### DISTRIBUTION PANEL DESIGN SOFTWARE

# XL PRO<sup>3</sup> USER MANUAL

D legrand





**PRODUCTS AND SYSTEMS** FOR ELECTRICAL AND DIGITAL BUILDING INFRASTRUCTURES

# CONTENTS

INST	ALLATION AND START-UP	1
Α	Installation	. 1
	1. Hardware and software requirements	
	2. Installation	
_	3. Unlocking	
B	Start-up	. 1
С	First use	. 1
THE	XL PRO <sup>3</sup> INTERFACE	2
Α	Introduction	. 2
В	Tools for customising the interface	
	1. Selecting the software version	
	2. Display	
	3. Help menu	
С	Start button	. 4
D	Quick Access toolbar	. 5
Е	Ribbon bars	. 6
F	Palettes	10
	1. Study properties palette	
	2. Current panel properties palette	11
G	Work area	12
Н	Module bar	14
GEN	ERAL TAB	5



PAR	TS LIST MODULE	18
Α	Introduction	18
В	Selecting products 1. Characteristics selection windows 2. Examples of selecting products	19
С	1. Modifying the quantity	23
	<ol> <li>Modifying the characteristics and options of a device</li> <li>Deletion</li> </ol>	
D	Selecting special products 1. Selecting terminals	
	<ul> <li>2. Selecting supply inverters (depending on the XL PRO version)</li></ul>	
ARR	ANGEMENT MODULE	
	ANGEMENT MODULE	30
	ANGEMENT MODULE Introduction 1. Arrangement tab 2. Circuits tab 3. Representation of products	30 
A	ANGEMENT MODULE Introduction 1. Arrangement tab 2. Circuits tab 3. Representation of products 4. Representation of circuits	30 
A	ANGEMENT MODULE Introduction 1. Arrangement tab 2. Circuits tab 3. Representation of products 4. Representation of circuits	30 31 31 32 33 33

# CONTENTS (continued)

CIRCUIT DIAGRAM MODULE	
A Introduction	
<b>B</b> Drawing your own circuit diagram	
C Popup menus  1. Symbols popup menu  2. Columns popup menu  3. Pages popup menu  4. Mini-title block popup menu  5. Title block popup menu	
<ul> <li><b>D</b> Tabs in the ribbon bar</li> <li>1. Display tab</li> <li>2. Text tab</li> <li>3. Drawing/Wiring tab</li> </ul>	
ENCLOSURES MODULE	
A Introduction	
<ul> <li>B Selecting the enclosure</li> <li>1. Reserve</li> <li>2. Joining</li> <li>3. Enclosures menu</li> </ul>	
<ul> <li>PREVIEW MODULE</li> <li>1. Tabs at the bottom of the screen</li> <li>2. Popup menus</li> <li>3. Preview tab</li> <li>4. Text Mode tab</li> <li>5. Industrial Cabinets tab (present depending on XL PRO</li> <li>6. Drawing tab</li> <li>7. Thermal Management tab (present depending on XL PRO</li> </ul>	

DIST	RIBUTION.	67
Α	Principle	67
В		
	1. 4-pole distribution up to 63 A	
	2. Single phase distribution up to 63 A	
	3. Vertical distribution	
С	4. Horizontal distribution	
C	Power distribution 1. Busbars	
	2. Modifying busbars	
	3. Optimised busbars	81
D	Forms	
Е	Increased Safety (IS) (depending on the XL PRO version)	
	1. IS 223 – form 3	
	2. IS 233 – form 3	
	3. IS 333	
	ELS MODULE	90
	<b>1.</b> Interface	
	2. Label templates	91
	3. Labels tab in the ribbon bar	
SUM	MARY AND SUMMARY STUDY MODULES	93
Α	Summary	
	<b>1. Introduction</b> (depending on the XL PRO version)	
	2. Access to the E-catalogue	
В	Summary Study	
	1. Introduction (depending on the XL PRO version)	
	2. Access to the E-catalogue	101

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# CONTENTS (continued)

TREE MODULE	
1. Work area	
2. Popup menu	
3. Ribbon bar	
FOLDER MANAGEMENT MODULE	
A Basic mode	
1. Selecting printout types	
2. Choosing the cover page	
3. Print preview	
<b>4.</b> Printing	
B Ribbon bar	
C Advanced mode	
1. Folio management	
2. Managing cover pages	
3. Managing the printing folder	
COMMUNICATION MODULE	



This symbol accompanies tips and supplementary functions.

This symbol accompanies important elements.

**NOTE:** Functions with a grey background are available only in version 6300 of the program.

#### WARNING/DISCLAIMER

The XL PRO<sup>3</sup> software for electrical distribution must be used in accordance best practice and in particular the standards and regulations applicable to the installation concerned. Legrand will not be held responsible for any failure to comply with these basic principles. This software is protected by copyright law and international agreements. Any reproduction or distribution of the software, in whole or in part, by any means whatsoever, is strictly prohibited. Persons in contravention of these conditions will be guilty of infringement of copyright and will be liable to the penalties provided for by law. Copyright Legrand 2007



## INSTALLATION AND START-UP

### **A** Installation

- 1. Hardware and software requirements
- Intel Pentium IV or equivalent processor running Windows XP (Service Pack 2), Windows Vista, Windows 7 or Windows 8
- Adobe Reader X (can be download free of charge from: http://www.adobe.com/fr/products/reader.html)
- 1 GB of RAM recommended

#### 2. Installation

- Close all open applications
- Insert the XL PRO<sup>3</sup> CD-ROM or download the software from the www.legrand.fr website
- Follow the instructions in the installation program which starts automatically

#### 3. Unlocking

This software is protected. You will be given your personal activation key by your Legrand contacts.

You can however use it immediately 30 times without the key to start creating your studies with XL PRO<sup>3</sup>. After that the software will lock and you will need your key to continue working with XL PRO<sup>3</sup>.

### **B** Start-up

#### To start XL PRO<sup>3</sup>:

0R

Double-click on the icon on the desktop



- Select XL PRO<sup>3</sup> in the menu: Start > Programs > Legrand > XL PRO<sup>3</sup>
- The software starts up automatically

### **C** First use

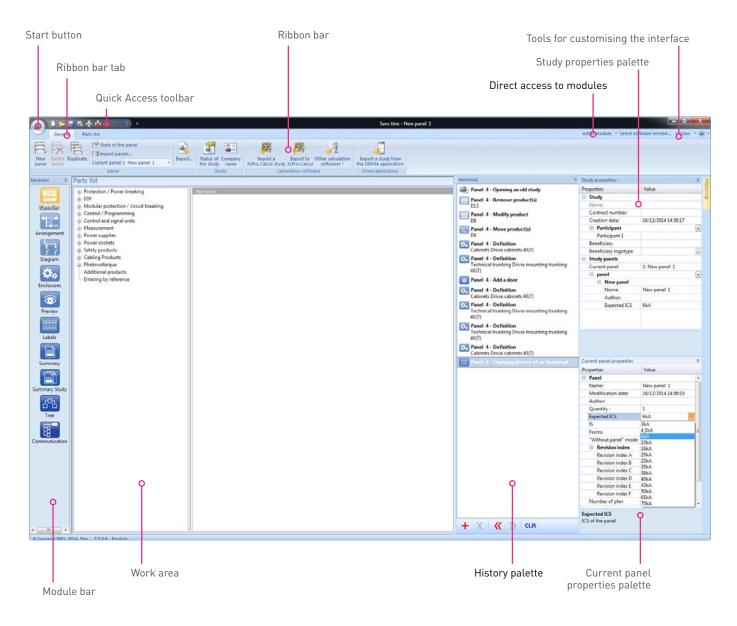
The first time you launch the program, you are requested to input your email and company name. If you are already subscribed to our services, this information will enable the program to automatically complete the information in the **Company Name** window. Otherwise, you must enter your company's information.

Properties	Value
Corporate name	
Corporate name"	Rtech
Logotype selection	
Name*	Monribot
First name*	Caroline
Address*	3 avenue du Midi
Address 2	
Area code*	87000
City*	Limoges
Phone number	
Fax	
email address	
Website	
Activity	
Function	
In accordance with Article 34 of th you have a right to access, modify To do so, pales contact: LEGRANO LEGRANO	r, correct or delete
tequired Information	V 87045 LIPIORES

- This information can be modified at any time, either in the menu or in the General tab in the ribbon bar (see page 13), which both enable you to open the Company name dialogue box again.
- You can also customise your work interface by changing the colours and the language (see page 03).

## THE XL PRO<sup>3</sup> INTERFACE

### **A** Introduction





## **B** Tools for customising the interface

Active module - Select software version... - View - 🕢 -

#### 1. Selecting the software version

This menu enables you to select the language of your interface: English, French or other

#### 2. Display

This menus gives you access to the Style window.

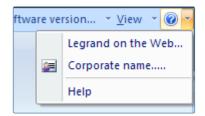


In this window you can choose the graphic style of the interface, whether or not the status bar is displayed, whether or not the main menu is displayed when the software starts up, and move the **Study properties** and **Current panel properties** palettes (see details of the palettes on pages 08-09).

#### 3. Help menu

- Clicking on gives you access to all the information about your version of the software.
- Clicking on the arrow to the right of this opens a window.

In this window you can:



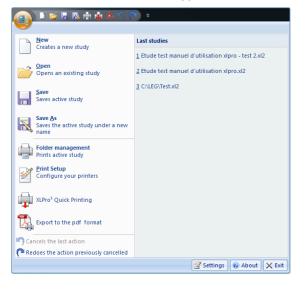
- Access the Legrand website directly
- Open the Corporate name menu to modify your details
- Download the user manuals in PDF format by clicking on **Help**

## THE XL PRO<sup>3</sup> INTERFACE

### **C** Start button

- Clicking on the **start button** opens the start menu in which you can access the following functions:
- New: starts a new study. If you have made changes to the current study, XL PRO<sup>3</sup> will suggest you save them.
- Open: opens an existing study. Once you have saved any changes made to the current study, you must select your file in the standard open window.
- Save: saves the current study. When you save the study for the first time, the standard Save As window opens, so that you can name the file (this name becomes the name of the study). The default location to which the file is saved is the My studies in XL PRO<sup>3</sup> folder, but you can choose another location.
- Save As: saves the current study under another file name and/or to another location.
- **Folder management:** opens the Folder management tab in the ribbon bar (see page 102).
- Print Setup: opens the standard window for selecting the printer and paper.
- Quick Printing: prints the image displayed on the screen, with no page layout formatting, from the various modules.
- Save to the pdf format: saves the image displayed on the screen in PDF format, with no page layout formatting, from the various modules.
- Undo the last action
- **Redo** a previously undone action
- Last studies: provides quick access to a recent study.
- Options: to define auto-save, update, folder and undo function parameters (see adjacent).
- About: this is used, among other things, to access information on the installed version of the XL PRO<sup>3</sup> software.

