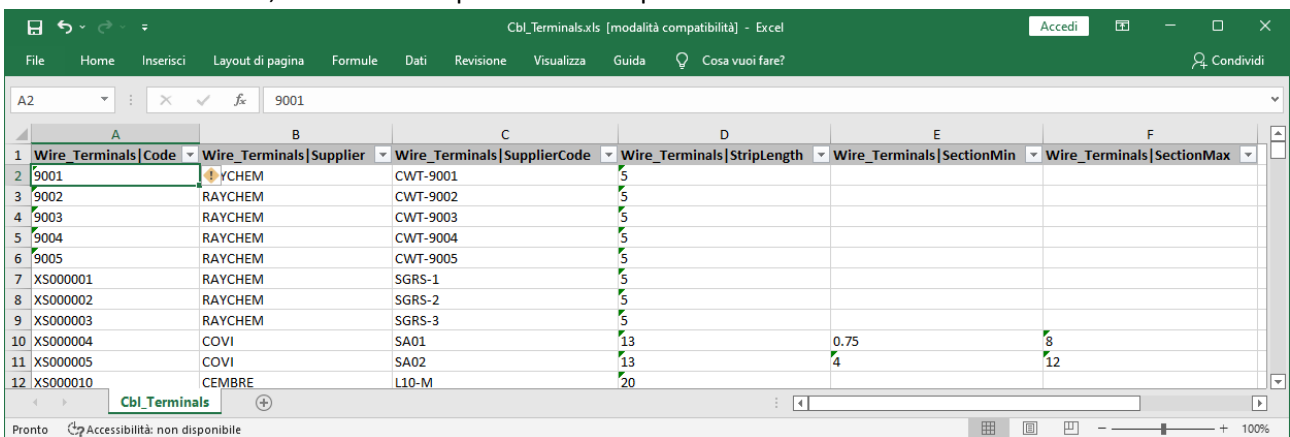
1.4 COLORS DATABASE

CABLING 2023 has a new color definition / management window in the materials database, easier to use and in line with the other dialog boxes.
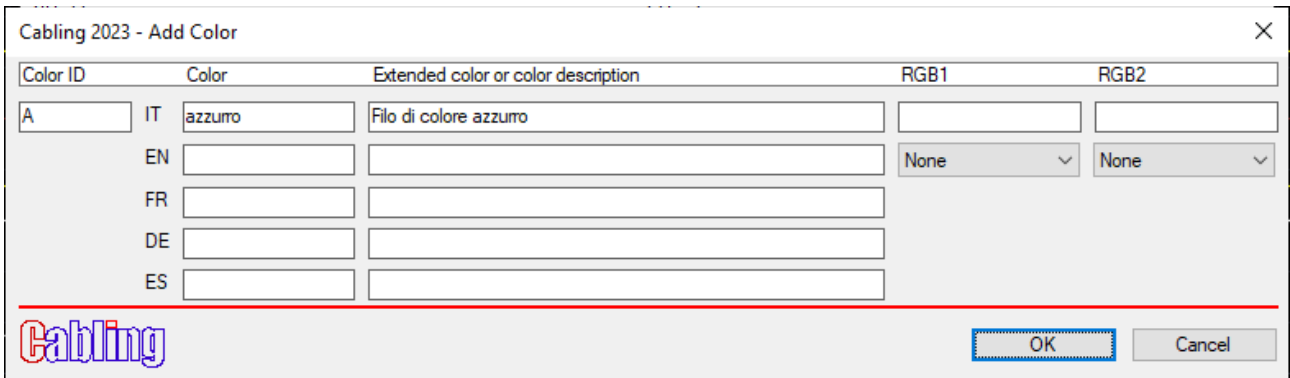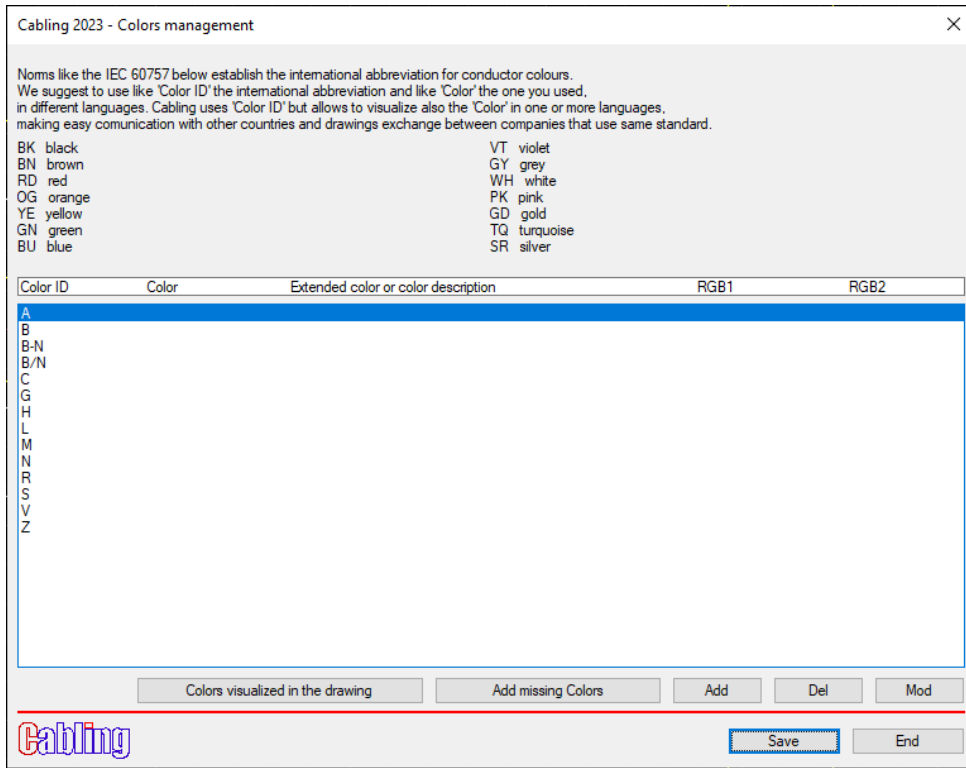
2   HARNESS LAYOUT

2.1 OTHER OUTPUT LENGTHS

Up to now in CABLING the unit of measurement of the lengths in the outputs could only be set for the Bill of Materials with the 'Harness layout settings' command. Now it is possible to do this also for all the other outputs that can be generated by Cabling by setting the unit of measurement in 'Other output lengths'.

2.2 ULTRASONIC SPLICE

Also in the settings of the harness layout it is possible to enter a maximum section for ultrasonic splice. If set with a value other than 0, Cabling checks the connections joined together by splice (not those with pre-insulated) in the 'Check Harness' command and reports any excess values.

2.3 OUTPUT GRAPHIC WIRING TABLE

In CABLING 2023 the Wiring table output has a new feature to visualize Graphic Symbol associated to the Groups using %XB1% and %XB2% tags.

2.4 GRAPHIC CABLES CONFORMATION TABLE

In CABLING 2023 the Cables Conformation table output has a new feature to visualize Graphic Symbol associated to the Groups using %XB1% and %XB2% tags.

2.5 HARNESS LAYOUT INDICATIONS

In CABLING 2023 the indications of the Groups have been enhanced with the new 'Total Connections' field which allows you to view the total number of connections arriving at the Group, thus avoiding counting the subsequent rows of the table with their detailed list.
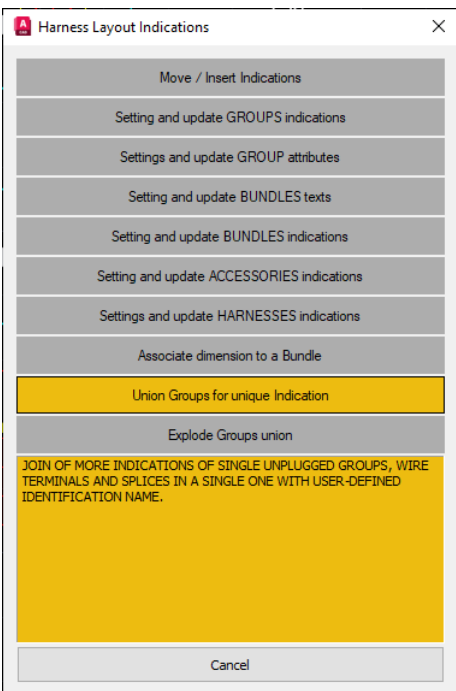
When you want to join multiple groups in a single indication, you can select the groups in the desired order but, at the end, you will be asked to confirm that the selection is complete.
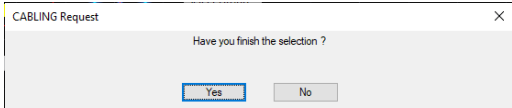
This prevents that an incorrect selection (in the empty space) close the selection cycle as it did before, forcing the user to restart the selection from the beginning.

Finally, the selection of groups with the same initial part of the names (for example Z6-1, Z6-2 and Z6-3) already proposes the common name (Z6-) in the dialog box, which you can still modify (for example using Z6). Same thing for the function: if it is common, it is proposed in the dialog box.

If you use the contextual menu on a joined indication and choose the 'Edit Group' option, the message is given that the indication refers to several groups, so for the modification you must use the contextual menu on the node of the single group or on the associated graphic symbol. However, it is possible to modify the data of the group union: a new dialog box opens where you can modify the data.
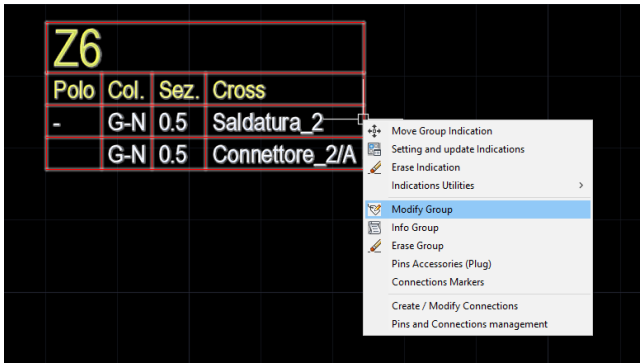
CABLING Request

Attention: the Indication refer to more Groups
Change the data of Joined Groups ?

Yes   No

Cabling 2023 - Union of Groups data

Panel	+QG Quadro Generale	...
NAME	Z6_1_2	
Function		

Cabling

OK   Cancel

2.6 3D MODULE – CONVERT CENTER LINE INTO BUNDLES

In CABLING 2023 the 'Convert Center Line to Bundles' function, which can be called up from the Utility button of the Cabling 3D toolbar (additional module), has been revised.
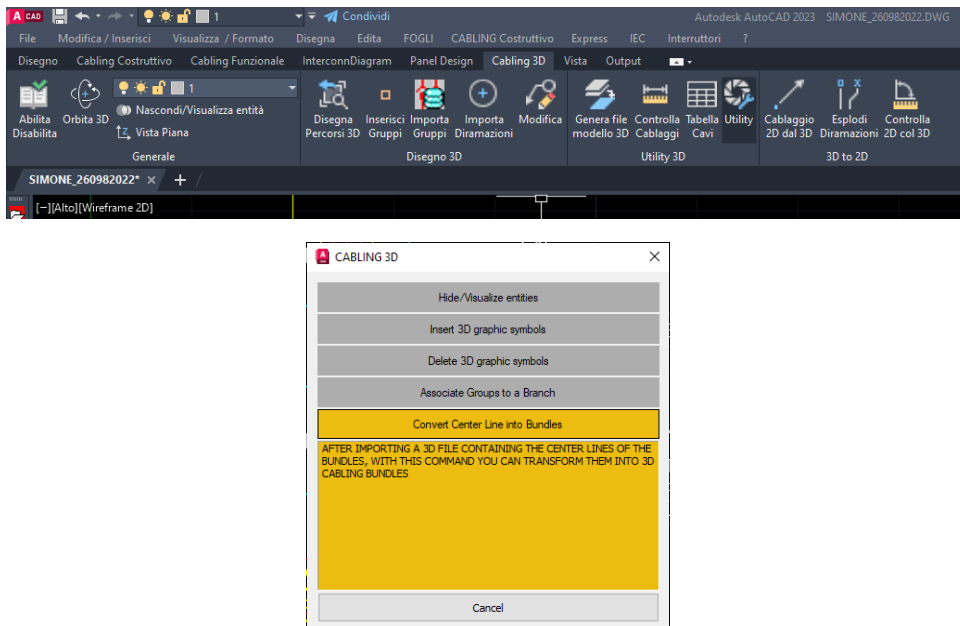
In fact, CABLING warns that the conversion of the Center Lines must be done on a layer with a name starting with 'Axis_ *' (for example Axis_1).
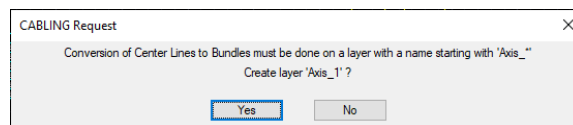
In this way the entities transformed into 3D Bundles will go on a layer dedicated to 3D, ready for the subsequent insertion of the Groups at their ends.