Exit: closes the software. If you have made changes to the current study, XL PRO<sup>3</sup> will suggest you save before closing.



#### The Options button opens a window::



- Configure auto-save: Tick the box [1] to activate auto-save and activate the menu [2]. Click the arrow to open the dropdown menu [3] and set the save frequency. Finally, confirm your choices by clicking the **OK** button.



### Each automatic backup deletes and replaces the previous one.

If you wish to return to a previous version of your study in progress, save the various stages **by renaming them each time**.



- Authorise (or not) searching and downloading of program updates.
- Search for available **updates**.

Settings	× .
Studies Load and Save Parameter setting Automatic update Folders Undo / Redo	Automatic backup activation Automatic backup all the 15 * minutes
	OK Anular Socious

- Choose the location for saving and exporting studies.

ettings		
Studies Load and Save Parameter setting Automatic update	My studies folder CtVLegrand_dev(Mes Etudes)	<u>a</u>
Folders	Exportations folder	
Undo / Redo	C:\kegrand_dev\Wes Exportations\	<b>B</b>
		Annuler Appliquer

- Activate and configure the Undo/Redo functions.

Studies Load and Save Parameter setting Automatic update Folders Undo / Redo	Linabled     Maximum number of states 20     Save historical	4		
		ОК	Annuler	Applquer

### **D** Quick Access toolbar

Located to the right of the start button, this gives you instant access to all the functions you have chosen. To select them:

Select or deselect the functions listed in the dropdown menu:

F		10000
1	Pers	onnaliser la barre d'outils Accès rapide
	√	Nouvelle
	√	Ouvrir
	√	<u>Enregistrer</u>
	√	Enregistrer <u>S</u> ous
	√	Traitement de dossier
	√	Impression Rapide XLPro <sup>3</sup>
	√	Exporter au format PDF
	√	Annule la dernière action
	√	Rétablit l'action précédemment annulée
	0	Afficher sous le ruban

Or right-click on one of the icons in the ribbon bars (see page 05) then on Add to the quick access toolbar.

## THE XL PRO<sup>3</sup> INTERFACE

### E Ribbon bars

These are horizontal toolbars in which the contents are divided into tabs. Each tab corresponds to a family of functions/actions. Apart from the **General** tab, the tabs available in the interface's ribbon bar vary according to which module you are in.

General tab (accessible from all modules) - see page 13



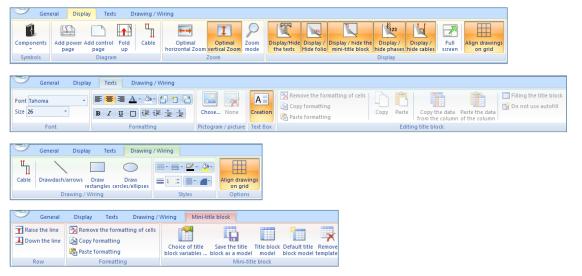
#### Parts list module tab - see page 16

	Gene	ral Par	ts list
		,U,U,U,III,	Ì
Display standar		Unfold auto list of fa	
	0	ptions	

#### Arrangement module tabs - see page 29



#### Circuit diagram module tabs - see page 45



#### **BACK TO CONTENTS**



#### Enclosures module tab - see page 48

General	Enclosures
Settings	
Preferences	

#### Preview module tabs - see page 58

centring mode * on the scene       mode       *       Zoom       Idmensioning       the ruler       the side view the texts       screen       *         Mode       Zoom       Zoom       Draw       Draw       Draw       Draw       Draw       Screen       *       Draw       Draw       Screen       *       Draw       Screen       *       Draw       Screen       *       Draw       Draw       Text mode       Draw       Draw       Draw       Text mode       Draw       Draw       Text mode       Draw       Screen       *       Oce       Screen       *       Screen       Screen       *       Screen	General Preview	manual mode	Text mode Drawing	g Thermal manage	ement ID	S_CABLES		
Horizontal       Formula         Move the origin of the mark       Formula         Yertical       State         Selection/modification/displacement       Formula         Selection/modification/displacement       Drawing         Temperature (* O       Adjustment factor         Calculating       Text mode       Drawing         Temperature (* O       Adjustment factor         Calculating       Calculating       Calculating         Feers in humidity rate       Gorge-Boys       Calculating         Operation       Rated load       Formula management       Solutions	centring mode <b>*</b> on the scene		y Optimal Zoom horizontal Zo	om vertical Zoom	isplay/hide the	Display/Hide Disp the ruler the	side view the text	ide Full Preferences. s screen
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	General Preview		ble Type U1000 R02 V	• New				

$\smile$	General	Preview	Text mode	Drawing	Cables			
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## THEXL PRO<sup>3</sup> INTERFACE

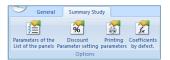
#### Labels module tab - see page 90

#### Preview Models General (140B) 🕀 🤉 🕈 **bese** D2.1 X Abcd Abcd Abcd D2.1 AaBbCc AaBbCcDdEe Strip labels labels Reset Automatic Optimal Unzoom Zoom-in Meter Zoom Text Title Export to Logicab2 A4 landscap A4 Portrait Tools label n Option General Preview Models Stirp 13 modules on two lines Bulk Label Product Single cell (Free compositi... Single cell (Variable marking) Single cell (WMF pictogram) Single cell (WMF pictogram) Single cell (diagram pictogram) Strip label Product label D2.1 4 4 Thumbnails from I toRD D2.1 Abcd Abcd Documents model Strip mode Labels m

#### Summary module tab - see page 93



#### Summary Study module tab - see page 98

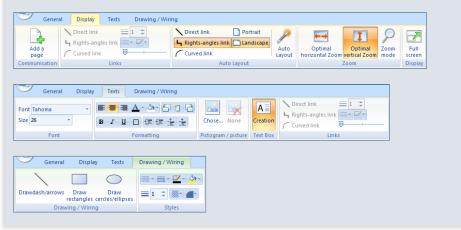


#### Tree module tabs - see page 102

General Displa	ay Texts Drawing / Wiring		
	Links	Curved link Landscape Curved link Auto Layout	Optimal horizontal Zoom Zoom
General Display	y Texts Drawing / Wiring		
Font Tahoma   Size 26   Font	B I ∐ □ ∉ ∉ ≟ ≟ Formatting	Chose None Creation Creating links Curved lin	gles link
General Displa Drawdash/arrows Draw rectangles Drawing / Wiri	Draw cercles/ellipses		



#### New Folder Management start menu tab - see page 113



## THE XL PRO<sup>3</sup> INTERFACE



#### 1. Study properties palette

Study properties :		ц.
Properties	Value	
🗆 Study		
Name:		
Contract number:		
Creation date:	16/12/2014 16:14:03	
Participant		+
Participant 1		
Beneficiary		
Beneficiary logotype		
Study panels		
Current panel	1: New panel 1	
panel		+
New panel		
Name:	New panel 1	
Author:		
Expected ICS	6kA	

The selection of the ICS (Isc) is important as it determines the choice of protection devices and helps calculate the number of busbar supports, and whether or not to incorporate a door. Select the prospective Isc (Expected ICS) of the panel in the dropdown menu which appears by clicking on this category.



The 🖪 icons enable you to automatically hide the **Study properties** and **Current panel properties** windows which appear in the form of vertical tabs. Click on these tabs to make them reappear. Click on the work area to close them.

- The Study properties window is displayed automatically on the right-hand side of your work area, enabling you to enter information about the study and the panels it contains:
- The study name will be allocated when you first save the study.
- You can perform the following for the study:
  - Allocate a Contract number
  - Choose the Creation date
  - Specify the various **Participants**. You can add more participants by clicking on 🛨
  - Specify the Beneficiary
  - Import the Beneficiary logo by clicking on ...
- In the Study panels part you can add New panels by
  - clicking on and perform the following for each panel: Choose a Name
  - Specify the Author
  - Specify the **Expected ICS**

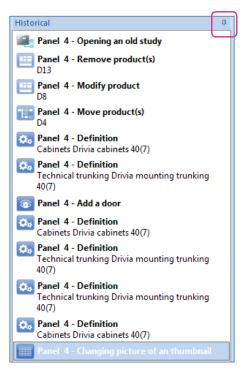


#### 2. Current panel properties palette

		-	
Current panel properties		T	<b>ņ</b>
Properties	Value	C	
Panel			*
Name:	New panel 1		
Modification date:	16/12/2014 16:14:04		
Author:			
Quantity :	1		
Expected ICS	6kA	*	
IS	111		
Forms	1		Ε
"Without panel" mode	No		
Revision index			
Revision index A			
Revision index B			
Revision index C			
Revision index D			
Revision index E			
Revision index F			
Number of plan			÷
Expected ICS ICS of the panel			

- The Current panel properties window is displayed automatically on the right-hand side of your work area, enabling you to enter information about the current panel:
- The Panel name
- Its Modification date
- The name of its Author
- The Quantity
- Its Expected ICS (presumed Isc). This information is important and you will be asked for it when creating all new panels. The Expected ICS dropdown menu will open automatically.
- Its Revision indexes
- A Number of plan
- tool see tip on page 08
- Depending on the version of XL PRO you are using, you will be able to create tables without enclosure in Without enclosure mode.

#### 3. History palette



- This displays your actions in chronological order and enables you to take steps backward and undo them.
- This tool complements the icon present in the **Quick** Access menu bar, which en-ables you to undo your last action.

## THE XL PRO<sup>3</sup> INTERFACE

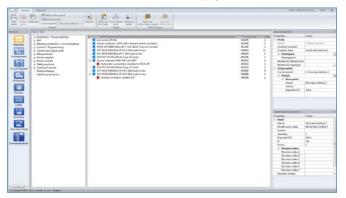


### **G** Work area

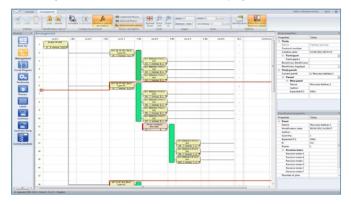
As with the ribbon bar (see page 05), the work area changes according to which module you are in.

To make your work area larger you can hide the **Study properties** and **Current panel properties** palettes (see tip on page 10)

#### Parts list module work area - see page 18



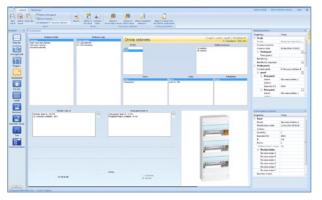
Arrangement module work area - see page 30



#### Circuit diagram module work area - see page 40



#### Enclosures module work area - see page 50



Preview module work area - see page 52

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#### Labels module work area - see page 90

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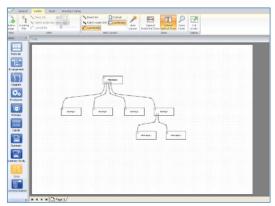
#### Summary module work area - see page 93

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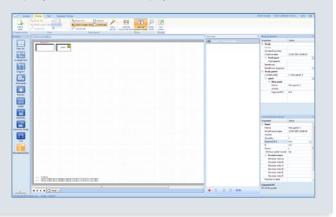
Summary Study module work area - see page 98

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#### Tree module work area - see page 102



Communication module workspace (depending on program version) - see page 113





## THE XL PRO<sup>3</sup> INTERFACE

### 🖪 Module bar

- This gives the logical progression of the steps, displayed in the form of icons, for creating your study and your panels.
- However, you can choose to go back to a previous step or jump one or more steps at any time, as necessary.
- Each module provides access to:
  - Specific functions which appear in the ribbon bar (see page 06)
  - A specific work area (see page 12)

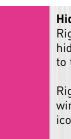
Dialogue boxes may also appear, making it easier for you to confirm the current step.