2.7 INFORMATION ON THE OBJECT OF THE HARNESS LAYOUT

CABLING 2023 has added a new feature to the Info... option on the groups, bundles and accessories of the harness layout. If differences are found between the information of the object inserted in the drawing and those of the materials database, a window is opened with the reports.
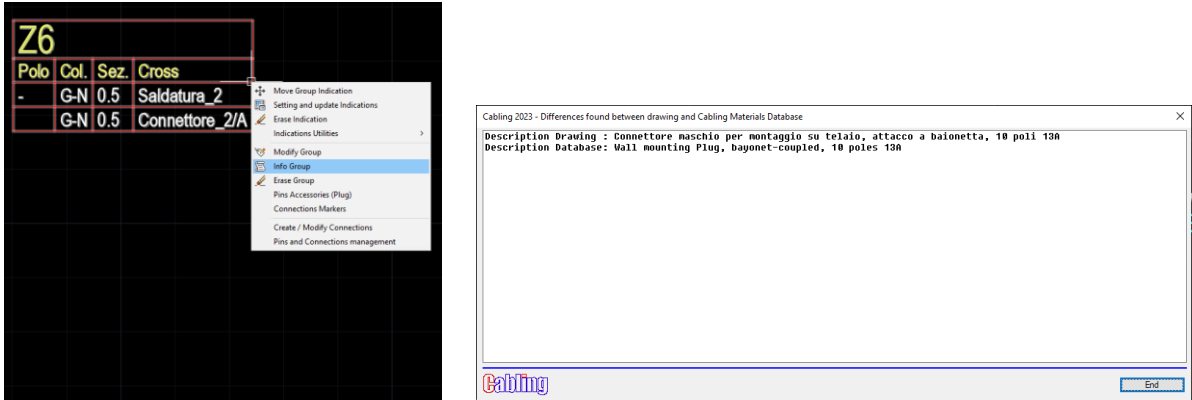
Pressing End the standard window with information on the object will be displayed:
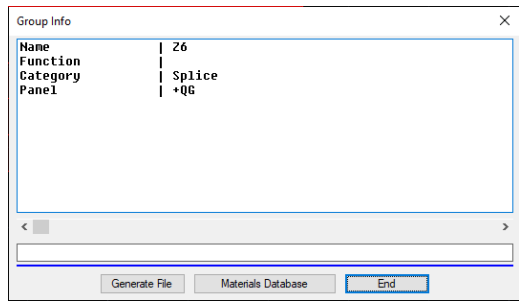
Closing the window, and only if there are differences, you are asked whether to update the drawing:
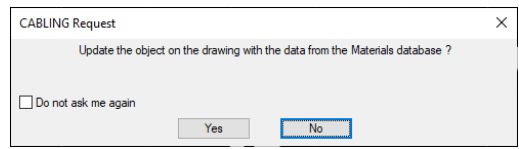
Pressing Yes, the drawing is updated and the relative indications of the Group / Bundle / Accessory updated. If there are other objects with the same code, you are asked whether to update them.

The control of the differences also takes place by checking the existence of a company code for the possible supplier and supplier code of the object: if found, you are requested to update the drawing.
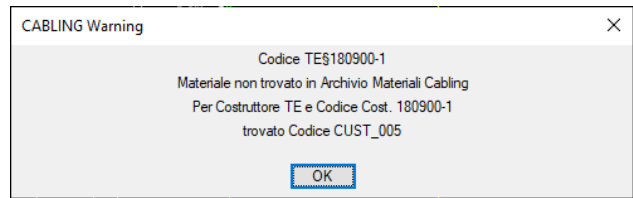
This last check allows a semi-automatic conversion of a drawing realized without company coding, if Supplier and Supplier Code match. For example, a company that design an harness can send the drawing to the company that produces it and that has a new tool to convert / update (even if partially) the drawing.

Finally, if the material is not found in any way, 'Material not found in the Cabling Materials Database' is reported.

These additional controls allow the user to have an even clearer view of the content of CABLING 4D drawings.

2.8 INDICATIONS FOR GROUPS ATTRIBUTES ON HARNESS LAYOUT

CABLING 2023 has added a new checkbox in the 'Group Attributes Settings' window: 'Ask for Attributes insertion point'. During the insertion of the Groups in the harness layout, the graphic symbol is inserted, the attributes associated to the Group (Code and Function) are automatically filled in the standard position and, if this option is active, the size of the attributes is displayed and the new posizione is asked. Finally, the position of the Group Indication is asked.

The new option speeds up the work as it is no longer necessary to subsequently move the attributes if they are superimposed on the graphic symbol, as often happens.
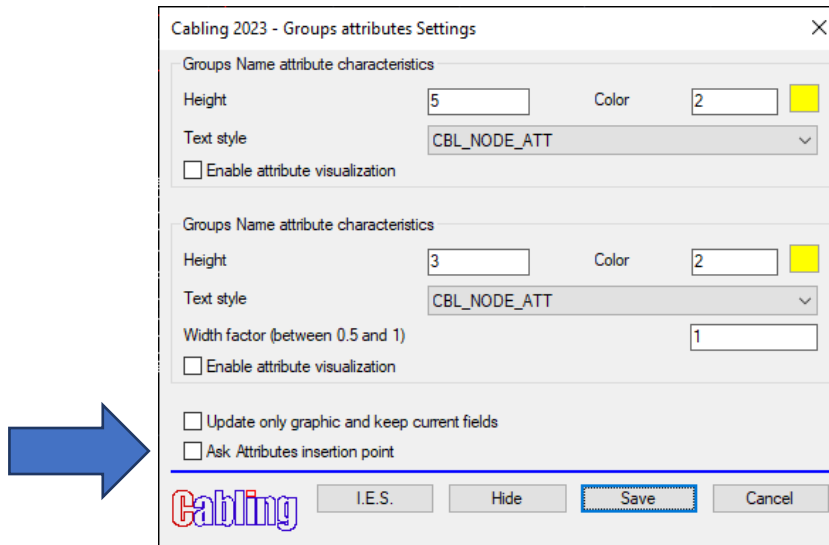
2.9 ASSOCIATION OF A DIMENSION TO MORE BUNDLES

In the contextual menu of a Bundle, using the 'Utility → Associate dimension to Bundle' option now a window opens to choose the option 'Associate the dimension to the selected Paths' as it was possible until now or' Associate the dimension to more Bundles': this new option allows you to choose other consecutive Bundles to the one selected and updates the dimension value with the sum of the lengths. Editing any of the Bundles updates the sum of the lengths.
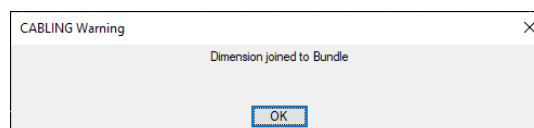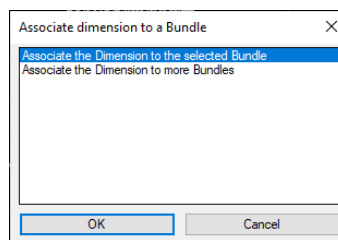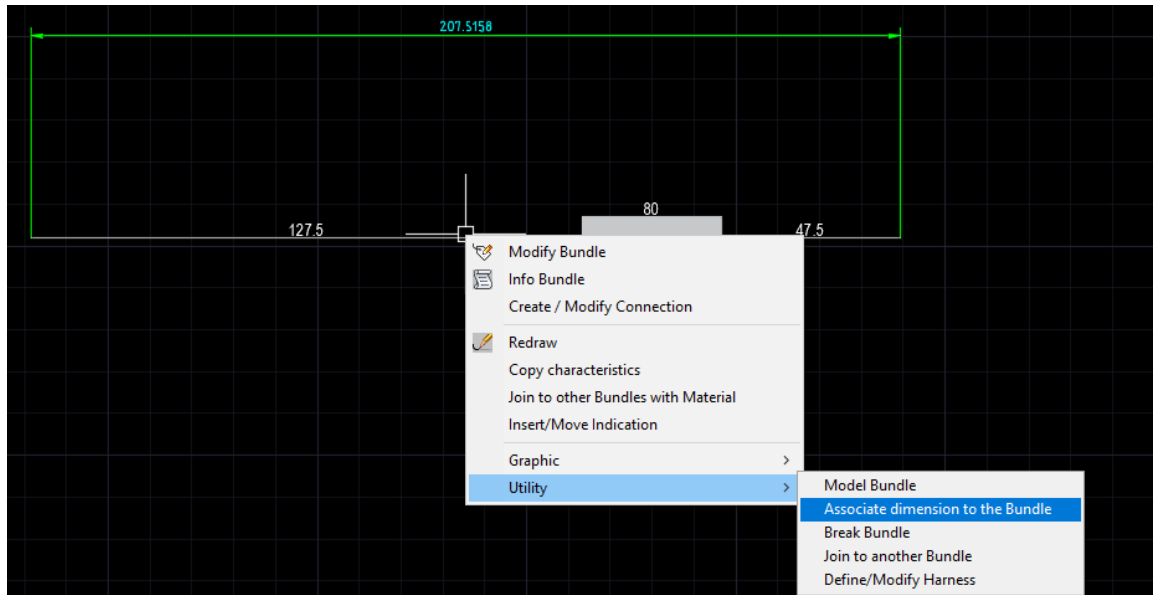
2.10 CHECK BLOCKS INSERTED IN THE LAYOUT

In Cabling 2023 the 'Check blocks inserted in the drawing' function of the UTIL → Utility Cabling menu command has been enhanced with the check that the graphic symbols inserted for Groups and Accessories are aligned with those declared in the materials database.
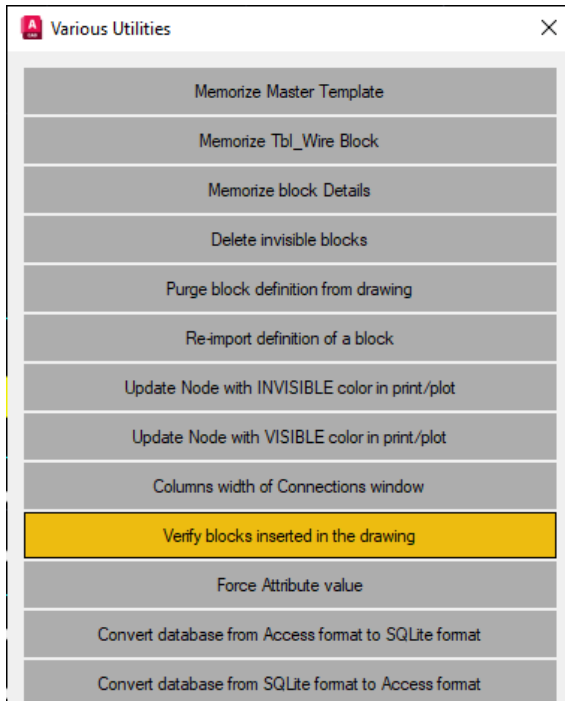
At the end, if errors have been found, a dialog box opens with the errors found and you can use the available option in the contextual menu to update them.
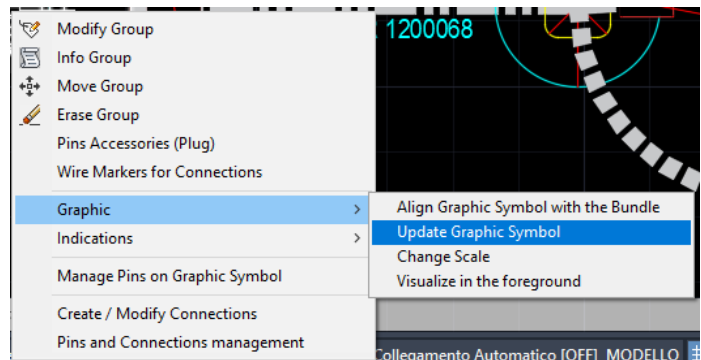
This tool has been added to increase the checks of the harness layout in case of modifications or revision of old drawings.

2.11 CHECK SPLICES POSITION

CABLING 2023 increases the controls to make the harness layout as precise, error-free and optimized as possible. For this reason, the new item 'H - Check Splices Position' has been added, which verifies that the position of the insertion of the Splices in the Bundles is correct with respect to the position of the Groups to which they are connected in the harness.
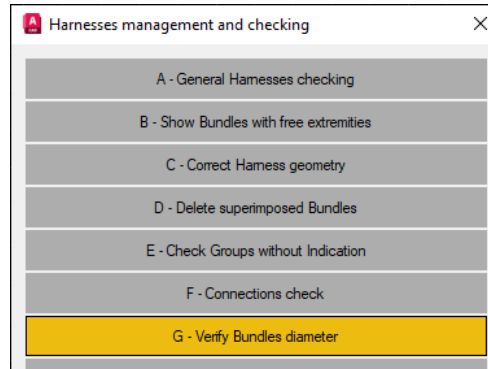
After launching the control, a dialog box appears with the list of Splices found and which are in an incorrect position: pressing OK highlights the Bundles with relative departures and arrivals in which the splice would be positioned more correctly.
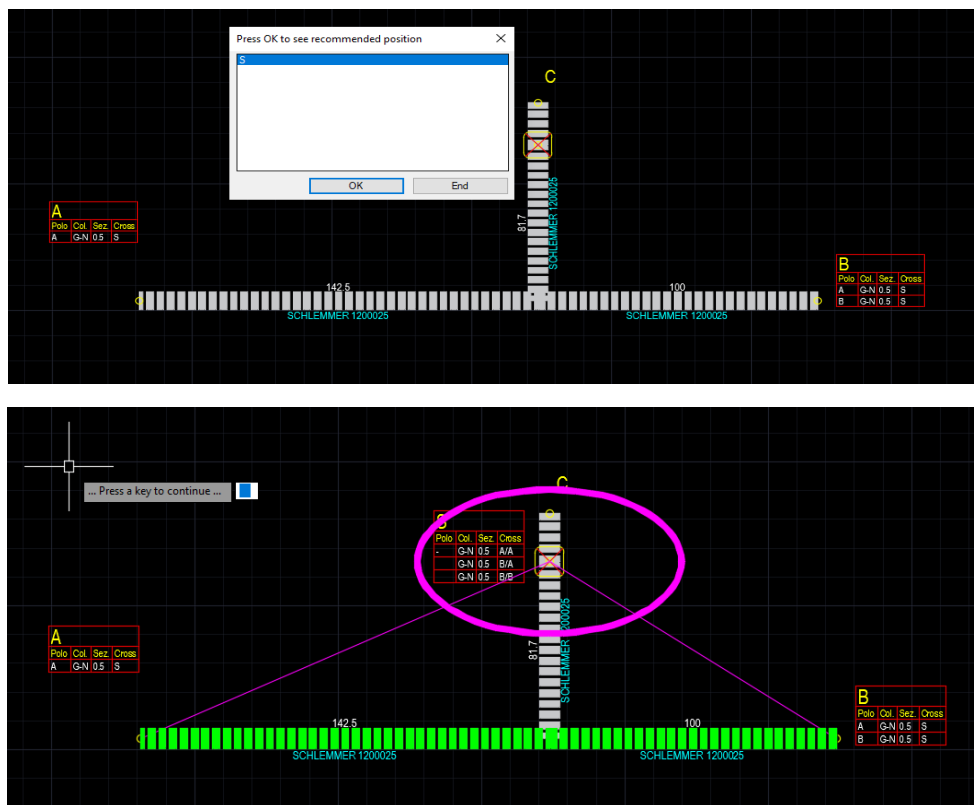
In the example, the position of the S1 splice would be in a more correct position if it were inserted in the horizontal paths because none of the connections related to the splice involve group C. This case is elementary, but on complex harness such as the automotive one, this tool will be extremely important.

2.12 CHECK DIAMETER BUNDLES

CABLING 2023 increases the controls to make the harness layout as precise, error-free and optimized as possible. For this, the 'G - Check Diameter Bundles' option has been modified: it checks the diameters of the Bundles with respect to the calculated diameter of the connections that run through them.
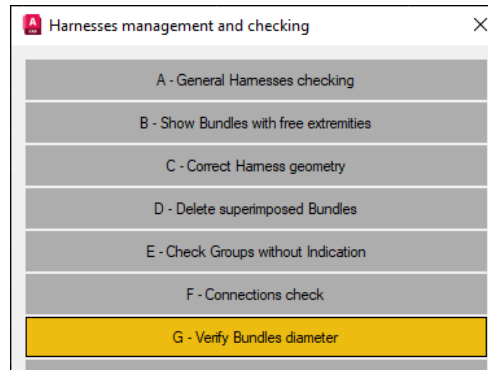
The following changes were made in the control:
- If a Bundle is taped, the check is carried out not on the width of the tape but on the set 'Diameter for tape calculation'.
- If a Bundle has only one wire, its diameter is considered, if it has two, the sum of the diameters is counted, if it has three or four with the same external diameter, a geometric calculation is made, making the control more precise than before.
- In all other cases, the check is carried out as before.
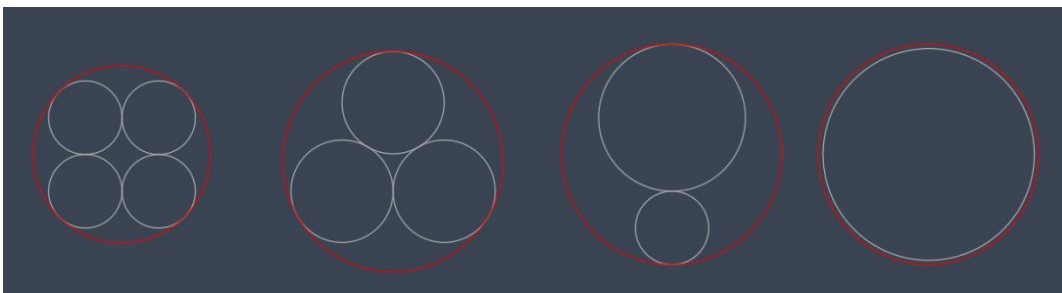
Finally, the 'View' button has been added in the window that reports errors, which allows you to view the Bundle on the harness layout.
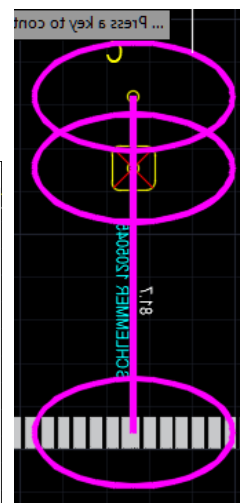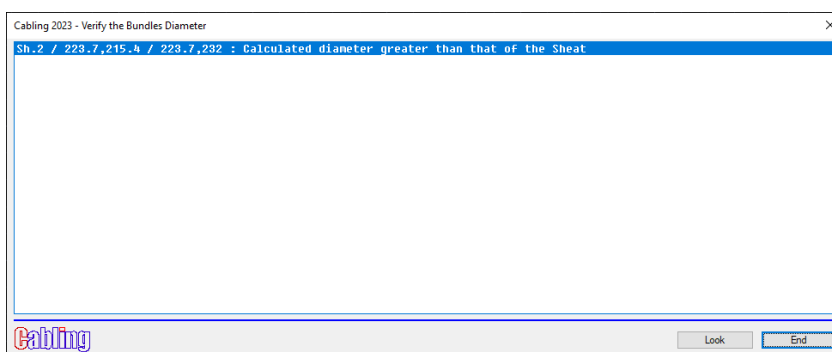
2.13 IGNORE ACCESSORY IN BILL OF MATERIALS

In the BOM it is now possible to exclude accessories. In the windows for inserting and editing Accessories or Sheath pieces as accessories, there is now a check box that allows you to ignore the object in the bill of materials.

Furthermore, even the visible accessories associated with a ignored Group are automatically ignored in the bill of materials.

2.14 ACCESSORIES - OTHER ACCOMPANYING MATERIALS

In CABLING 2023, other types of material have been added to the 'Other accompanying materials' button: Components and Terminals.
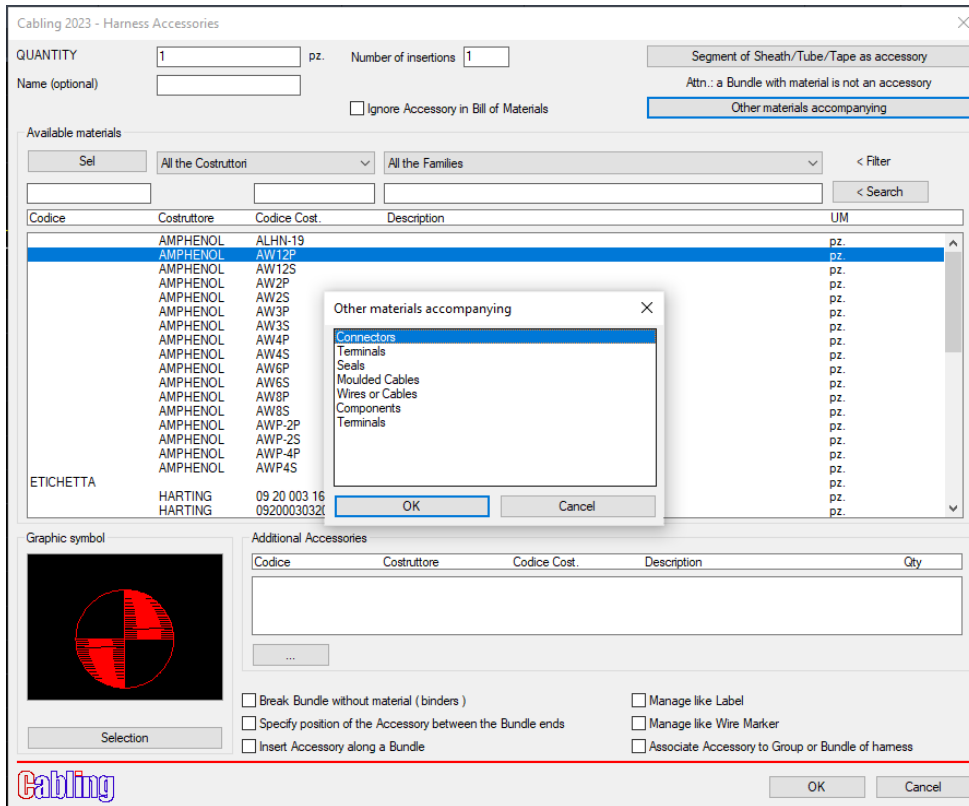
They always follow the same rules as the other materials.

2.15 ACCESSORIES ON BRANCHES

During the insertion of a Branch it is now possible to insert one or more accessories to be combined with it.

In fact, the Accessories area, previously frozen, is now active allowing you to choose the desired accessories that will be inserted as visible accessories and matched to the branch node. For this reason, if an accessory does not have An associated graphic symbol it cannot be inserted and the following message is returned:
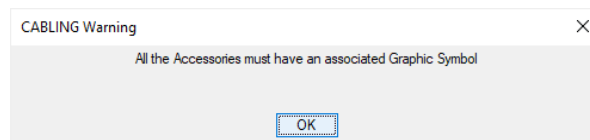
2.16 IMPORT → CONVERT ENTITIES TO 2D BUNDLES

This command, already present in previous versions, has been revised in this version. It allows you to transform a drawing formed by lines/circles in a harness formed by Cabling Bundles.
To start it from the menu:
Harness Layout -> Import -> Convert Entities to 2D Bundles

Before proceeding with the conversion you can set the options available to retrieve the lengths of the Bundles, if they are present as texts in the drawing. From the menu:
Harness Layout -> Import -> Select data on reference drawing
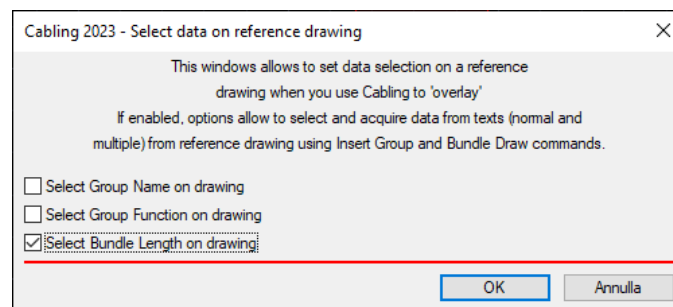
Use only the 'Select the Bundle Length on the drawing' flag.

The conversion asks you to select the destination sheet of the converted entities and to select the lines, polylines and arcs that form the harness Bundles.

- **Select first segment of the Bundle / Enter to finish**
- **Select successive segments of the Bundle**

In case of selection of non-consecutive segments, a message is given:
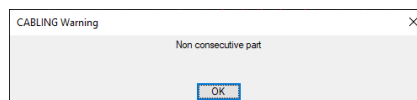
Once the selection has been completed (with <ENTER> on the keyboard or the right mouse button) the starting point of the new Bundle is requested: if you press Enter, the starting point of the Bundle is used, otherwise the selected point, after checking that it is correct. The same thing is done with the end point. The selection of the starting and ending point was introduced because often the entities do not start / end at the branch points, such as the highlighted horizontal line of the image below.
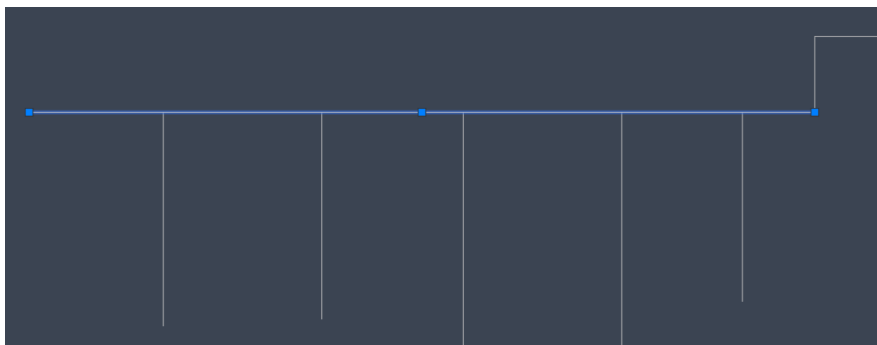
Finally, if the option is active, the selection of the text indicating the length of the Bundle is requested.

- **Select text with Bundle length or Enter**

Any selected text will be displayed as Length in the window to assign or not the material to the new Bundle.

The command is cyclic, once the selection of the interruption points has been completed, it will continue to request the selection of the segments to be converted.

2.17 ACCESSORIES FOR PINS

The Accessories for Pins have been enhanced allowing accessories to be associated also with the Pins of a Unplugged Group. Each pin of a Connector / Unplugged Group can have a terminal, a seal or an accessory according to the table below.

Type	Wire Terminal	Seal	Plug	Accessory
CONNECTOR	Yes/No	Yes (if terminal is present)/No	Yes (if no terminal is present)/No	Yes (if no terminal is present)/No
UNPLUGGED GROUP	Yes/No	No	No	Yes (if terminal is present)/No

The goal was to enhance the unplugged groups to simplify the harness layouts. In fact, user preferences change according to the type of company and the type of Harness. Those who produce harnesses prefer to design the single pins that connect to a usage (see image), the companies that design the harnesses for their applications / vehicles / equipment prefer to design an unplugged group with two pins, where the wire terminal can still be inserted (for example a faston) and the relative faston cover. For this reason, selecting an Unplugged Group with the context menu and, selecting the 'Accessories Pins' option, CABLING opens this new window in which only the pinss with connections are displayed.
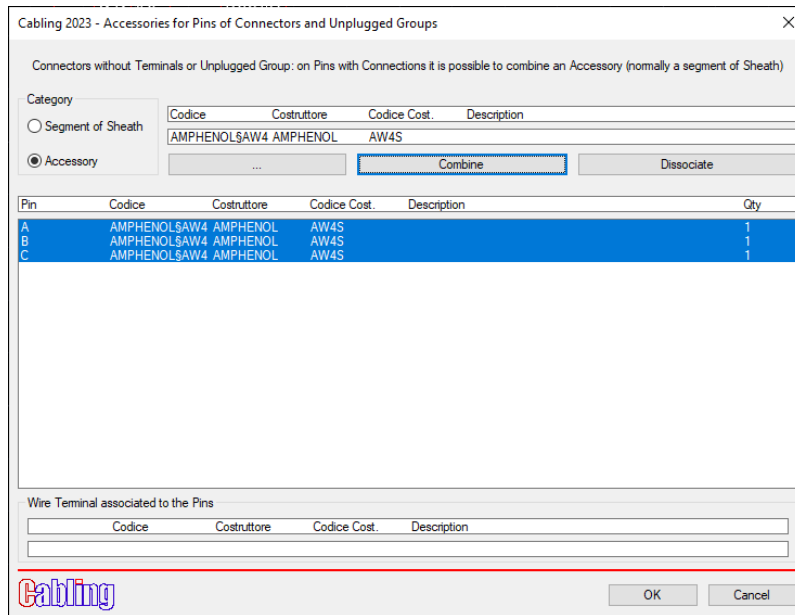
For example, it is possible to apply a piece of thermo sheath on the pins of a D-Sub connector to isolate the welds or insert faston covers on the faston terminals defined during the connections. In this last case, the terminal associated with the selected pins appears in the lower part of the window: by selecting a faston cover accessory with the button with the three points, it appears in the upper part of the window where you can combine it with the chosen pins. Finally, with the Disassociate button, you can remove the accessory from the selected pins.