Each module will be described in detail in this document, in the order in which they appear.



#### Hide/show the module bar.

The 📮 icon enables you to automatically hide the module bar which appears in the form of a vertical tab. Click on this tab to make it reappear. Click on the work area to close it.



#### Hide/show module icons.

Right-clicking the icon of the module you wish to hide brings up a selection window. Click on **Hide** to temporarily hide the selected icon.

Right clicking in the module bar opens the same window. Click on **Show all modules** to show the icons of all the modules.











Enclosures













**PARTS LIST MODULE:** selection of the products used in the panel

ARRANGEMENT MODULE: electrical organisation of the panel

**CIRCUIT DIAGRAM MODULE:** panel circuit diagram

**ENCLOSURES MODULE:** choice of the enclosure to house the panel's products

**PREVIEW MODULE:** display and modification of the layout

LABELS MODULE: page layout of the panel's labels

**SUMMARY MODULE:** summary, costing and purchase order for the current panel

**SUMMARY STUDY MODULE:** grouping together and management of all the panels in the study

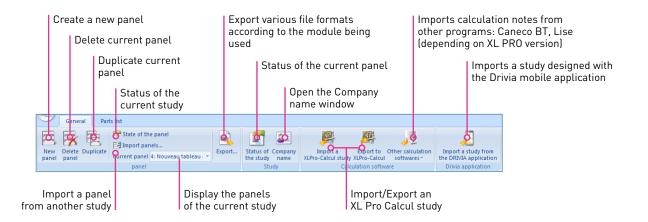
**TREE MODULE:** management of the tree structure between several panels

#### COMMUNICATION MODULE:

(depending on program version) Management of communication between more than one table, switches, etc.



This tab in the ribbon bar is accessible in all modules. It contains all the cross-module functions that you may need at any time, and which are therefore present at each step of your study.



- New: opens the Current panel properties window to create a new panel in the current study.
- **Delete:** deletes the current panel. This option is only active if the study includes more than one panel.
- **Duplicate current panel:** automatically creates a new panel identical to the current panel. The default name of this new panel is "copy of" followed by the name of the current panel. To rename it, select the **Current panel properties** option in the same menu.
- State of the panel: specifies whether the creation of the panel is Current [1] or has already been Carried out [2].

If you are working on your study, the "Current" choice is adequate. If the study is ended select "carried out". For more safety, you can use the button to the right to create a copy of your study.	
8 Status of the pannel: "Current" The study is in progress, as long as it is not carried out, all the features of XLPro are available.	×
State of the pannels "Carried out"	
The study was carried out, it is no longer possible to change completely. It is not possible to change endosure but products can be added in the available reserve. [2]	
Create a archivel backup copy [3]	



#### Select the status of your study: It is strongly recommended that you make a backup copy of your panel before selecting Carried out, by clicking on the button [3].



When you open a study that was created with an earlier version of the software, you will be asked whether your study is still current, in order to authorise its modification and offer updating of certain products

By default panels are always selected as being **Current**, which enables them to be modified and their parts lists to be updated automatically by XL PRO<sup>3</sup> according to available new products.

Select **Carried out** if you want to fix the main product characteristics and catalogue numbers in your panel, in particular the enclosure.

## GENERAL TAB

When the status of your study is **Carried out**, a new button appears: **Create a "Current" copy of your study** [4].

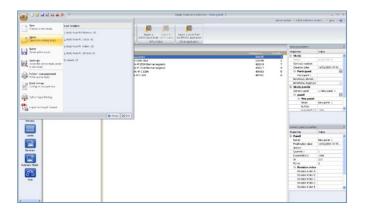
It enables you to save a copy of your study for which the status is **Current**, and therefore modifiable.





You must redefine the enclosure of your **Current copy** before regenerating the Preview.

Import panels: adds one or more panels from another study to the current study. The Open window is used to select the study containing the panel(s) to be imported.



The Import window is then used to select, in that study, the panel(s) to be imported. The panels you want to import must be transferred to the right-hand side of the window [1] using the buttons [2]. You can choose to import only the parts list of a panel by selecting the box [3].

Name:         Author:         Grea         Ame         Paralised         15/01         16/0         Paralised         15/01         16/0         Paralised         Dation B         Paralised         <	mport										
	Main Board Building B Building A Building C Building D Panel stage 1	Author:	15/01 15/01 15/01 15/01 15/01 15/01	16/0 16/0 16/0 16/0 16/0 16/0	») [2]	Name:		uthor:	Crea	Ame	
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The - button transfers all the panels, the - button transfers the selected panel only. If you make a mistake, the panels can be transferred back to the left-hand side using the - or - buttons. You can also transfer a panel from one side to the other by double-clicking on the relevant line.

Clicking on the rest = 1 button imports the selected panels, which are then added to the content of the current study.

**Current panel** gives direct access to all the panels in the current study. The current panel appears in the selection window.

#### Current panel 1: New panel 1

**Export:** exports the circuit diagram, the preview and the summaries in various file formats (see the modules concerned).



Status of the study: specifies whether the creation of the study is Current [1] or has already been Carried out [2]





When you open a study that was created with an earlier version of the software, you will be asked whether your study is still current, in order to authorise its modification and offer updating of certain products.

By default the study is always selected as being **Current**, which enables the software to automatically update the parts lists of the various panels in the study according to available new products.

Select **Carried out** if you want to fix the main product characteristics and catalogue numbers in your study, in particular the enclosures.



It is strongly recommended that you make a backup copy of your panel before selecting **Carried out**, by clicking on the button [3]. When the status of your panel is **Carried out**, a new button appears: **Create a Current copy of your study** [4].

you are working on your study, the "Current" choice is adequate. If the study is ended select "carried out", r more safety, you can use the button to the right to create a copy of your study.	
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Status of the study: "carried out"	
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It enables you to save a copy of your panel for which the status is **Current**, and therefore modifiable.



You must redefine the enclosure of your **Current copy** before regenerating the Preview.

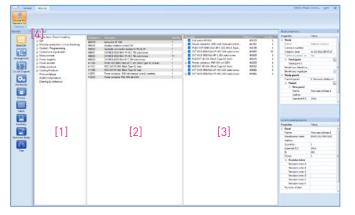
- **Company name:** to change your company's details.
- Import an XL PRO Calcul study: to import a study created with XL PRO Calcul.
- **Export to XL PRO Calcul:** to export a study created with XL PRO.

## PARTS LIST MODULE

The parts list module is used to add the products that make up the panel, by selecting their characteristics.

### **A** Introduction

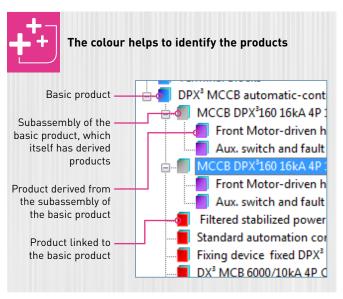
The **Parts list** module window has 3 panes.



- Pane [1] shows all the products which may be used when designing a distribution panel. They are classified by family and subfamily. To display the content of a family, click on the ⊞ sign to its left. To hide it, click on the ⊟ sign.
- Pane [2], or the Standard list, displays all the products in the panel as they are selected, in catalogue number order. It is shown by clicking on the corresponding button [4] in the Parts list tab in the ribbon bar.
- Pane [3] displays the same products arranged in the order in which they were entered, grouping the associated products under the main product. To display the secondary products, click on the I sign to the left of the main product. This list is described as active as it can be used to make modifications.

The standard list can be hidden by deselecting the corresponding option in the **Parts list** menu in the menu bar.

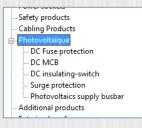
You can then work more easily in the active list (descriptions are not shortened).





If you select a photovoltaic product, only those products that are compatible with this family will then be accessible.

The 🗄 sign disappears for the other products:



Conversely, if you select other types of product, the photovoltaic family will not be available for your current panel:

Measurement	
• Power supplies	
• Power sockets	
Safety products	
Cabling Products	
Photovoltaïque	
Additional products	
Entering by reference	



### **B** Selecting products

#### 1. Characteristics selection windows

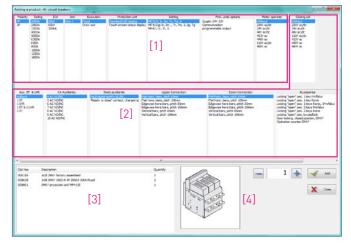
- Selecting a subfamily in the first pane will open a window for selecting the characteristics and options for this type of product and its accessories. This window is different for each subfamily. However the list of catalogue numbers corresponding to the characteristics and options selected is always shown in the bottom left-hand corner. The and buttons are used to adjust the quantity of products with identical characteristics and options that you want to add to the design of the panel.
- Click on Add to confirm, then on Close to change the product type.

#### 2. Examples of selecting products

#### A. SELECTING AN MCCB

- In the first pane of the Parts list window, open the Protection/Power breaking family. MCCBs are spread across several subfamilies: Air circuit breakers, Moulded case circuit breakers, Supply inverters corresponding respectively to the DMX<sup>3</sup> and DPX<sup>3</sup> ranges, mounted on their own or in supply inverters. Supply inverters are covered in greater detail on page 23.
- The method described here for an air circuit breaker also applies for moulded case circuit breakers, although the characteristics selection window is not totally identical.

#### Select the **Air circuit breakers** subfamily.



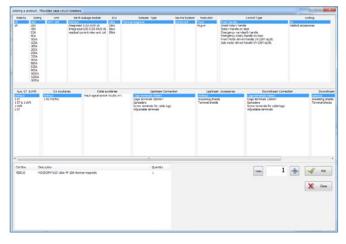
- The characteristics selection window is divided into several parts. The first columns [1] concern the circuit breaker itself.
- The next columns [2] concern the selection of the Control type, the Auxiliaries, the Connection method, the Accessories and, in certain cases, factory assembly.
- The summary [3] displays the Catalogue number of the main product and all the catalogue numbers of the associated products you have selected.
- The drawing area [4] shows a preview of the product being selected when this is necessary.