If in the Cabling materials database you have associate an accessory (for example a faston cover) to a wire terminal (for example a faston), the accessory selection window already offers the associated accessory, facilitating and speeding up the search.
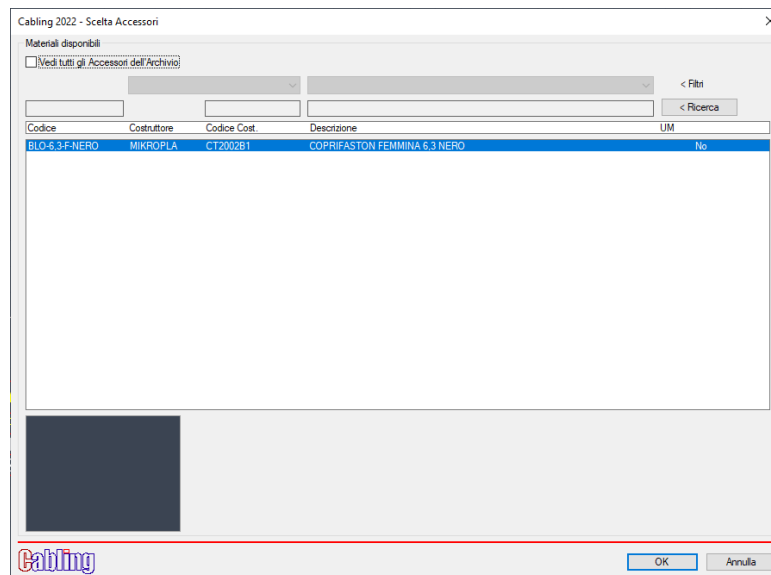
2.18 OUTPUT

In CABLING 2023 the outputs were revised by removing the section of the screens, as now only happened in the indications of the groups, unifying the way to work.
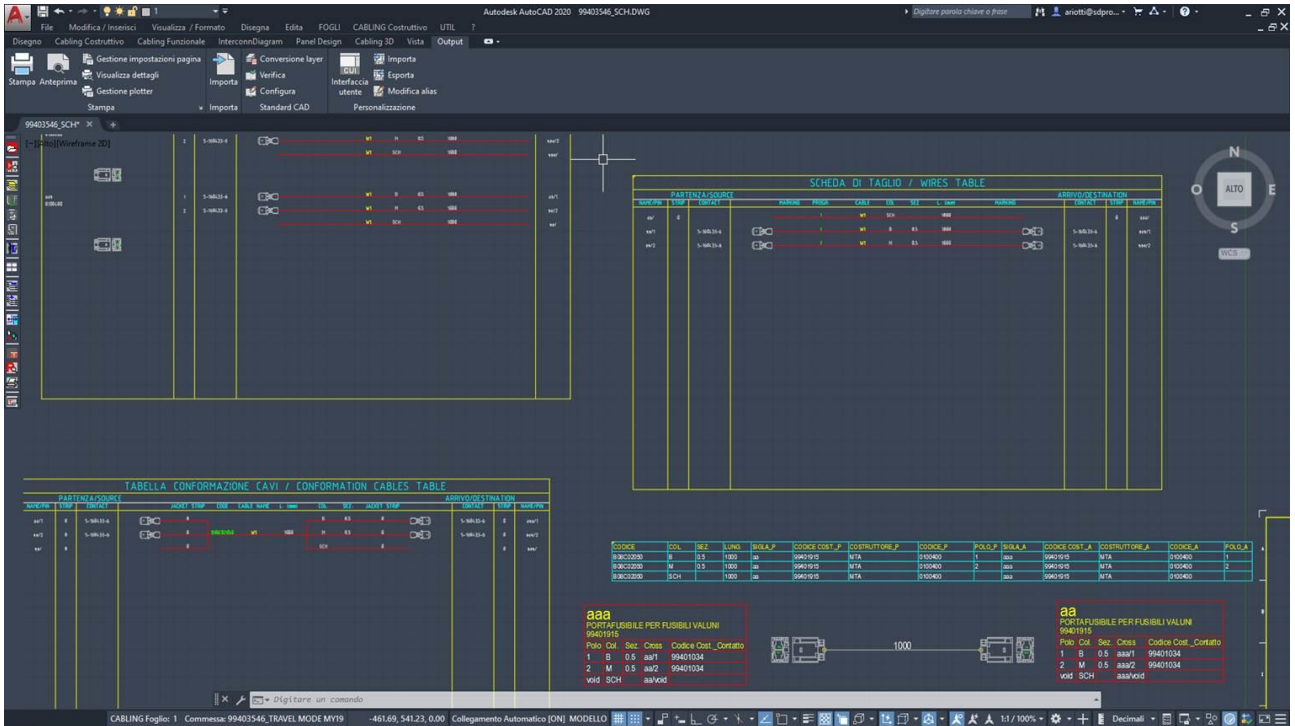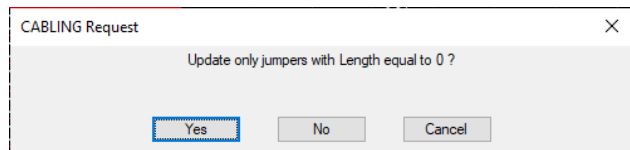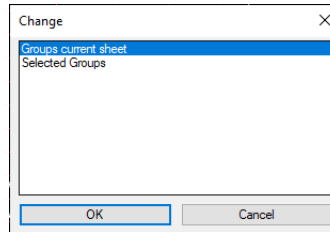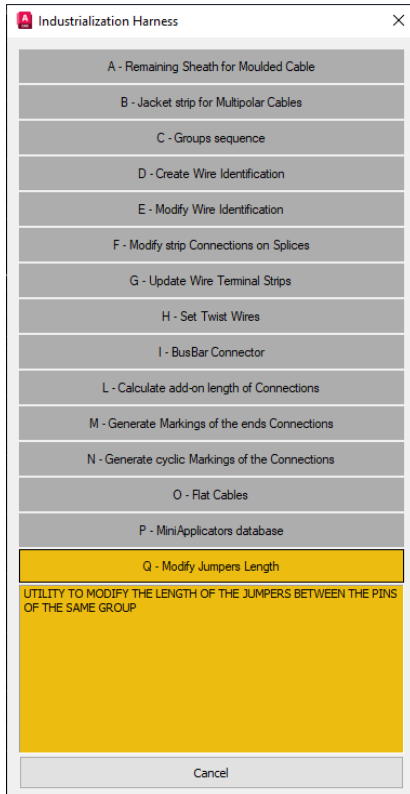
2.19 JUMPERS LENGTH

In CABLING 2023, a new option has been added in the 'Industrialization' command that allows you to update the jumpers on the same Group: 'Change Jumpers Length'.

Industrialization Harness

A - Remaining Sheath for Moulded Cable

B - Jacket strip for Multipolar Cables

C - Groups sequence

D - Create Wire Identification

E - Modify Wire Identification

F - Modify strip Connections on Splices

G - Update Wire Terminal Strips

H - Set Twist Wires

I - BusBar Connector

L - Calculate add-on length of Connections

M - Generate Markings of the ends Connections

N - Generate cyclic Markings of the Connections

O - Flat Cables

P - MiniApplicators database

Q - Modify Jumpers Length

UTILITY TO MODIFY THE LENGTH OF THE JUMPERS BETWEEN THE PINS OF THE SAME GROUP

Cancel

Change

Groups current sheet
Selected Groups

OK   Cancel

CABLING Request

Update only jumpers with Length equal to 0 ?

Yes   No   Cancel

After the questions made with the upper dialog boxes, CABLING updates the jumpers of the drawing and updates the Indications. All you have to do is update any previously generated outputs.
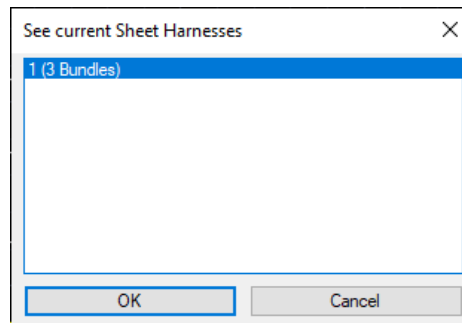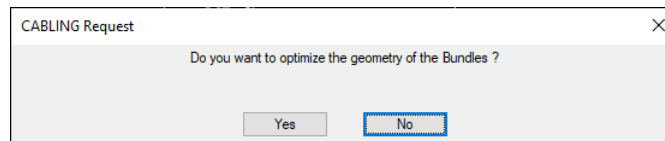
2.20 LIST OF GROUPS

In CABLING 2023 the Groups list could find Bundles under construction without any Groups having been added yet. In this case the following question is asked:
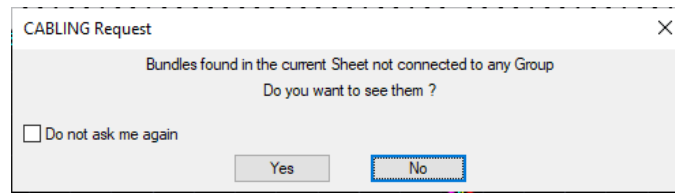
You are asked if you want to proceed with the optimization of the Bundles and the dialog box opens with the list of Bundles connected together (harnesses).

By pressing OK you can see the Bundles of the selected Harnesses. This command is very useful for correctly drawing the harness or harnesses before proceeding with the insertion or import of the Groups at their ends.

2.21 REGENERATION OF THE GROUP INDICATIONS

Until now, if you sent a harness layout to another company that does not have the same wire and cable codes in the Cabling material database, the Group Indications were regenerated without the color and section. In CABLING 2023 the Indications of the Groups are now regenerated correctly, without losing this information.
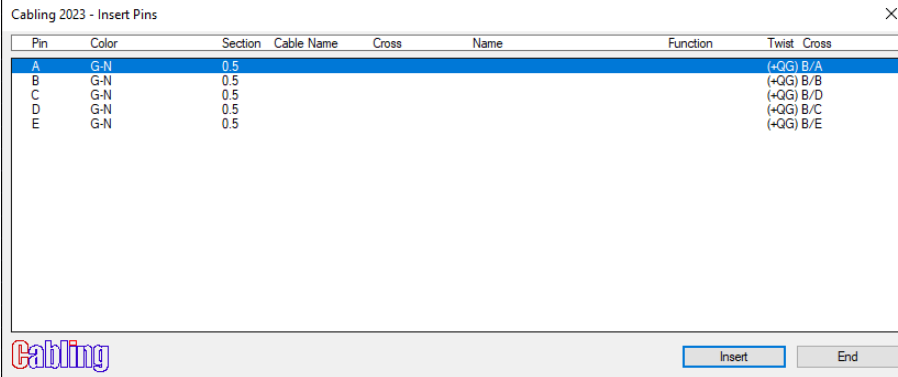
It may be that in an harness layout made with an old version of Cabling this does not happen.

3 WIRING DIAGRAM

3.1 PINS INSERTION OF THE GROUPS IN THE WIRING DIAGRAM

In CABLING 2023 the insertion of the Pins of the groups in the Wiring diagram in the 'Pin by Pin' mode with the import of data from an harness layout or from the import of a file has been improved. After closing the main window for importing Groups, the next window opens where the user sees the pins to be inserted and their connections.


This allows you to insert the Pins in the desired order also based on their connections: for example, if the connections are twisted, you can draw them close together as they will facilitate the representation of the twists on the connections.
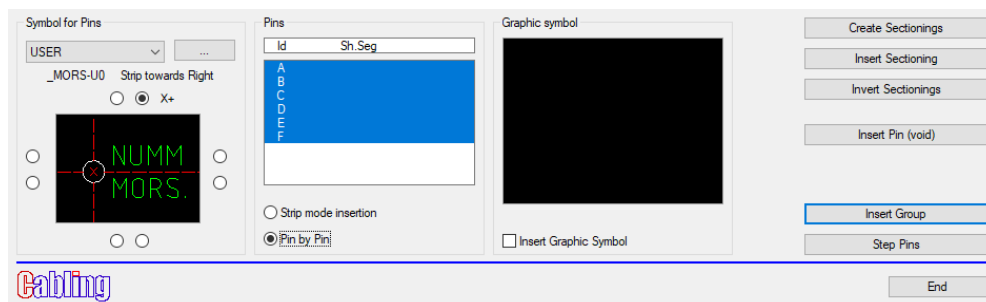
Finally, in the 'Pin by Pin' design has been introduced the possibility of inserting the Pins semi-automatically according to the direction and step, without trying to manually insert them in the correct position. After the insertion of the first Pins, if at the request of the insertion point of the following ones, press Enter, the usual contextual menu opens: at the top there is the new option 'Insert in calculated position' which will insert the chosen pin in the correct position based on to direction and step.
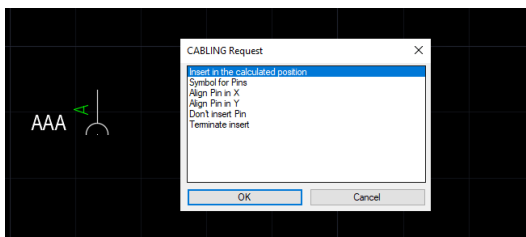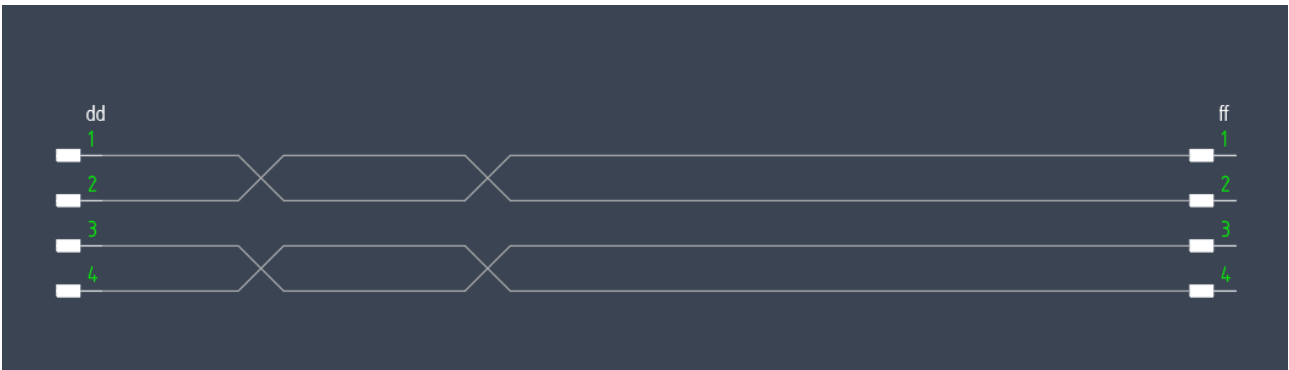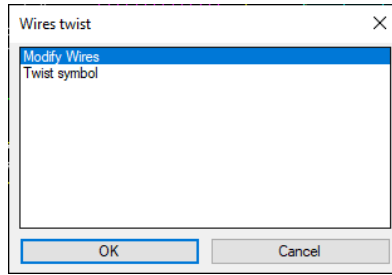

This new mode allows you to draw the pins in a faster and more precise way: just two Enters on the keyboard are enough even without using the mouse.
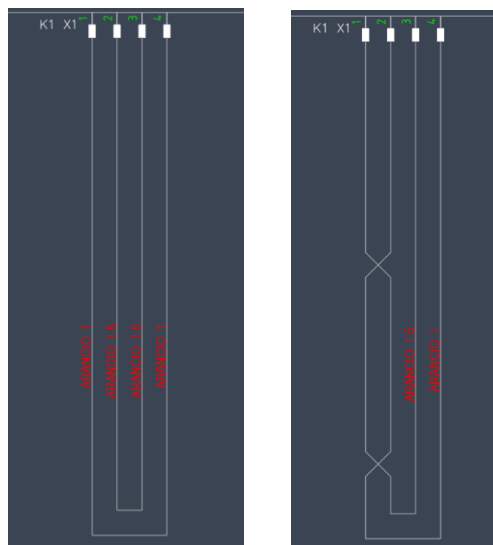
3.2 DISEGNO CICLICO TWISTATURE FILI

In CABLING 2023 it is now possible to insert twist, with the 'Modify Wires' mode, in a cyclical way.
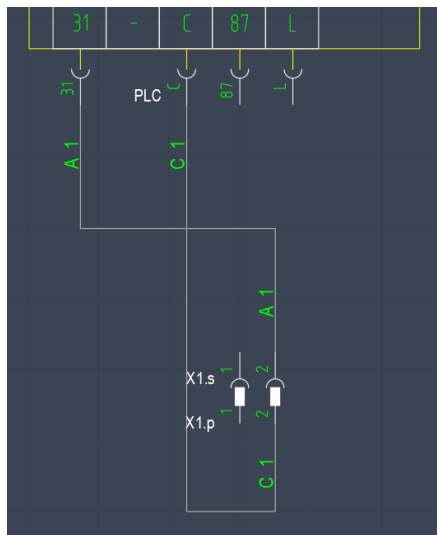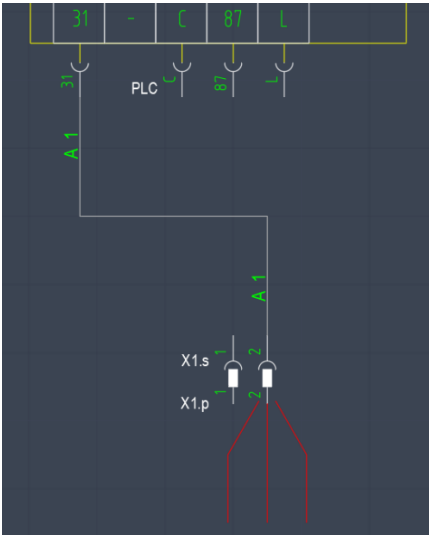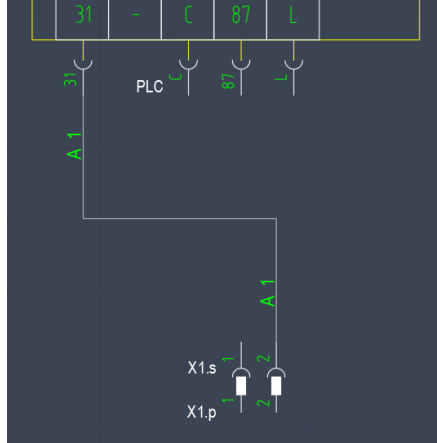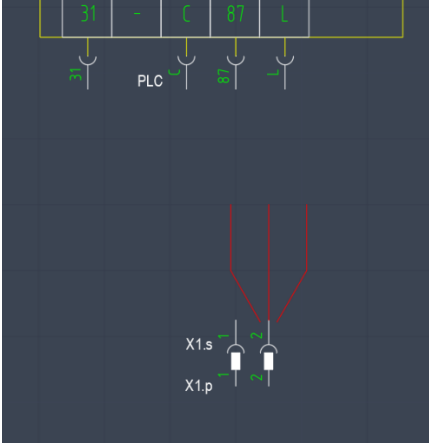

In the presence of the Connection Indications, if they are found in the twist area interval, they are automatically deleted.
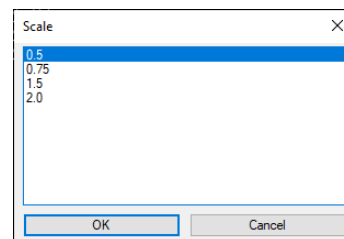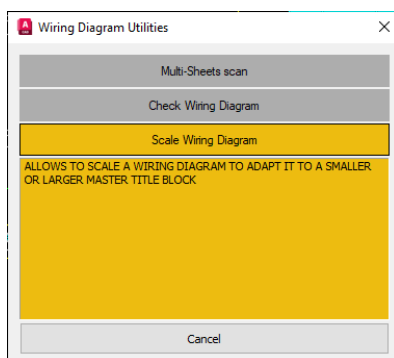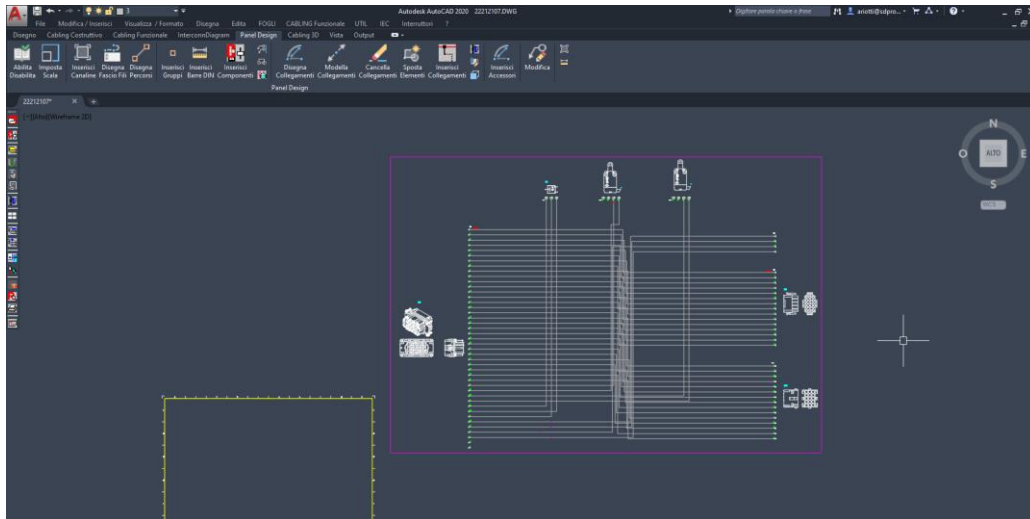
3.3 CONNECTIONS

In CABLING 2023 the connections design has been improved in the presence of sectioning: in fact, if the Male / Female pins are adjacent, the symbol asking for the direction is halved with only the possible directions.

3.4 SCALE THE WIRE DIAGRAM

In CABLING 2023 the wiring diagram contained in a Sheet can be automatically scaled to adapt it to a smaller or larger title master block without losing any information.


With the command CABLING Wiring Diagram → Wiring Diagram Utilities the new scale is requested and CABLING performs the scale maintaining the same standards as regards the connection indications.
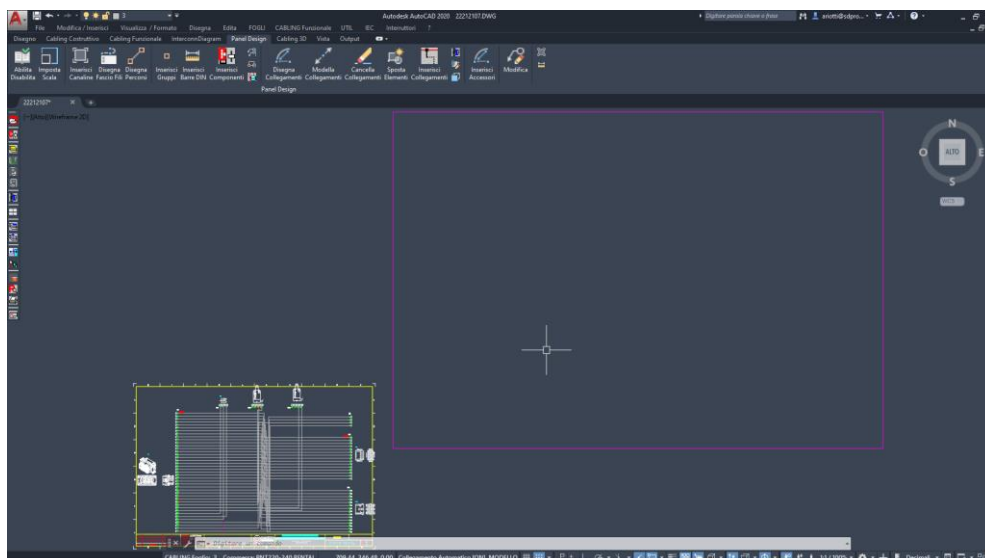
3.5 INSERT RETURNS

In CABLING 2023 the insertion of Returns starting ftom the menu, by pressing 'Enter for options', was completed with the new option 'Returns on Connections', already present in the contextual menu of a Connection and in the Connections Utilities.
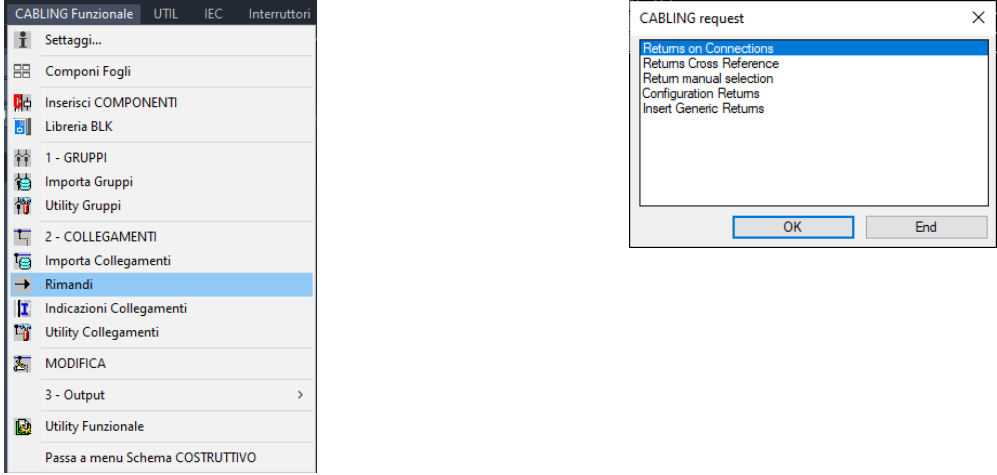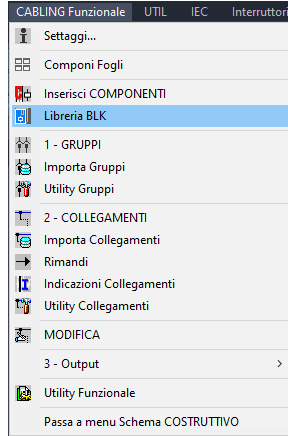
The messaging has also been improved: if the selection of a connection is made in an incorrect point, the following window now appears:
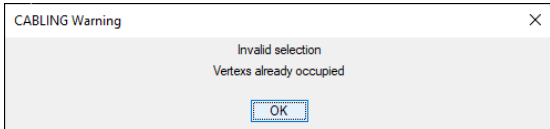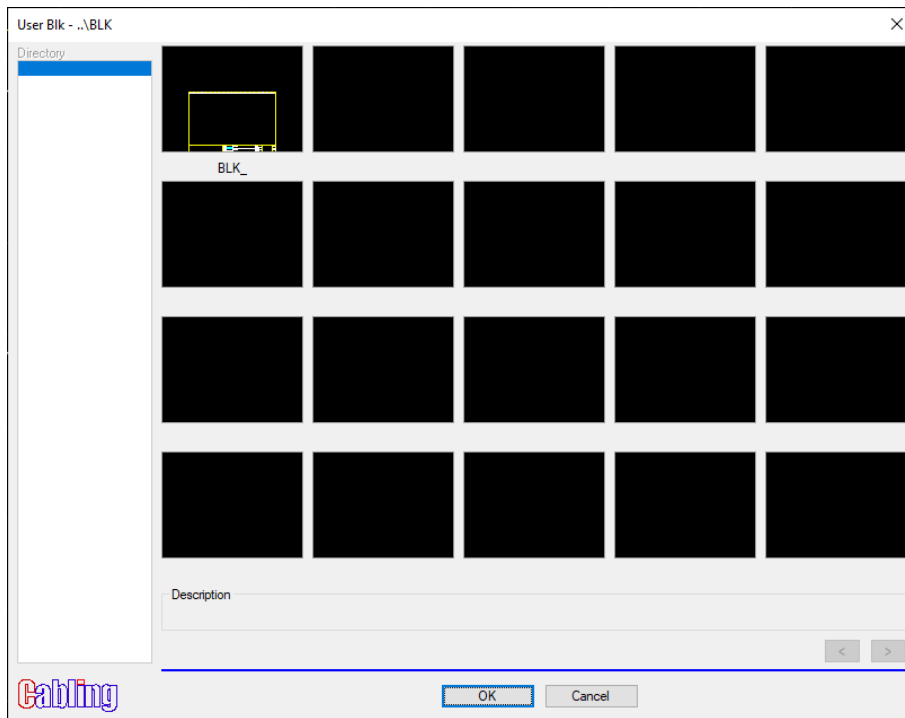
3.6 BLK LIBRARY

In CABLING 2023 it is possible to insert the BLK symbols directly with a new command on the menu, while the IEC ones (for example) continue to be inserted from the dedicated menu, decided with the 'CONFIGURATION' command.

The following dialog box appears where you can choose your User symbol from the BLK folder or from a sub-folder.

We refer in the next chapter how the insertion of these blocks can be used.

| 3.7 MOTHER / CHILDREN COMPONENTS MANAGEMENT |
|---|

In CABLING 2023 a Component can be managed with a single graphic symbol (the standard) or with one or more additional graphic symbols. The reasons for having multiple graphic symbols are:
- Design requirements (relais and related contacts scattered in the wiring diagram)
- Need to divide a complex graphic symbol into several parts (card with numerous I/O)

To insert the additional graphic symbols it is necessary:
- Insert the main graphic symbol defined in the materials archive
- Transform the component's graphic symbol into a 'MOTHER' to which one or more additional graphic symbols added as 'CHILDREN' can be added
- The 'CHILDREN' graphic symbols must have the same initials as the 'MOTHER' to be considered the same component.
- The 'CHILDREN' graphic symbols have no material and function, data that are taken from the 'MOTHER'.