## PARTS LIST MODULE

- The various options must be selected in the order in which they appear (from left to right and top to bottom). You must therefore start by choosing the number of poles in the MCB, its rating, then the type of unit, the breaking capacity, type of release required and so on until you reach the accessories.
- The options given in each column vary according to the choices made in the preceding columns. They are an exact reflection of the Legrand offer.

#### > Selecting a main device for a 250 A panel

The first option at the top of each column is selected by default. The device shown in the list of catalogue numbers is a DPX<sup>3</sup> 160, 4P, 16A.



- In the Polarity column leave the option 4P [1]
- In the Rating column select 250 A [2]
- Select the **Unit: DPX<sup>3</sup> 250** in the corresponding column [3]. The catalogue number is updated and becomes **4 202 19** [4]
- In the next 6 columns leave the basic default options unchanged

Polarity	Rating	Unit	Earth leakage module	ICU	Release Type	Neutral location
4P 3P	16A 25A 63A 80A	DPX 3 250 DPX 250 DPX 630	Without Integrated LCD 0.03-3A/0-3 residual current relay and co	25kA 36kA il 50kA 70kA	Thermal-magnetic Electronic: Ir,Im,Tr,Tm	protected
[1]	200A 200A 250A 320A 400A 500A 630A 800A 1000A	[3]	[5]			
•				_		_
Aux. ST Without		CA Auxili Vithout	aries State Fault signal swit	auxiliaries		am Connection
1 ST 1 UVR		AC NO/NC			Spreaders Adjustable terminals Cage terminals 150n	
•						
	Descr	iption			Quantity	
Cat Nos			) 25kA 4P 250A thermal-magnet		1	

#### > Adding an earth leakage module

- To select an **Earth leakage module** click on **Integrated** in the appropriate column [5]
- The catalogue number is updated and becomes **4 202 29** in area [4]
- Click on Add to confirm, then on Close to change the product type.

#### **B. SELECTING MODULAR CIRCUIT BREAKERS**

- Open the Modular protection/circuit breaking family and select the Thermal magnetic MCBs subfamily.
- The polarity and rating characteristics are selected first.
- Parts list

  Protection / Power breaking
  EDF
  Modular protection / circuit breaking
  Modular Isol switch
  Residual current devices
  Fuse carriers
  Motor-driven MCBs
  Voltage surge protectors
  Control / Programming
  Control and signal units
  Measurement
  Devicement



- > Selecting an RCBO for a cluster of lighting circuits
- In the Polarity column select 4P [1]
- In the Rating column select 32 A [2]



The most frequently used ratings appear at the top of the list in ascending order. The least used ratings are at the bottom of the list.

- In the Type column select AC [3]



Polarity	Rating	Curve	ICU		Standards	Type	Sensitivity
1P +N Left 2P 3P #₽ 1P [1]	10A 16A 20A 25A 25A 25A 25A 25A 25A 125A 125A 14 1,6A 2,5A 3A	C B D	6000A/10kA 4500A/6kA 10000A/16kA 25kA 25kA 36kA 50kA	1EC 60896	[3]	Without A Hpi [4]	30mA 300mA S 300mA S 1AS Type ad
•							
Shunt &	Undervoltage rele	ase	Signaling contacts	Fault signal switch	Acces	sories	
Without ST 110 to 415	Wac		Without 1 ac	Without 1FS		ls 50mm² upstream ls 50mm² downstre	
ST 12 to 48V			2 ac		Sealable terminal		

- Leave the quantity at 1, then click on **Add** 

#### > Selecting phase + neutral MCBs for lighting circuits

- In the Rating column select 10 A [1]
- Leave all the other options at their default values

Polarity	Rating	Curve	ICU		Standards	Type	con
1 <del>P+N Left</del> 2P 3P 4P 1P	10A 20A 25A 32A 40A 0,5A 1A 2A 3A 4A 6A 8A	C B D	4500A/4,5kA 6000A/10kA 4500A/6kA 10000A/16kA	IEC 6089		Without	Screw/Screw Auto/Auto Auto/Screw
•							
Shunt &	Undervoltage relea	ise Sign	aling contacts	Fault signal switch	Acces	sories	
Without		With	out	Without	Sealable terminal s	shields	
ST 110 to 415 ST 12 to 48V a		1 ac 2 ac		1 FS			

- Leave the quantity at 3, then click on 🗹 🚾 Add

- > Selecting an RCBO for power socket circuits
- Select 1 4P, 40 A, AC, 30 mA RCBO, as shown below:

Modifying a pro	duct in the	fam	ily : Thermal ma	ignetic MCB's					
Polarity	Rating		Curve	ICU			Standards	Туре	Sensitivity
1P+NLeft 2P 3P # 1P	10A 16A 20A 25A 32A 50A 63A 80A 100A 125A 1A 1,6A 2,5A 3A 	× E	G B MA (threshold:5	6000A/10kA 10000A/16kA 25kA 36kA 50kA		IEC 60896		Without AC Hpi	300mA 300mA 300mA S 1AS Type ac
•							m		
Shunt & U	ndervoltage i	ele	ase Sign	aling contacts	Fault sign	nal switch	Accessor	ies	
Without ST 110 to 415V ST 12 to 48V ad			With 1 ac 2 ac	but	Without 1 FS		Aluminium terminals 5 Aluminium terminals 5 Sealable terminal shie	50mm² downstre	

- Leave the quantity at 1, then click on 🗹 🚾 Add
- > Selecting phase+neutral MCBs for power socket circuits
- In the **Rating** column select **16 A** [1]
- Leave all the other options at their default values

Modifying a p	roduct in the far	mily : Thermal	magnetic MCB's				
Polarity	Rating	Curve	ICU	I	Standards	Туре	con
1P+N Left	10A	С	4500A/4,5kA	IEC 6089	8/947-2	Without	Screw/Screw
2P	13A	в	6000A/10kA				Auto/Auto
3P 4P	16A 20A	D	4500A/6kA 10000A/16kA				Auto/Screw
1P	25A [1] 32A [1] 40A 0,5A 1A 2A 3A 4A 6A 8A		10000 (100				
•		-		_			-
Shunt &	Undervoltage rele	ease Si	gnaling contacts	Fault signal switch	Accesso	ries	
Without			thout	Without	Sealable terminal shi	elds	
ST 110 to 415		14		1 FS			
ST 12 to 48V	ac/dc	2 8	c				

- Adjust the quantity to 5, click 🗹 🚾 Add, then on 🕱 🚥 Close
- All the products added are shown in the parts list together with their selected quantities.

RCBO MCCB DPX <sup>2</sup> 250 25kA 4P 250A thermal-magnetic	420229	1
— RCBO DX <sup>1</sup> 6000/10kA 4P C 32A 300mA Type AC	411208	1
— DNX <sup>4</sup> MCB 4500/4,5kA 1P+N C 10A	406773	3
— RCBO DX <sup>1</sup> 6000/10kA 4P C 40A 30mA Type AC	411190	1
DNX <sup>4</sup> MCB 4500/4,5kA 1P+N C 16A	406774	5
MCCB DPX <sup>4</sup> 250 25kA 4P 250A thermal-magnetic	420219	1
The second secon	420219	*



## PARTS LIST MODULE

## 3. Selecting control and programming devices

The products in the Control/Programming family are used to control and automate the functions of the installation.

#### A. SELECTING A TIMER

- In the Control/Programming family select Time-lag switches
- Leave all the default options unchanged

Adding a produ	ict : Time-lag switches	
Polarity	Rating	Voltage
1P	16A Standard	230V
	16A Multifunction	

- Click on 🗹 🐖 Add, then on 🗶 🚾 Close

#### **B.SELECTING CONTACTORS**

To automate 2 circuits for external lighting:

- In the Control/Programming family select Contactors

Product	Polarity	Rating	Type
Power contactor	2NO	25A	Without manual switch
Power contactor, with manual control	3NO 4NO 2NC 4NC 2NC+2NO NO+NC	40A 63A	With manual switch Noiseless

- Leave all the default options unchanged
- Increase the quantity to 2 then click on **Add**, and then on **X** ••• **Close**

- C. SELECTING A LIGHT SENSITIVE SWITCH
  - In the Control/Programming family select Lightsensitive switches
  - Leave all the default options unchanged

Adding a product	Light-sensitive switches	
	Туре	1
Standard		
Preprogrammed Programmable		

- Click on 🗹 🐖 Add, then on 🗶 🚥 Close

#### D. SELECTING A DIGITAL TIME SWITCH

- In the **Control/Programming** family select **Programming/time switches**
- In the **Period** column select **Multiple** [1]
- In the No. of connections column select 2 connections NO/NC [2]

Adding a product : Programmable time switchs

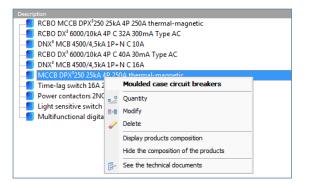
Period	Туре	No connections	Rating	Control	
7 day program 24 h program Yearly	Digital	1 output NO/NC 2 connectionsNO/NC	16A	230V	11
Multiple Outdoor illuminations		[2]			
[1]					

- Leave the other default options unchanged
- Click on 🗹 🐖 Add, then on 🗶 🚥 Close



### **C** Modifications

- The active list is used to make corrections to the parts list. If the names of the products are truncated, you can hide the standard list to free up more space on the screen (see page 16).
- Right-click on the product to be modified, then select the required operation from the popup menu.



#### **1. Modifying the quantity**

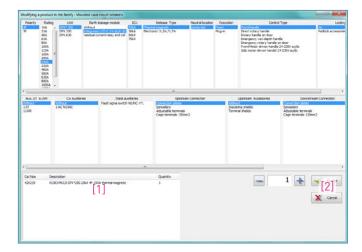
■ To modify the quantity of identical products, select **Quantity**, then use the ⊟ and buttons to set the new quantity required. The cursor or keyboard (direction arrows) can also be used.

Modifying the quantity	y .
	1 🕂
Confirm	X Cancel

- Adding 2 additional MCBs for lighting circuits
  - DNX C 1P+N 10A MCB in the active list
  - Quantity in the popup menu
  - Change the quantity to **5**
  - Click on the **Confirm** button <del> </del>
- The new quantity immediately appears in the last column in the list. Modifying the quantity

## 2. Modifying the characteristics and options of a device

- To modify the characteristics and options of a device, select Modify in the popup menu. The modifications are made in a window identical to the Adding a product window.
- The list of catalogue numbers [1] **reflects** the changes made. The **Add** button *✓ ✓* is replaced by the **Confirm** button *✓ ✓* [2].





You can make as many modifications as you want, but, as is the case when adding a product, the subsequent columns may be reinitialised if the options that were previously chosen are no longer compatible with the modifications.

Check your data carefully before confirming.



The "Quantity" field can be used to adjust the number of products to be modified. Thus, if the parts list of your panel contains several identical products, it is possible to change only some of them by adjusting the quantity required before confirming the operation. By default, the quantity is set to the total number of products.



## PARTS LIST MODULE

- Adding an auxiliary to a DPX MCB To install an emergency breaking device for the entire panel, the main device must be equipped with a release.
  - Right-click on the line MCCB DPX<sup>3</sup>250 25kA 4P in the active list
  - Select **Modify** in the popup menu
  - In the Aux. ST & UVR column select 1 ST coil. Then in the Aux. ST no.1 column select 200-277 ac/dc
  - Click on the **Confirm** button 🛩 🚥
- If you return to the list of products in the Parts list module and click on the 
  to the left of the MCCB you can see that the release has been added.



#### 3. Deletion

- To delete one or more products, select **Delete** from the
  - popup menu. In the window which appears, adjust the number of products that you want to remove, then click on the **Delete** button.



<b>+++</b>

It is not possible to delete an associated product or an accessory directly as this operation would delete the main product. The latter forms a whole together with its associated products. The Modify option must be used to perform this type of operation.



Remember to configure **Automatic backup** or remember to save regularly (see page 03)



### **D** Selecting special products

#### 1. Selecting terminals

Select **Terminal units calculation** in the **Cabling Products** family.

etic Grey ter	andard terrenal units minal units 2 levels	Orcy standard terminal units Due terminal units	Corporber Earth terrinal units	Tip Lateral	6	
					10 15	
Description Territical Blocks		Quantity			1 💽	🚽 Add

The terminals will be calculated automatically when the enclosure is chosen.

## 2. Selecting supply inverters (depending on the XL PRO version)

XL PRO<sup>3</sup> can be used to create supply inverters with: - Air circuit breakers and switches

- Moulded case circuit breakers and switches

A supply inverter is added from the Parts list module, via the Protection/Power breaking family.

#### A. AIR SUPPLY INVERTERS

- > Step 1: Configuration of the supply inverter
- The first step is used to define the general characteristics of the supply inverter:
  - Required supply inverter **Configuration**: by default 2 devices
  - Type: Air
  - Operation: automatic, manual or remote controlled
  - Normal device/Protected device: the type of device for a normal circuit and for a protected circuit: circuit breaker or switch

	neten	Type	Coerate	n	Device 1	Device 1	UNC	Execution	Pactory Assent
ources + I coupling * cources, only I device cources, 2 doped devic	doued "Type II"	Mediation N croit the		Moulded :	ale Up-free switz'es	Moulded case broakers Moulded case try-free switches	DFX 250 DFX 250 DFX 630 DFX 630 DFX 1000	Page	Na
					*				_
Voltage supervision	Control voltage		ontrol voltage	Feetback	Emergency sto	Electronic control bea			
*8	2401 ac + 244 dc 3401 ac + 487 dc 2401 ac	704		With With a release	7es	ful spe			
c Nue Description DPX <sup>®</sup> MOX	n 3) automatic -controlle	1997-147							Quartity

- Additional characteristics are available for automatic operation.
  - **Voltage supervision**: by default this is measured on the normal circuit and the protected circuit in Ph/Ph



When you select Ph/N voltage supervision, you reduce the number of protection devices on the control circuit but the voltage displayed on the electronic control box is in Ph/N.

## PARTS LIST MODULE

- Control voltage
- Power of the protected supply
- Control voltage: by default 240 V~



Each characteristic that is selected adds products to the list of catalogue numbers.

- Various options are also possible, such as:
  - Emergency stop, by default deselected
  - **Feedback**: used to retrieve the status of the circuit breakers which make up the inverter

When all the options have been selected, click on the **Next** button.

- > Steps 2 and 3: "Normal" and "protected" devices
- These windows are used to select the characteristics of the devices themselves. The procedure is the same as for selecting an MCCB on its own, except that some options are forced according to the type of inverter defined in the previous step. To return to this selection, click on **Previous**.
- The list displays the catalogue number of the selected device and any associated auxiliaries and accessories, some of which are automatically required to control the inverter. To continue, click on Next.

Pdarity.	Rating	Unit	Earth leakage module	1CJ	Release Type	Neutral location	Execution	Control Type		1
P	25A 40A 63A 80A 300A 125A 260A	371	Struct og rande 0.03-34,0-36 granted 1.03-04,0-35 kduat comtref, reliey and coll duat comtref, reliey and coll	162A 258A 368A 301A	emul-magnetic	gestactid Pr	and Propert Minister	driver handla 24-200	V acida:	a Brobaba Ionie liodk treffskux liodi
-										
Aux. ST	LUNR	CA Audiorico	State a		Upstream	Connection	Upstream Acc	casorica	Downsteam	Connection
IST & LUN LUNR IST	R	CHOPE	Fault sgnal switz	NONC #*1	Cage transmis 120em Spreaders Extenders Extended front terminals		Insulating shelds Terminal shelds	Son	e terminals 150nm2 soders ended frant terminals utable terminals	
<u></u>					*					
Lat Nos	Description MCCE DRV	150 16kA IP 16A 1	went except						1	Lerthy
0.3961		r-driven handle MC	28 OKA 560MO08 DIN 1250 COB DINA	9 24 230 Vac - 3	64-230 Vide					
						×	Quer 2	retine 🔿	tine 🖌	htt

Pdarity	Rating	Unit	Earth leakage module	3CU	Release Type	Neutral location	Execution	Control Type	Le
P	25A 40A 63A 80A 300A 125A 266A		retor and 0.03-34,0-35 Sintegrated UCD 0.03-34,0-35 residuationment relay and coll	25kA 36kA	a managadik			tana atan bok	Bonie lock Profiskus lock
-									
Aux.ST I		CA Austa	ics State a Fault signal switch	unitaries	States and second states of the	an Connection	Upstream Accessori	Cape Incorporate St	abean Convection
157 & 1.0 157 & 1.0 108 257	R				Cape terminals 190 Spreaden Dotender franz term Argustable terminals		Insulating shields Terminal shields	Cage terminals 1 Screaders Excended frunt to Adjustable termin	erminals
<u> </u>	_				*			_	
at Nos	Description MCCE DAY		64 themal magnetic						Quartity
123061	FrontMela	r-driven handle	NICCE DAY SOMOGE DAY 125 as MICCE DAY	0 24-230 Vec -:	24-230 Velc				1
						No.	Ocea 🦛 Previou	Not	



- > Step 4: Protection devices (automatic inverters only)
- This window is used to determine the type of protection required for the control circuit of the inverter, and the prospective lsc for the protected power supply.
- The lsc of the normal power supply is that which you indicated for the panel (see page 09). The devices needed to protect the control devices are added to the list automatically.
- To continue, click on **Next**.

Flang divide fixed DRV Friveture 1	Man Isc	Secondary ISC	Protection Type	
Flang divide fixed DNV Privators 1	ke (* + 100)	10KA clac c=16KA 10KA clac c=25KA 25KA clac c=25KA 25KA clac c=30KA 35KA clac c=50KA	And and	
		DP1*metors		
🗶 Ouer 🐟 Previus 🐟 Nos 🞺 Add				

- > Step 5: Choice of the protection devices for control circuits nos. 1 and 2
- These 2 windows which appear one after the other enable you to select the characteristics of you protection devices 1 and 2. To continue, click on Next.

Polarty	Rating	Oave	100	Standards	Type	Modules	Control Type	Lading
	23. 33. 44. 63.	C. 63 0	100A/1156A 200 4	084/947.3	AC AC A Hpi	1	Protecturade Meter-driven handle 2001- 3TDP and 60 Automatic resetting 2304-(- 3TDP and 60 Automatic resetting 24(404-)	Padleck accessories
110 to 413 12 to 40V 1 R 230V ac 1 R 24-40V ac 1	acide	1.6K 2.6K 3.6K	g sentects Freuit signed and second 175	Alumnum termin	socies as Somi <sup>1</sup> opstream s Somi <sup>2</sup> downstre sheids			
t Nos 1956	Description DX1 MCB 6000/30	kA ⊕ C 20A						Quer 1
						X	Due Perios	Next

Repeat the procedure for the second protection device then click on Next.

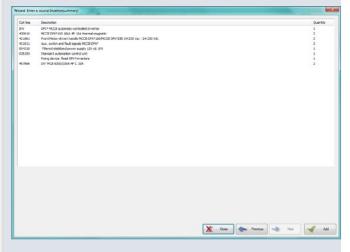
olarity	Rating	Curve	XCU	Standards	Type	Nodules	Control Type	Loding
	24 8 24 8 34 64	4000A/	100A 0217, 4009	1947-2	AC A Hpi	4	Providence Peter-deven handle 220%- STOP and 60 Automatic reacting 230%-/- STOP and 60 Automatic reacting 24/487/	No Padlock accessories
10 to 415 2 to 480 230V ac 1 24-48V a	Lündervoltage istease 1V ac acide c-Nome) c/ac(1-700ms) asse 238V with second	14c 24c 34c 44c	ista Fault signal seitä Invanue 175	Acces Alumnum semina Sealable terminal Insulating shelcs	s SOm - upstream			
kas 96	Description Dx1HCB 6000/3044	€C 334						Quer 1
						X	Doer Perioa	Net

## PARTS LIST MODULE



#### > Step 6: Summary

- This window displays the complete list of catalogue numbers for the supply inverter and its control circuit.
- If the panel has several identical inverters, adjust the quantity, then click on Add.



- In the active list in the Parts list module, all the connected products are grouped together under the catalogue number corresponding to the inverter.
- This part number includes the locking plate, the complete circuit breakers with any connection accessories and their auxiliaries, and for automatic inverters, motor-driven controls and the electronic control box.
- Other products for control of the inverter and for additional functions must be ordered separately.

RCBO MCC8 DPX <sup>6</sup> 250 25kA 4P 250A thermal-magnetic	420229	1
RCBO DX*6000/10kA 4P C 32A 300mA Type AC	411208	1
DNX <sup>®</sup> MCB 4500/4,5kA 1P=N C 10A	406773	5
RCBO DX*6000/30kA 4P C 40A 30mA Type AC	411190	1
DNX <sup>4</sup> MCB 4500/4,5kA 1P+N C 16A	406774	5
MCCB DPX <sup>2</sup> 250 25kA 4P 250A thermal-magnetic	420219	1
Time-lag switch 16A 230V	412602	1
Power contactors 2NO-25A/230V coll	412523	2
Light sensitive switch 1 function	412623	1
Multifunctional digital timer 2/06A	412641	1
Terminal Blocks	Terminal unit	1
DPX <sup>4</sup> MCCB automatic-controlled Invertor	INV	1
i- MCCB DPX*160 16kA 4P 16A thermal-magnetic	420010	1
Front Motor-driven handle MCCB DPX*160/MCCB DPX*250 24-230 Vac - 24-230 Vdc	421061	1
Aux. switch and fault signals MCCB DPX <sup>4</sup>	421011	1
ID-MICCB DPX*160 16kA 4P 16A thermal-magnetic	420010	1
Front Motor-driven handle MCCB DPX*160/MCCB DPX*250 24-230 Vac - 24-230 Vdc	421061	1
Aux, switch and fault signals MCCB DPX <sup>8</sup>	421011	1
Filtered stabilized power supply 12V cd. 6W	004210	1
Standard automation control unit	026193	1
Fixing device fixed DPX <sup>4</sup> invertors		1
DX <sup>4</sup> MCB 6000/10kA 4P C 10A	407896	1
DX <sup>4</sup> MCB 6000/10kA 4P C 10A	407896	1

#### **B. MOULDED CASE SUPPLY INVERTERS**

Moulded case inverters are selected using the same principle as that for supply inverters.