The contextual menu of a Component inserted in the wiring diagram now has a new option: Add / Remove 'MOTHER' Tag which allows you to transform a normal graphic symbol into a MOTHER to which you can attach CHILDREN graphic symbols.
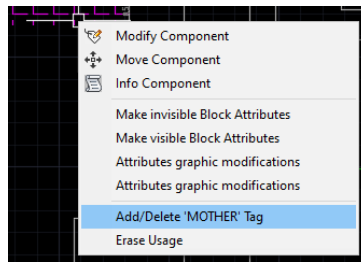
If you insert a Normally Open contact from the IEC menu (for example) and if there is at least one Mother in the wiring diagram, a new dialog window opens:
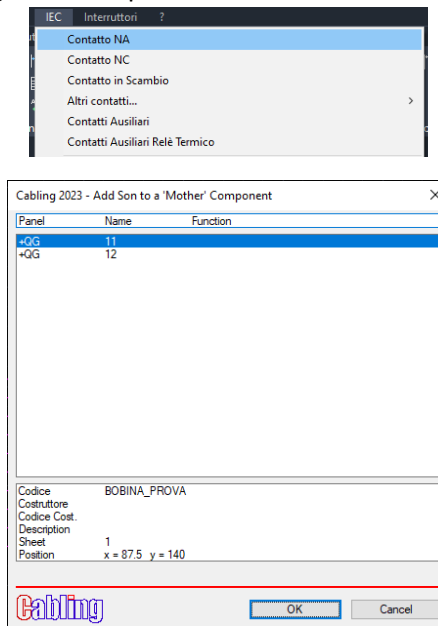
After having chosen the Mother name, the contact is inserted with the same name and the Pins/Groups of the Components window opens, where you can choose Port and Pins to associate with the contact.
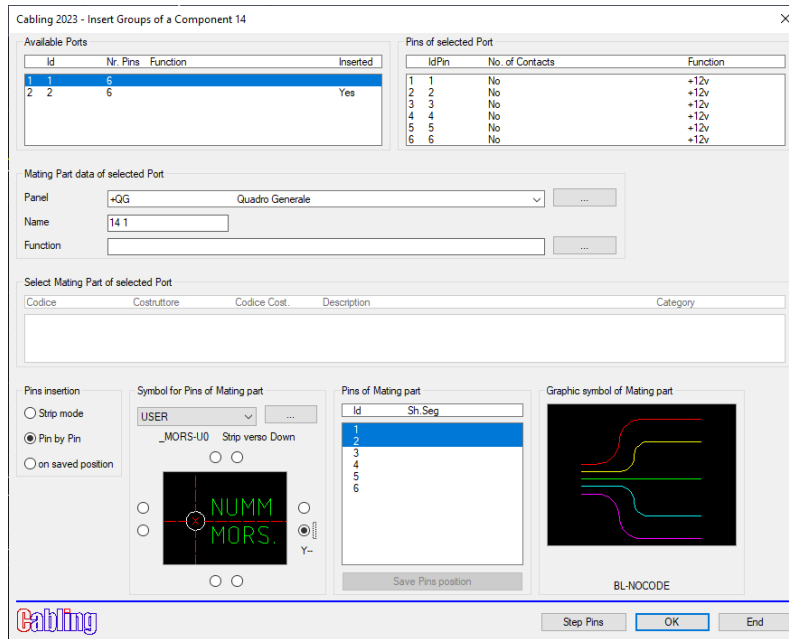
3.8 INSERT COMPONENT SYMBOL AS GRAPHIC

In CABLING 2023 a Component inserted starting from the 'BLK Library' command or from the IEC menu (for example) that is not associated with any material in the materials database can be inserted as graphics. In this case the following question is asked:
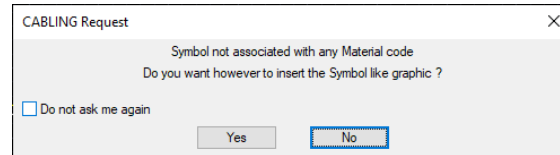

If you choose Yes, a subsequent dialog box opens where you can insert the component data and then insert it in the desired position.
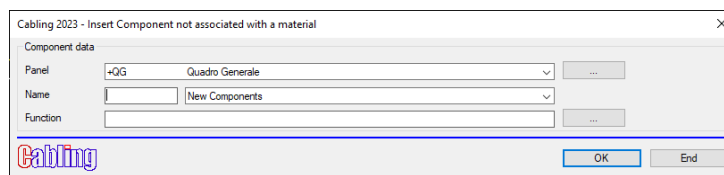
The component will not be managed as a Usage but will appear in the 'Components List' and 'Components Function List' outputs.

If the Component is associated as a graphic symbol to a material, confirmation is requested to insert it as an active component or again only as a graphic.
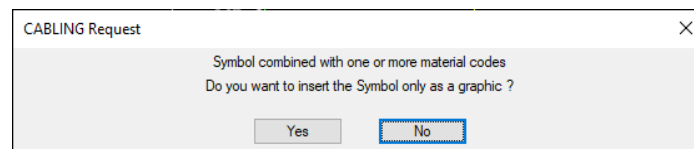
If you have decided to insert it as an active component, the standard window for inserting Components will open, filtered only for the associated materials.
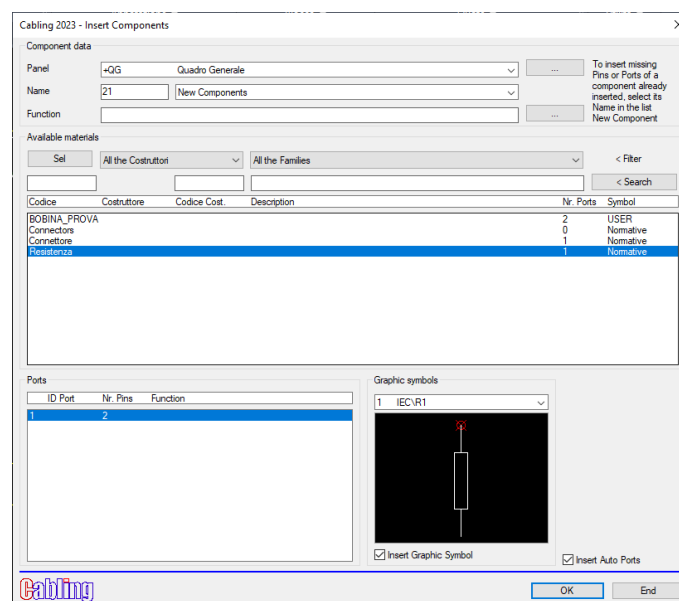
3.9 INSERT USAGES ASSOCIATED TO THE GROUPS

In CABLING 2023 the contextual menu on the pins of a Group has a new option: 'Insert Component as Usage'.
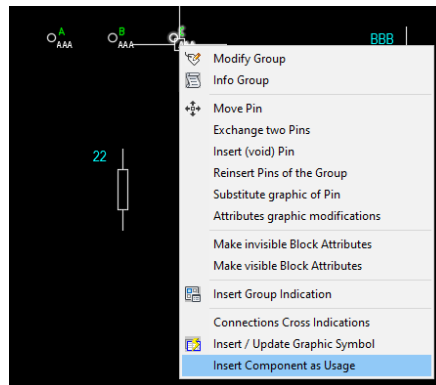

This new option opens the Component insertion dialog box where you can choose the Component and enter the name and function.
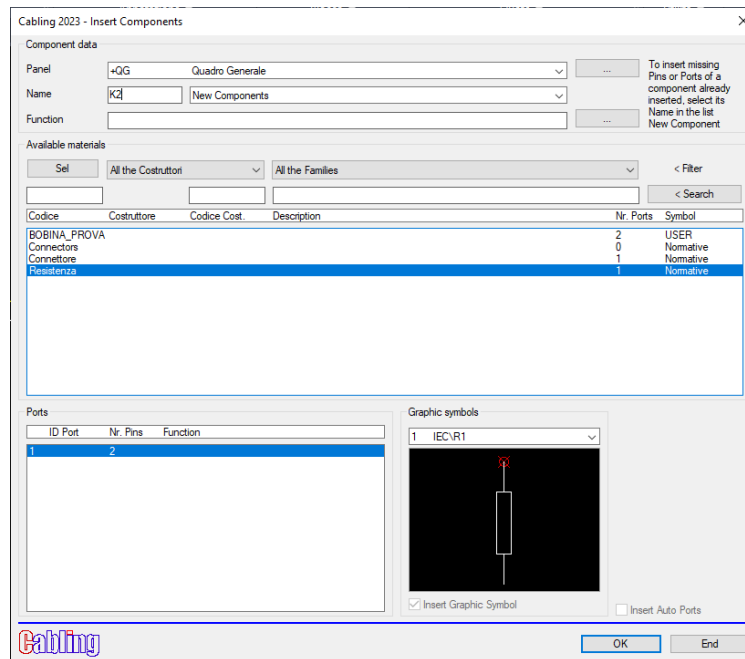

The next dialog box allows you to combine the Pins of the Component with the Pins of the Group. It is not allowed to insert complex components with multiple Ports.

More components can be combined with the same Group, for example two relais. After pressing OK CABLING asks for the insertion point of the graphic symbol that is associated with the Group Pins.
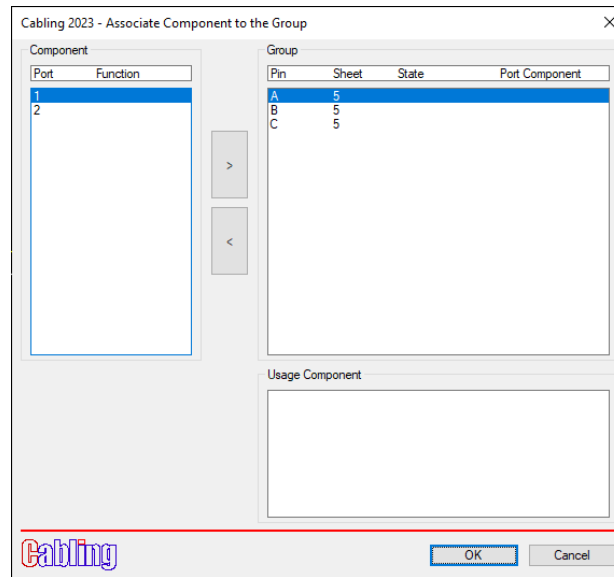
If you use the right button on a Pin with a Component associated, the following question is asked:
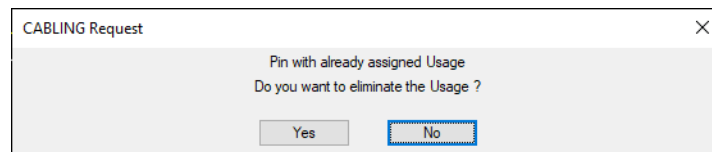
If so, the Usage is deleted and the graphic symbol of the component deleted.