Each case has a corresponding execution type.

When motorised operation is selected, unlike air MCBs, the motorisation will change the mounting in the enclosures.

#### > Step 1: Characteristics

- > Step 2: Normal device
- > Step 3: Protected device
- > Step 4: Protection (automatic inverter only)
- > Step 5: Summary



#### 3. Selecting additional products

The **Additional products** family is used to add other manufacturers' products to the panel. The list of additional products is initially empty. Before a product can be added to the panel, it must first be created by describing a number of its characteristics. It can then be used in all future studies. You therefore build a personal library of products, which is automatically saved and always available, even after XL PRO<sup>3</sup> has been updated.

#### A. CREATING AN ADDITIONAL PRODUCT

Select Additional products in the list of product families.

in the	incost preducts		Search
y Hudy	Equal of products		Chardistan Oranisma @Despeter
a Dente	Canad analoga		
dec.leture	Cabrico e nortier	Secular .	het Provention Faces (2)
NOT THE	20 996	Set um Turomete netalen steuren	83.9008
10.000	000002	kepshore due sprofer alliers	10.0000
020088	0024034	Others medicates	228, 5002
000000	at an international second sec	Farrier 2009an 20208 1-304	100.000
6.37.999	80.07209	manufactured MID 38.1	4,1100
632488	801708	Conections 7 vertreblan 1006	24-000
040477	80464077	visitive habed print (man content	12,0000
.8.2	Paint21-55-100-000-00	NUMBER OF DESIGNAL REATION 1 (JEEK IN AND 49)	46.0000
	DML-49070610-39115	CONFACTELIA INCIDIA 22044C	1.0008
28	205.41.08.49800	CONTROLING IN LINE IN LINE	1,0008
	CTHUISE	CIWINIA	120.0000
SE CHRISTIAN 35	OCEUM	taite & taines (fisse Causel)	75,0000
28.5-tradec	TOPIA.	Balla à barres d'assa Tansar	78.0008
UC/N	BC000 s	NUTERIES, 4 NOOLLES HORS FOLIANETURE	1.000
LICA .	8021383	WARDER 2 MODILELHOND FOLDERING	0.0008
LICON .	8004	WORKER, 4 WOULDS	1.000
ncavo.	F+30/4	INCTORNAL R. DYNUPPAGE	1.000E
TROMO	1422	INTERPACE SCS	1.0008
TRONG .	E-MADCN	ALPENTATION B.0	0.0000
00240	EGIOCI	ALPHERINTER RUMAN	2.0008
3040	P+20	HODILE SCEWARD	1.0008
TACHO	1425	NODAL NEW DIE	0.000
000	P424	WARDER VER.	1.0008
NOPE.	BHSIN UNCD	fictory war 4 Halas Independent	1.0008
NORM .	British BBC2	Billion war 2 mbas independent	2.0000
home .	249620	stanondation (autrient 10*	1.0008
N/HO	246800	Nia/ator auto vitro	3.0008
24	MPD12	When under 15/00	00.0000
ella Dove	Deter COR.	Leetwrniar ditrenge	1.0008
elts Cone	6-1300012	Compleur Elimença	1.0008
KOPLEX.	\$46280	EARS 3748 TH MODULE LA 3 BAARES DE 30 A 121/10	2.0008
kirkirk	548300	HIGHE HER/CRIT IS JUST	1.000
IDAD.	NC	4 PKERATS	1.0006
	141_14	A	2499.4130
w.	0726	Eachth Indeproved I parties fees OP268	TL-008
428e	CLAR	INA.ID	38.0108
INCER.	Aprilia .	indian aunitary	9.0008
0.068	PELADS	APT 2201	all.0008
TOTR IC ATTRO	12410230	10 attrio 1 Canal	TL.00m
decore	6063	CenterSer 3p - 226 - 500 # AC1 (F11 - 158 HIV AC3)	1.000
diriante	WV301	variador de reticidad 7.8 Ltim	2.0006
inge legeni	802905	A mi	1.000
impe Lepant	£+0	Alimentation multilaters	0.0006
1.14	NUMBER OF STREET	Revision and the second second	78.000
			1 📥 🖋 🗤 🗶 🖛

In the window which appears, click on the **New** button then fill in the various fields in the dialogue box.

The text entered in the **Description** field will be used in the **Parts list** module.

The **Short description** and **Abbreviated description** fields will be used in the **Arrangement** and **Circuit diagram** modules respectively.

Specify whether it is a power or management product. This information affects the automatic arrangement (see page 28).

It is essential to specify the number of modules for modular products, or the dimensions for other products, in order to define the enclosures correctly. For non-modular devices, indicate the type of mounting: **Plate, Flush-mounted, Already planned**. If the **Already planned** option is selected, no additional fixing device will be added to the Parts list.

Information on estimated labour and the net price ex. tax is used by the **Summary** module (see page 91).

Type of identification (modify using the list of ID letters).

**Symbols**. One or more symbols corresponding to the additional product can be selected. The arrows are used to organise the order of the symbols. By default, additional products are represented in the diagram by a simple rectangle. It can be replaced by one of the symbols from the library by clicking on **2**. This library will be enhanced in future upgrades.

#### **B.** ADDING AN ADDITIONAL PRODUCT

Select the product from the list of additional products, then adjust the quantity required and click on **Add**.

The product is automatically integrated into the circuit diagram of the panel.

In the **Preview** module, the product represented by a geometric shape (square or rectangle) keeps to the dimensions that have been assigned to it.

It behaves and moves in the same way as any other product.

#### **C. MODIFYING AN ADDITIONAL PRODUCT**

You can modify your additional product irrespective of the module you are in. Right-click, **Modify**.

You open its characteristics window just like for any other product.



The list of complementary products can be filtered by **Manufacturer**, **Reference** or **Name**.

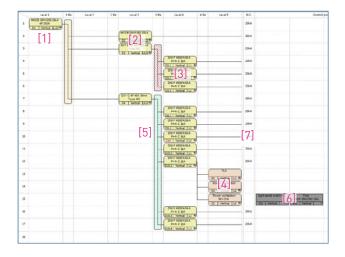


## ARRANGEMENT MODULE

The Arrangement window shows the electrical organisation of the panel in the form of a tree structure. The products are represented by tiles arranged in the boxes of a table.

### A Introduction

- Each column in the arrangement represents one distribution level.
- XL PRO<sup>3</sup> arranges the devices in the following way:
  - Main devices [1] at level 1
  - Power devices and residual current protection devices
     [2] at level 3
  - Secondary protection devices [3] at level 4
  - Control devices [4] at level 5
- No devices are placed at level 2, apart from supply inverters (see page 25).



- This column can be used, for example, to add an additional product. Moving devices from level 3 to level 2 only affects the appearance of the circuit diagram.
- The narrow columns between the levels are for busbars and distribution blocks.

- Each device is connected to the first device of the next level up which is located on the same line or above it. The root of the tree structure can be a breaking device (switch or MCB) or a distribution device (distribution block or busbar).
- The last columns are reserved for management products [6], which are not generally integrated in the power circuits (programming, signalling, etc.). For example, XL PRO<sup>3</sup> will automatically place a light sensitive switch in these columns (this type of device usually controls a contactor). If the device has to power a lighting circuit directly, move it to level 5. It then becomes a control product and is inserted automatically in the tree structure.
- The number of columns for management products can be adjusted according to requirements (from one to five) see page 33.
- The **B.C.** [7] column shows the breaking capacities resulting from joining devices to higher level devices if they exist. If there are no higher level devices, the breaking capacity of the device on its own is shown.



### Automatically calculate distribution and break lines.

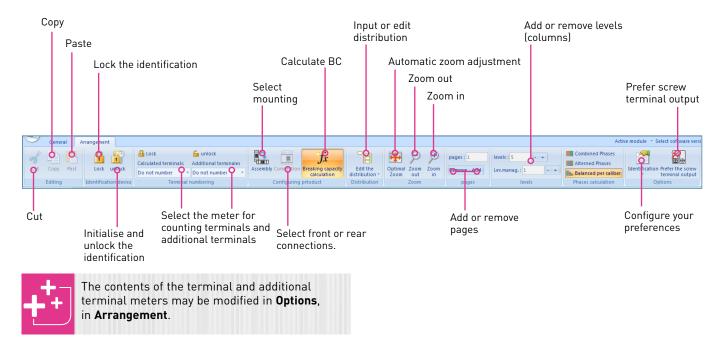
From here, the program automatically determines which products' optimised horizontal and vertical distribution are the most suitable for your study. It also plans the necessary break lines for the enclosure selected.

This data is always editable (see page 66 - Distribution/page 35 - break lines).

#### **BACK TO CONTENTS**

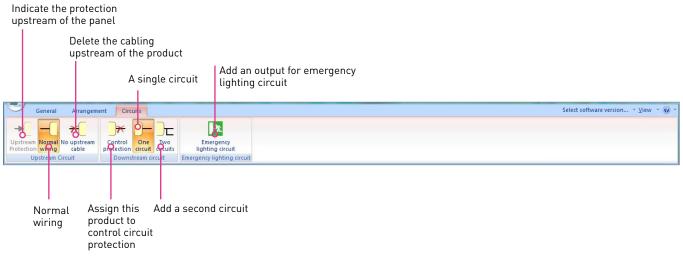


### 1. Arrangement tab



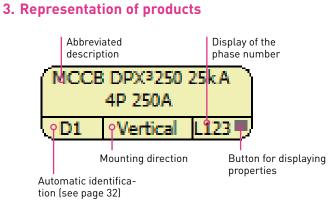
### 2. Circuits tab

Click on one of the product boxes in the arrangement module to bring up this menu.

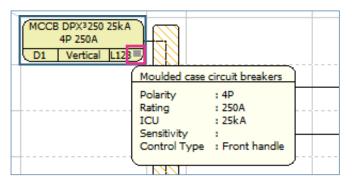




# ARRANGEMENT MODULE



The detailed characteristics of each product can be displayed by right-clicking and selecting the **Properties** option in the popup menu, or clicking on the small grey square at the bottom right of the product label.

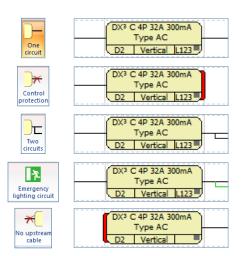


	s and shapes of the product tiles ntify the products:
Breaking and protection devices	MCCB DPX3250 25kA 4P 250A D1 Vertical L123
Control devices	Power contactors NO-25A
Management, signal- ling and measure- ment products	C2 Vertical L2
Power supply products	Transf-40VA
Power sockets	TR1 Hypra Socket 250V 2P+T 16A DOM



### 4. Representation of circuits

- Circuits are shown by coloured lines:
  - Black: normal circuit
  - Green: emergency lighting circuit
- The icons in the Circuits tab on the ribbon bar are used to manage the circuits in your panel. Changes made using these tools are shown on the screen:



### **B** Configure preferences



You can modify the options, terminal meters, default levels and the type of calculating phases by default.

You can choose to automatically hide the distribution screen and the default output terminal type.

### C Use

### 1. Arrangement menu

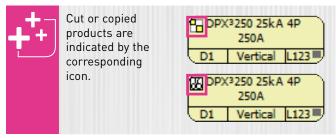
A. CUT, COPY, PASTE



To select several products at once, draw a box round your selection by dragging the mouse while holding down the left-hand button.

	32A 300mA ` e AC				
D3 Ve	ertical L123				
		DNX3 450 P+N C			
		D3.1 Vert			
		DNX3 450	0/4,5kA		
		P+N C		-	
		D3.2 Vert			
		DNX3 450 P+N C			
		D3.3 Vert	ical L3 🛡		
 Тур	40A 30mA e AC				

- To access these three functions you must have selected at least one product.
- To cut or copy one or more products, make your selection then choose the operation in the menu or the toolbar: or a.
- By default, when you Paste products, they are inserted on the last line of the arrangement.
- If you want to paste them to another location, right-click to select the required position then select **Paste** in the popup menu.



To move a product see also page 34.



# ARRANGEMENT MODULE

### **B. IDENTIFICATION**



By default, the numbering applied to IDs follows the order in which the devices are arranged. When a device is moved, the IDs are automatically updated. This may be inconvenient if you want to make changes to a panel for which you have already created labels with IDs.

#### > Lock the identification

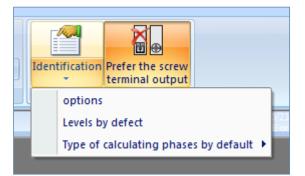
Locking the identification enables you to maintain the validity of the labels by fixing the IDs of all the devices in the panel. It is also possible to lock the IDs individually for each device (see page 37).

#### > Initialise and unlock the identification

- There are two possible options:
  - **Default identification** immediately resets all the IDs according to the arrangement of the devices
  - **Unlock only** keeps the IDs as they are, provided that no changes are made to the arrangement

### > Changing the identification

Click on the icon for this option in the ribbon bar then select Identification in the Preferences menu.



### The Identification options window opens.

Select the line you want to change then double-click in the required column to change the current identification or the default identification.

Id	entification options			
Γ				
	Product type	Identification	Default identification	
	Additional Products	CMP	CMP	
	Blade-Type Cartridge Fuses	CC	CC	
	Contactors	С	С	
	Control products additional letter	С	С	
	Control/Signal Transformers	TR	TR	
	Counters	CP	CP	E
	Dimmers/Remote control dimmers	VT	VT	
	Emergency stop mushroom	CU	CU	
	Heating	CH	СН	
	Indicator light	н	Н	
	Industrial power contactors	K	к	
	Light-sensitive Switches	IC	IC	
	Load-shedders	DEL	DEL	
	MCBs	D	D	
	Modular power supply units	AM	AM	
	Power Sockets	PC	PC	
	Power switch	1	I. Contraction of the second sec	
	Pulses operated latching relays	Т	т	
	Radio waves / Power line controls	CAD	CAD	
	Rectified/Stabilised Power supplies	ARS	ARS	-
			🖌 ок 🗶 с	Cancel

### Click on **OK** to confirm your change.



It is also possible to customise the IDs individually for each device (see page 37).

### C. CALCULATION OF THE BREAKING CAPACITY (BC)

Displays the breaking capacities in the arrangement (see page 30).



You can display or hide the breaking capacity by clicking on the **Breaking capacity calculation** icon in the **Arrangement** tab in the ribbon bar.



### D. Z00M

Select the required reduction or enlargement ratio in the submenu.

#### E. PAGES

- The arrangement table is subdivided into 16-line pages, and the number of pages is adjusted automatically according to the number of products.
- You can Add or Remove blank pages to improve the appearance of the presentation.

### F. MANAGEMENT PRODUCTS

- Management products are positioned in the last columns of the arrangement.
- The Remove/Add a level for control products options, or their equivalents in the ribbon bar, can be used to adjust the number of columns.
- It is therefore possible to have up to 5 management devices on the same line, and thus in the same circuit. This avoids having to add additional lines, which would affect the appearance of the circuit diagram (see page 40).

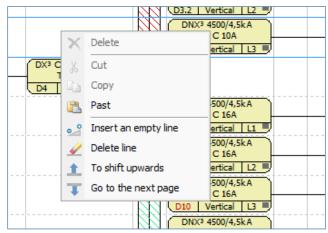
Control	products
Light sensit switch-5A	Time
	switch-2NO/NC-16A
IC1 Vertical	IH1 Vertical

### 2. Organising the panel

A. INSERT/DELETE LINES, PAGE BREAK

To access the arrangement table appearance options:

- Right-click in an empty box in the required location
- Select the option you require in the popup menu



The new lines are inserted above the selected line.

Only empty lines can be deleted.

The **Go to the next page** option (popup menu) automatically creates a new page if this is necessary.

To add or delete a page, use the dedicated tools in the **Arrangement** tab in the ribbon bar.



# ARRANGEMENT MODULE

### **B. MOVING PRODUCTS**



The products are initially arranged in the order in which they were entered in the Parts list. If they were entered following the electrical logic of the panel, from the main device to the terminal circuits, very few changes will be necessary.

Products can be arranged manually in two ways.

### > Move them directly with the mouse

- Left-click to select the product(s)
- Drag the product(s) holding down the mouse button
- Release the product(s) at the required position

### > Move them using Cut and Paste

- Left-click to select the product(s)
- Click on the 🗹 Cut icon in the toolbar
- Right-click on the required position (the box must be empty)
- Select **Paste** in the popup menu



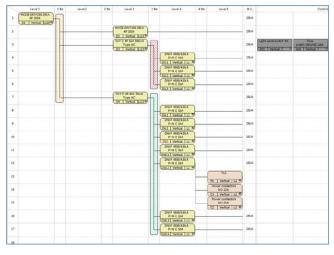
If you do not select where the products are to be pasted, they will be positioned on the last line of the arrangement.



To select several products at once, drag the mouse while holding down the left button, or, if the products are not next to one another, hold down the Ctrl key and click on each one in succession.

### > Arranging the panel

if you have followed the previous examples step by step, the tree structure of your panel should look like the one below.



Only the timer, contactors and the last MCBs added are not in their places in the tree structure. The two 10 A MCBs are placed on the last two lines.

In this example, if you want to insert MCBs at the end of the lighting cluster, you must first insert 2 blank lines above the **DX<sup>3</sup> C 4P 40 A 30mA**:

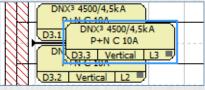
- Right-click in an empty box, on the RCBO line
- In the popup menu, select the Insert an empty line option
- Repeat the operation to insert a second line
- Select the 2 MCBs
- Drag them to their positions with the mouse





Automatic insertion without having previously created blank lines:

- Select the products to be moved
- Drag them to the required position with the mouse: an insertion mark shows where the products will be inserted

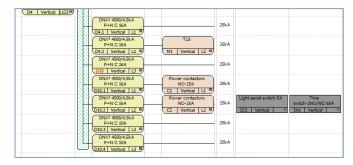


- Release the mouse button
- The products located below this position move down automatically

Items can only be automatically inserted between two boxes which are already occupied.

To complete the arrangement of the panel:

- Move up the timer and the 2 contactors so that they are opposite the lighting circuits
- Place the time switch and the light sensitive switch on the same line as the last contactor



### C. BREAK LINES

By default the products will be installed one after the other in the enclosure, in the order of the arrangement.

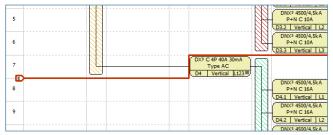
The program automatically calculates break lines according to the selected enclosure. However, it is possible to change them. With the **Break** option, force a device and all following devices to move to the next row down or into the next enclosure or cabinet.

A break line is symbolised in the arrangement by a horizontal line. To cancel it, select the **Without** option.

### > Example

- Right-click on the DX<sup>3</sup> 40 A 30 mA
- Select the Break line option, then Row





Break lines are only fully displayed in the **Preview** module (see page 52).

They do however affect the choice of enclosure.



# ARRANGEMENT MODULE

### 3. Modification and deletion

### A. MODIFYING CHARACTERISTICS

To modify the characteristics of a product, select the **Modify** option in the popup menu which opens when you right-click on the product.

	Level 1	1 Bis	Level 2	2 Bis	
1	MCCB DPX3250 25kA 4P 250A				
	D1 Vertical	Modify	-		(MCC
2	×	Delete	-		
_	🔒	Break line	•		DX3

Changes are made in exactly the same way as in the **Parts list** module. However, they can only be made to the selected device, as adjustment of the quantity is locked.

I magnetic MCB'								
100 4500A/109A 4500A/09A 10000A/164A 259A 368A 508A	ZC 6089	Standards 3/947-2	Type Without A Mpi	Sensibility 30mA 200mA 5 300mA 5 1AS Type ac	Earth leakage Grode peoe Add-on	connection Ecremises Screw(Auto	Modules 4	Control Typ Front Annole Nator driven handle 2007 STOP and GO Automatic re STOP and GO Automatic re
Signaling contacts Vithout 2 ac 2 ac 4 ac	Pault signal switch Webout 3 PS	Aluminium termina	aories la Sūmei Lupstrean la Sūmei downstre rivelda					
32A 300mA Type /	кc	9	uantity				1	Contem

### **B. UPSTREAM PROTECTION**

This option is only active for a switch at the top of the tree structure. A popup list can be used to select the type of upstream protection device located in another panel. This is necessary so that XL PRO<sup>3</sup> can calculate the resulting breaking capacities.

Choosing upstream protection
No Protection
DPX250 160A 36KA
DPX250 160A 70KA
DPX3 160 160A 16KA
DPX3 160 160A 25KA
DPX3 160 160A 36KA
DPX3 160 160A 50KA
DPX3 250 160A 25KA
DPX3 250 160A 36KA
DPX3 250 160A 50KA
DPX3 250 160A 70KA
V OK X Cancel

### C. SELECTING THE MOUNTING OF THE DEVICES

The devices in the DPX<sup>3</sup> range can be mounted both vertically and horizontally.

The default mounting direction is **Vertical**.

However, the **Mounting** option in the popup menu can be used to select horizontal mounting, and for certain devices, mounting in a **Sleeve**.

The mounting of devices affects the choice of enclosure.