3.10 IMPORT GROUPS AND IMPORT CONNECTIONS

CABLING 2023 has simplified the two windows of 'Import Groups' and 'Import Connections' with the 'Additional commands' drop-down list that contains the commands previously delegated to 3 buttons and the 'Re-scan of the current MultiSheet'. Furthermore, in the 'Import Connections' window the 'Insert Pin (void)' option has been added which allows you to insert this additional Pin for the Connectors if it had not been inserted in 'Import Groups': the dialog box is reopened after the insertion thus avoiding relaunching the command.
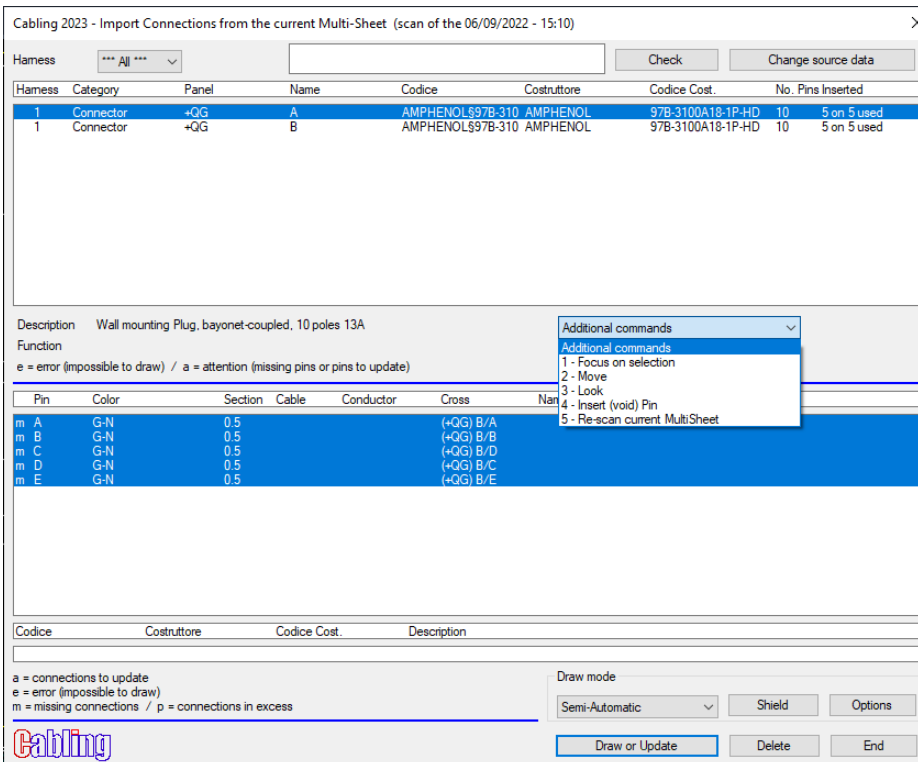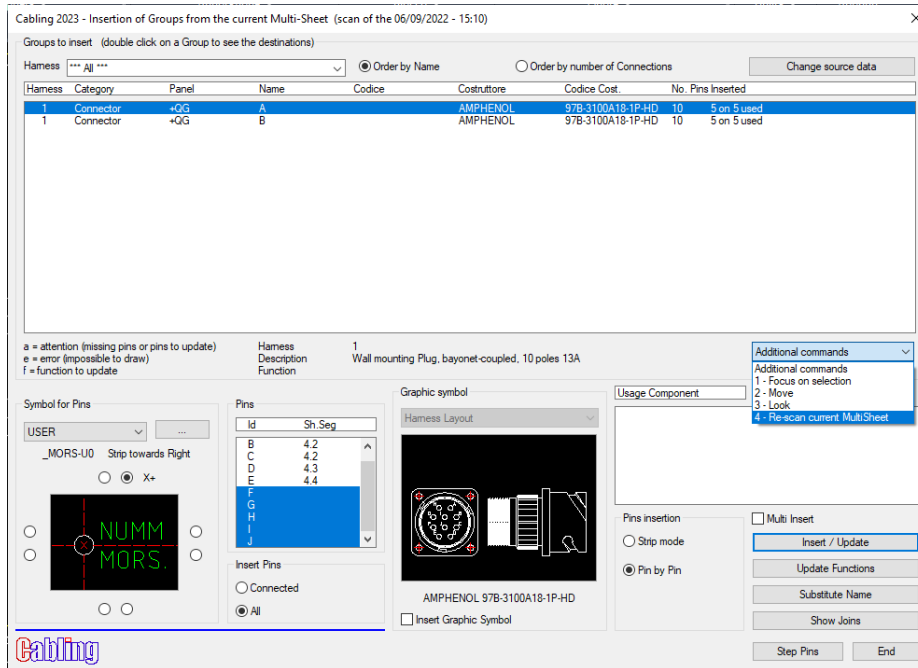
In the 'Import Groups' window, by double clicking on one of the groups, you can see its destinations and filter the list of Groups based on them (Filter button).
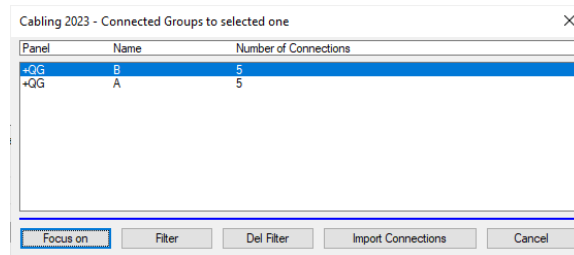
At the bottom of the window a text is now added to remind you that the filter on the Group is active.
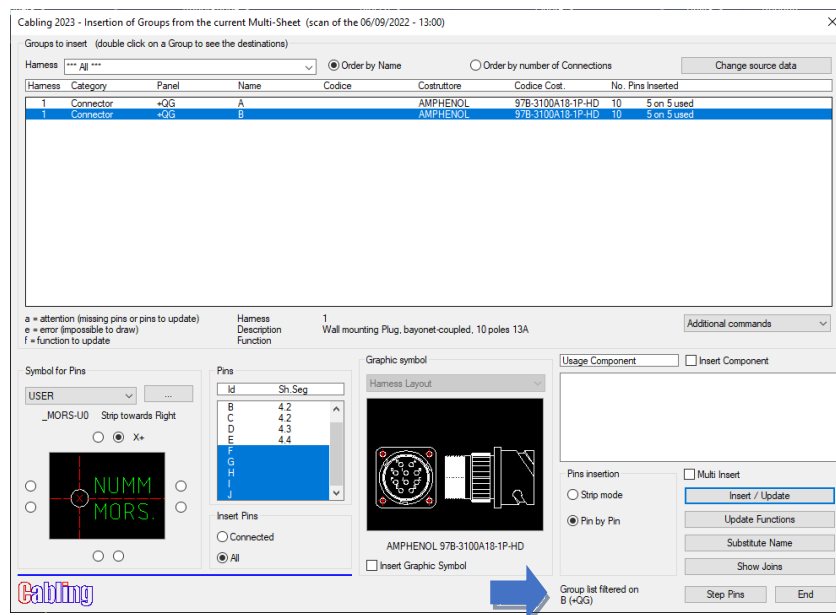
4   JOB ORDERS MANAGEMENT AND MASTER TITLE BLOCKS

4.1 SEARCH MULTI-SHEET IN JOB ORDERS MANAGEMENT

With the extensive use of CABLING over the years it is possible that the number of projects becomes extremely high and the search for one of them is not always immediate. To overcome this problem, in this version of CABLING the search for multi-sheets has been enhanced.

Until now, search for a multi-sheet was done with two functions in the Job Orders Management window: 'Last saved Multi-sheets' and 'Utility → Search Multi-sheet'. Now there is a single 'Search Multi-sheet' button which, if pressed, opens the following request:
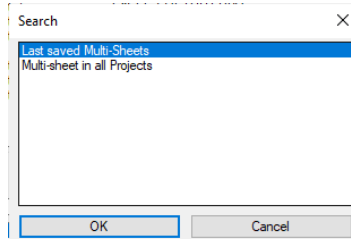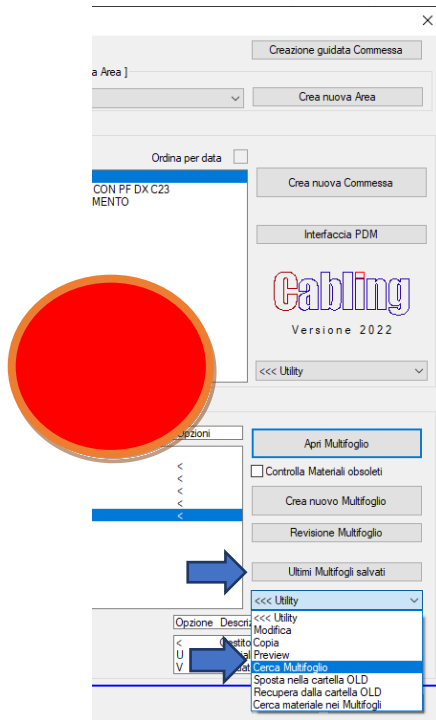
The first option is the one already present in previous versions, the second is new and includes the previous 'Search Multi-sheet' function, which disappears from the Utilities. A single button for the Multi-sheet search.
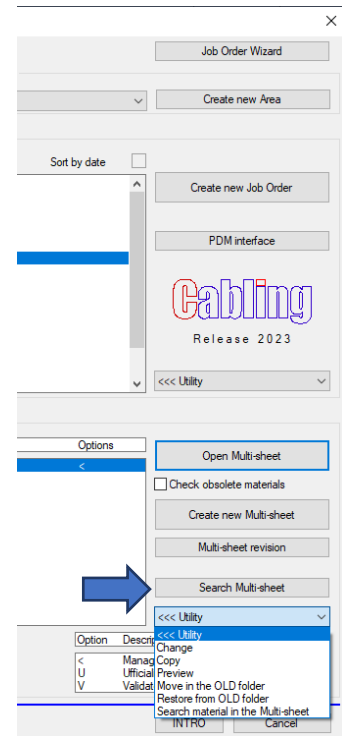
The new window contains all the multi-sheets found which can be filtered by Area, by Customer, by job order (and all the job orders starting with), by a specific content found in the description of the job orders and by Multi-sheet (and all the multisheets starting with) or a combination of the above filters.

The description of the selected multi-sheet appears in the lower part of the window (it is not possible to filter by multisheet description) and the quantity of multi-sheetS found, which are reduced using the upper filters.

As in the previous multi-sheet search commands, choosing a multi-sheet and using the OK button does not open the multi-sheet but focuses on the dialog box the multi-sheet and its area and job order. Pressing 'Open multi-sheet' the searched multi-sheet will be opened.
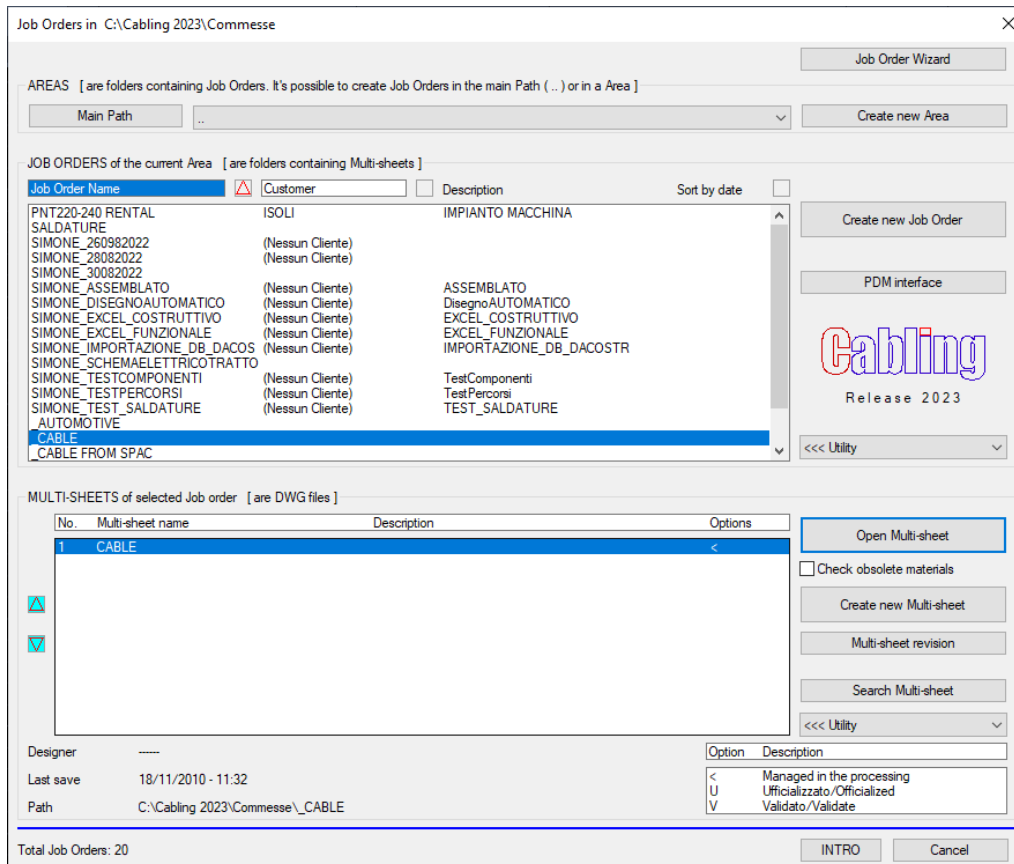
4.2 CONFIGURATION WINDOW

In CABLING 2023 the first window that is automatically opened after the creation of a new multi-sheet is the CONFIGURATION window: it has been simplified in the part of choosing the master title block with only the button for choosing the Master title block and choosing whether to insert it on the sheet 0 or on the current sheet (if different from 0).
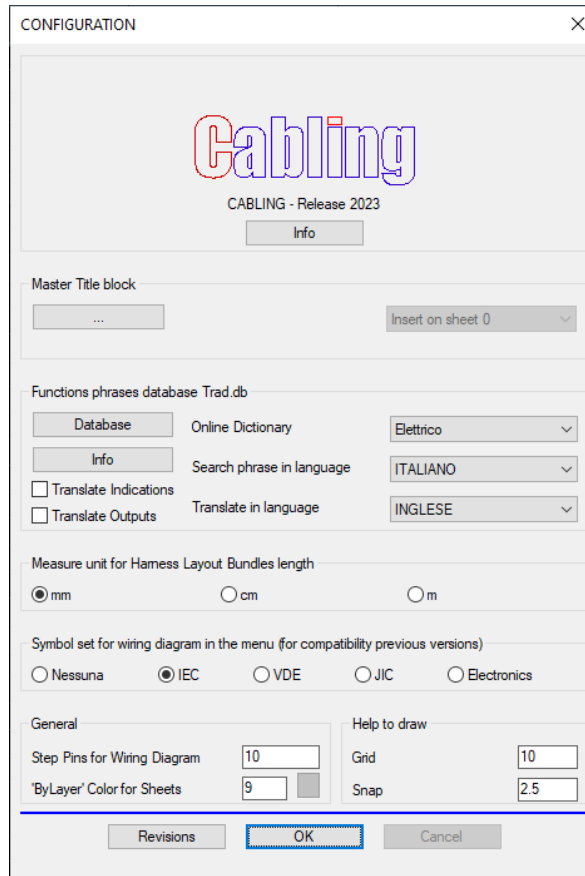
After inserting the Master title block, if it is not yet configured, the title block settings window will automatically open, which we will discuss at length in the next chapter. The goal was to maintain the same way of inserting the title block, simplify it and create a new command dedicated to title blocks that allows you to fully manage this fundamental element of your projects.

4.3 MASTER TITLE BLOCK WINDOW

In CABLING 2023 the new title block management window is divided into 5 sections:
- Master Title block
- Match data
- Set dimensions
- Sheet numbers
- Revision Block

The first Master title block section can have two appearances depending the title block is present.
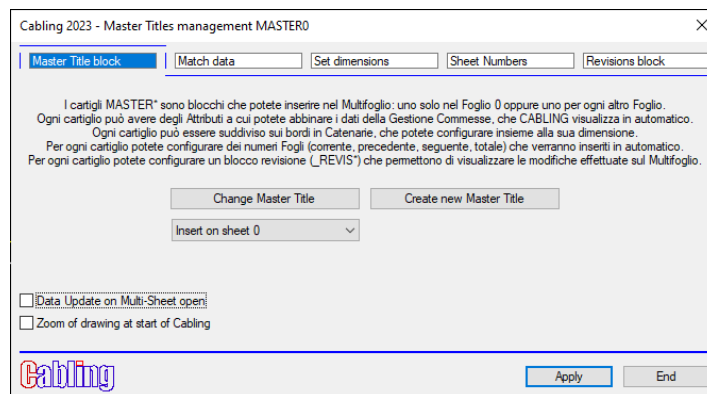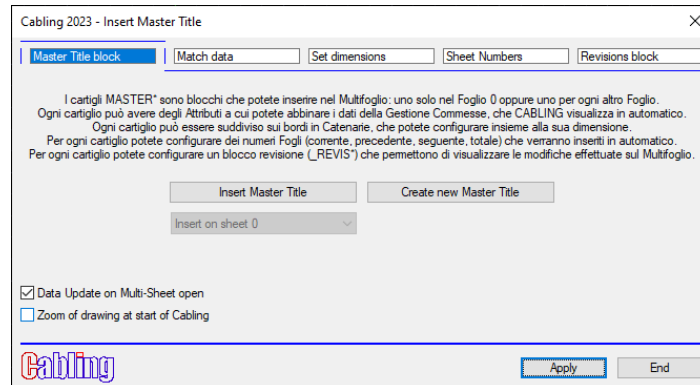
Match data

This window allows you to match the Job Order Management data with any attributes of the master title block. Compared to the previous version present in the SETTING command, the values associated with the individual fields are now displayed. With 'Associate' and 'Remove' you can associate the values of the fields to the Attribute Tags of the block, with 'Edit Job Order/Multi-sheet data' you can edit the values of the Job Order/Multi-sheet and with 'Apply' the associations will be saved and the title block inserted will be updated.

Set dimensions

This window allows you to set the dimensions of the Master title block with respect to its eventual segments. In the previous version, the window was already present in the CONFIGURATION command.

Sheet Numbers

With reference to the chosen master title block, this window allows you to define which sheet numbers to display, their position and their text height. However, this configuration remains present in the Sheets → Number Sheets menu.

Revisions Block

This window allows you to define which _REVIS * block to insert in the chosen master title block and its insertion point. However, this configuration remains present in the Sheets → Revisions menu.

4.4 CHANGE MEASURE UNIT OF BUNDLES

It may happen to create an harness layout with an incorrect unit of measure, for example using millimeters as much as centimeters were desired, using the settings in SHEETS → CONFIGURATION. If you want to change the unit of measure, until now it was necessary to edit the individual Bundles, now you can use the utility CABLING Harness Layout → Harness Layout Utility → Change Bundles Measure unit.
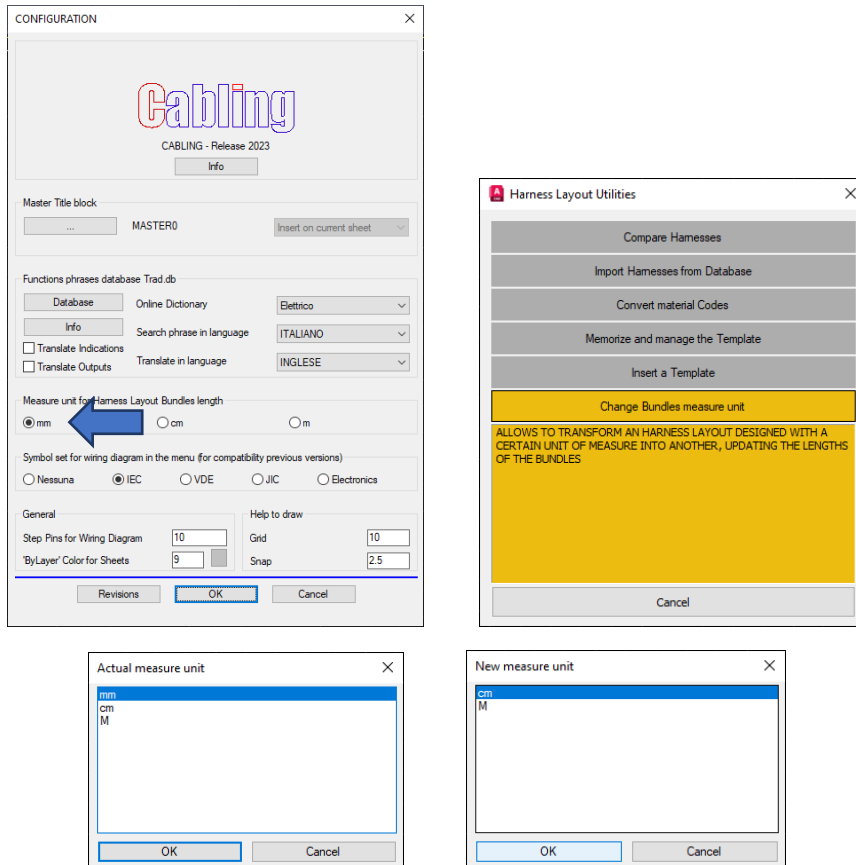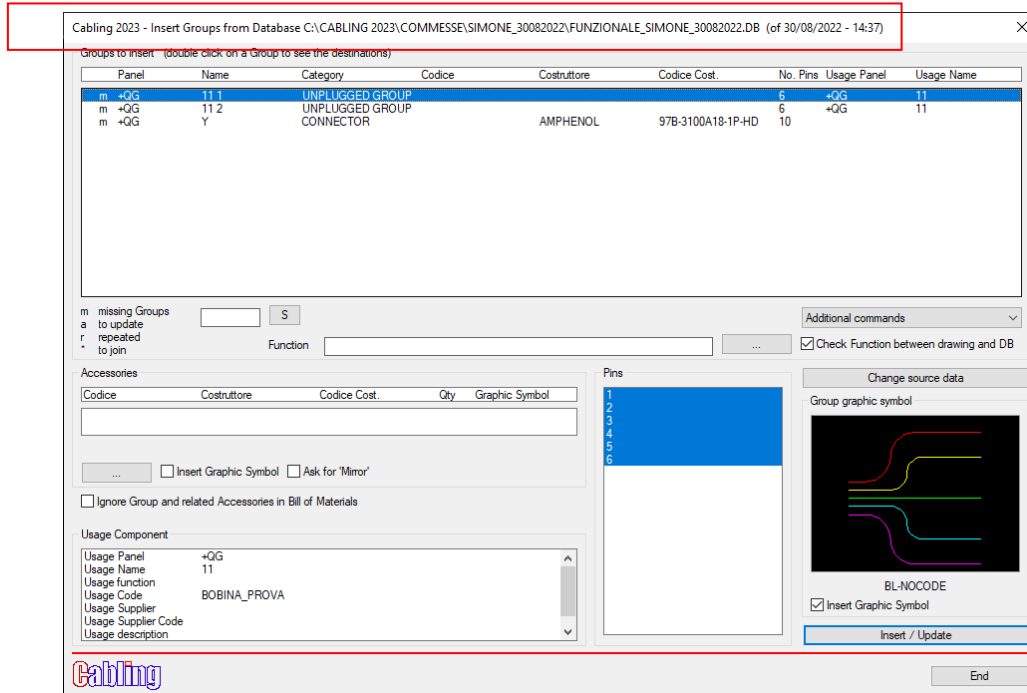

The tool converts the unit of measure of the Bundles and returns the information of the change.
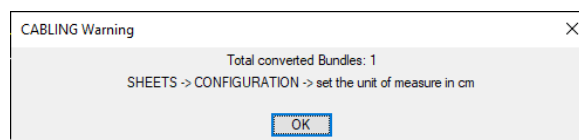
5 GENERAL

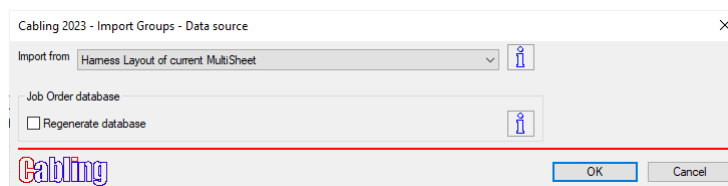## 5.1 IMPORT GROUPS AND IMPORT CONNECTIONS

CABLING 2023 has added the date of the import database or of the last scan to the top of the dialog boxes of Import Groups and Import Connections, both in the harness layout and in the wiring diagram.

This allows greater control of the dates of the databases and scans in the event of changes which are not followed by a new generation of the databases or a new scan of the harness layouts or wiring diagram. Finally, in the additional commands of the 'Import Groups' and 'Import Connections' windows, the item 'Rescan current MultiSheet' has been added, which allows you to re-scan the harness layouts of the current Multi-sheet if they have been modified / corrected during the use of these commands.
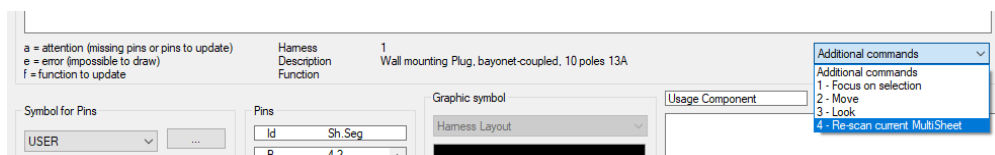
Remember that when these commands are started for the first time, the window below opens: if you choose to use the data from the current Multi-sheet, the scan is performed anyway and you can check it from the date that will appear at the top of the next window. For the other import modes it will be necessary to regenerate the databases or re-import the files outside of these commands.

5.2 IMPORT GROUPS AND CONNECTIONS FROM IMPORT CONNECTIONS FILE

To facilitate the use of CABLING 4D, the 'Import Groups' and 'Import Connections' commands in the harness layout and wiring diagram have new messages.

If the file contains the CODE_P and/or CODE_A fields, which represent the material code of the Source and Destination Group, and the 'Source and Destination Groups Part No.' flag is not activated, the following question is asked:


If the CODE field is present in the file, which represent the material code of the Connection, and the 'Connections Part No.' flag is not activated, the following question is asked:
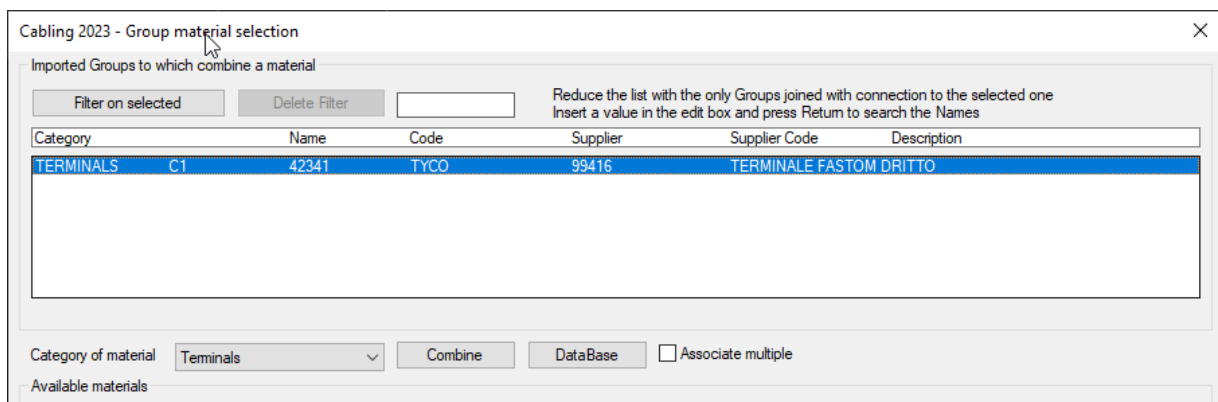
In addition, in the window for assigning materials to imported groups, the 'Combine multiple' checkbox has been added, valid for all categories of materials with the exception of Connectors. With the box enabled, a subsequent window opens with the choice of the Names to match the chosen material or the 'Unplugged Group' / 'Splice' category.
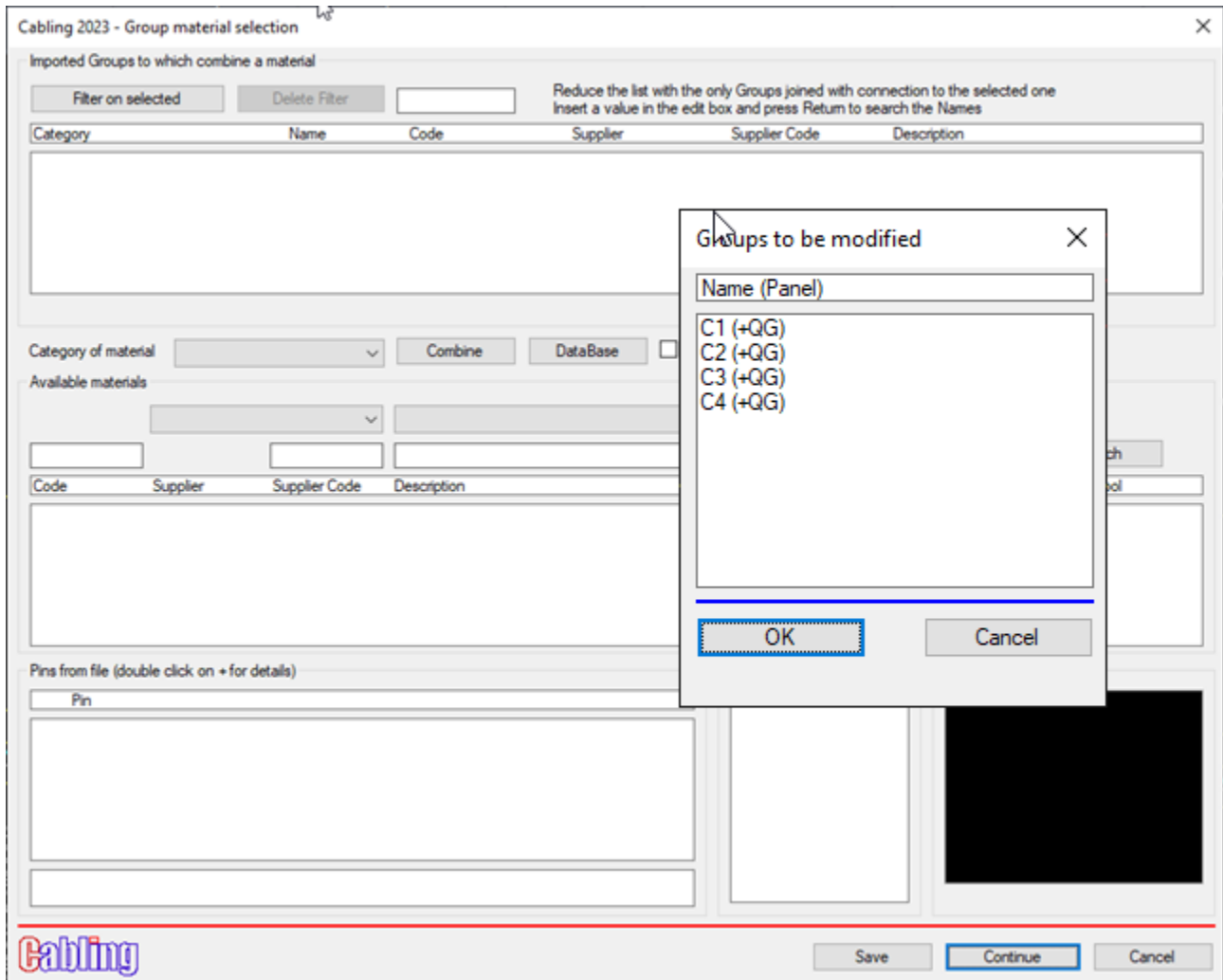
Pressing OK the selected Names are updated.