Level	1		1 Bis		Level 2			2 Bis	Lev
MCCB DPX32		(A	<u>77</u>						
4P 250	3PSI	Mod	lify						
	×	Dele	ete				····		MCCB DP
	В	Bre	ak line			٠.			4P 2 D2 Ve
	Ŀ	Mou	unting			×	~	Vertica	
	I	Pha	ses			•		Sleeve	
		Con	nection			•		Horizo	ntal
	····(	Ups	tream C	ircuit		•			
		Mod	lify the i	dentific	ation				



### D. DELETION

When the **Delete** option is selected in the popup menu, the product is immediately removed from the tree structure and the parts list for the panel, as are all the products associated with it.

Level 1	1 86	Level 2	2 815	Leve
MCCB DPX3250 25k/ 4P 250A				
D1 Vertical L12	ात्र Modify		M	CCB DPX
	Ҟ Delete			4P 2 )2 Ver



There is no undo function.

If you delete a product accidentally, you will have to restart the adding a product procedure.

### 4. Device identification

### A. MODIFYING THE IDENTIFICATION

XL PRO<sup>3</sup> automatically identifies devices (see page 32), however the IDs for each device can be customised.

- Select Modification of the identification in the popup menu

Modification of the identification	
✓ Use the default identification	
Identification modify :	D2
Default identification:	D2
- ок	X Cancel

### - Deselect Use the default identification

- Enter your new ID in the Identification modify box, then click on  $\fbox{}$  OK

These customised IDs are not affected by changes to the arrangement.

### **B. LOCKING/UNLOCKING THE IDENTIFICATION**

The popup menu also has an option for locking or unlocking the default identification of the device. Locked IDs will not be affected by changes to the arrangement.

+	When an identification has been locked, it appears in red in the product title block.
	DNX3 4500/4,5kA P+N C 16A
	D10 Vertical L3



# CIRCUIT DIAGRAM MODULE

If you have already selected your products in the Parts list module and organised the panel in the Arrangement module, XL PRO<sup>3</sup> automatically draws the electrical distribution diagram for the panel in the Diagram window.

XL PRO<sup>3</sup> also enables you to create your diagram directly using dedicated tools (symbols palette and drawing/wiring tools in the ribbon bar).

# Media Clay 2011 Max A

### **A** Introduction

- The diagram is directly connected to the tree structure of the Arrangement module. Each product occupies a box on a grid made up of 25 mm squares [1]. Its input is connected to the output of the first device on the next level up located to its left. XL PRO<sup>3</sup> spreads the diagram over as many pages as necessary. The pages are numbered in sequence and can be accessed via the tabs below the diagram [2].
- Each device is identified by its electrical symbol and a summary of its properties which can be customised (see page 40).
- You can move these symbols by simply clicking on them and dragging them. First check that the destination location is empty. (To insert an empty column in the diagram, see page 41).
- Each page has an information area [3] and a configurable title block [4], which are referred to as the folio, which can be configured via the Folder management tab which can be accessed via the Start menu (see page 04).
- Products in the panel which are not directly part of the distribution tree structure (management products) are placed on a control page which is located at the end of the diagram (last page).



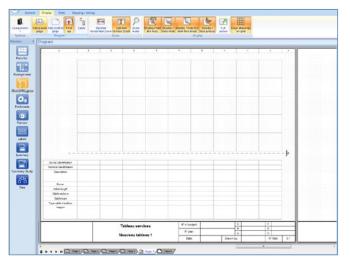
When a product is made up of several symbols (parents and children) you can move all the components by clicking on the parent product and dragging it.



### **B** Drawing your own circuit diagram

If you want, XL PRO<sup>3</sup> also allows you to draw your circuit diagram yourself, without using the **Parts list** and **Arrangement** modules.

- To do this, start by opening a new study, then click directly on the icon representing the Circuit diagram module.
- A blank power page appears. The ribbon bar displays the **Display** tab (see details on page 47).



Insert the products you need for your panel on the page using the Components palette.

Internal components	-	
ŧ	L L	Ĺ
Circuit Breakers	Power fuse carriers	Switches
ŧ	Ţ	ſ
EDF MCB	ксDs	Fuse carriers
ф	Į	Ш
т	B Motor-driven MCBs	
_b		
٦	-1	<u>۳</u> ۲
-	Pulse oper. latch.relays Ti	Time switches
₽		<sup>-A</sup> D
Light-sensitive switches		Remote controls
리	ð	ыļф
Relays	Heating management	Control and signal units
Ø	0	\$
Measurement	Transformers	Rectified and stabilized p
Ч	BAES	d BIP
Power sockets	Emergency lighting	Technical Alarms
?	Ø	
Additional products	Additionnal terminals	
External components		
<u>ج</u>	<u>ا</u>	¢
Emergency breaking NC	Emergency breaking NO	Cell
ъł	F'	1
O/C Switch	3-position switch	ON/OFF switch
9		
Indicators		
Information Symbols		
/	19	//
1P	2P	ЗP
11	1119	p

The products are represented in the form of symbols which are divided into 3 categories: **Internal components, External components and Information Symbols**.

To insert them in you diagram, first click on the chosen symbol to select it, then click on the page in which you want to insert it in order to paste it.

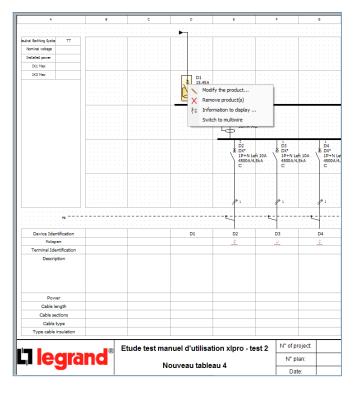
- Then using the **Cable** tools in the ribbon bar to draw your paths.
- Other drawing tools are also available in this module (see page 49).



# CIRCUIT DIAGRAM MODULE

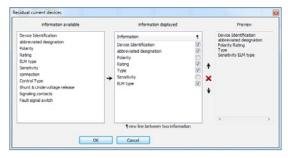
### C Popup menus

### 1. Symbols popup menu



- This appears by right-clicking on the symbol of the selected product.
- Clicking on Modify the product opens a characteristics selection window identical to that in the Parts list module.
   Only the area for selecting the quantity is inactive (1 symbol = 1 product). Use the Duplicate icon to add an identical device. The new product will be added on the control page. You can then insert it in your diagram by simply clicking on it and dragging it.
- You can use the Remove product(s) icon to remove a product from the diagram. This deletion will be applied automatically to the other modules (modification of Parts list quantity, Arrangement, etc.)

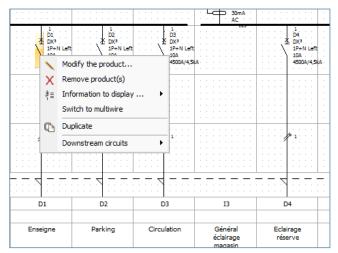
To customise the properties display beside each symbol: select Information to display in the popup menu and select the characteristics you want. The properties are updated for all similar products.



You can also choose to Switch to multiwire. The product currently selected will be duplicated automatically as many times as necessary.

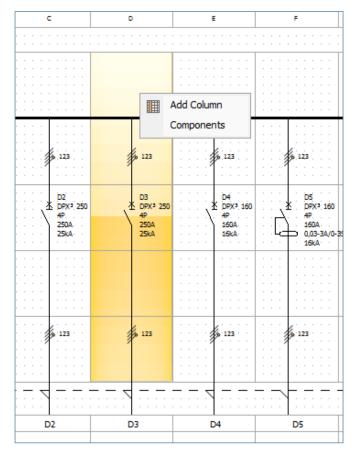
1	ç	ł	2			DA/ m/A	10k	<b>A</b> :							1								
 		L	_	A	č	114		-	 _			_	_	_	 -	 _		т	-	_			-
						-				ГÍ	٦.								6	E.			
-	-								4		4							Ł	2	2			
				-		-			. ≏	1	4	-	-	-	·	-	Δ.	£	p	NX	۰.		
						-		·	$\mathbf{N}$		M	-			·		$-\lambda$	6	1	9+1	Ν		
									1		М							١.	10	JA.			
					-														4	0	A/	4,5	¢Α
									Т		1												
																		t					
				-					·				-	-	L '			1		-			

In the Downstream circuits menu you can manage the circuits in your panel.



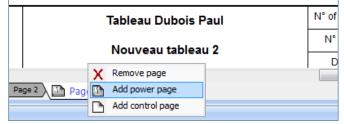


### 2. Columns popup menu



- Using the Add Column icon you can add an empty column to your diagram, for example in order to add a new product or move a product. The new column is inserted to the left of the selected column. If necessary, a page is added automatically.
- Clicking on **Components** automatically opens the Components palette (see page 41).

### 3. Pages popup menu



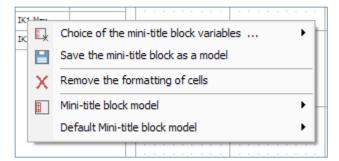
Right-clicking on the tabs representing the various pages opens a popup menu in which you can: add a power or control page, or remove a page.

	You can only remove a page if it is empty.
$- \ $	



# CIRCUIT DIAGRAM MODULE

### 4. Mini-title block popup menu



The Choice of the mini-title block variables icon enables you to select the information to be displayed.

)2 )PX3_250 IP. 150A 15kA	X	Modify the product(s)	49 160 0,0: 16k	160 X ppx 160 X 160A 160A 3A/0-25 003-3A/0-25	07 0X <sup>2</sup> C 49 1004 258A 258A
1.1.1	*≡	Information to display	👌	Moulded case circuit breake	rs 🔅
		Switch to multiwire	~	Device Identification	
	 6	Duplicate	~	abbreviated designation	
123	123	123		Polarity Rating	5 123
· · · ·				Breaking capacity	
	5			Sensitivity Control Type	
	D3	D4	Do	00 07	DB

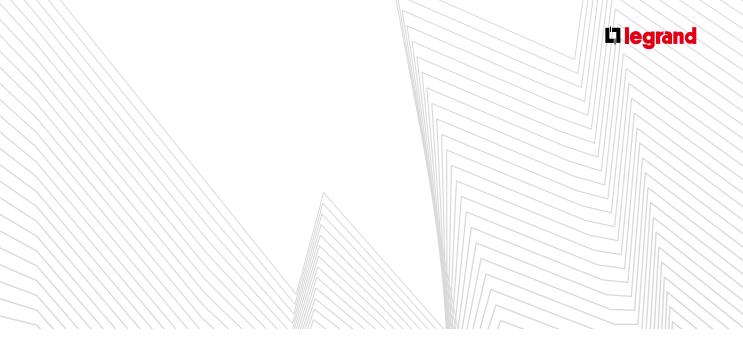
Clicking on Add a new variable also enables you to create the variable you want manually. It will be added to the previous selection list automatically.

Type cable insulation	
New variable 1	

- After choosing the list of variables, you can change the order in which they appear using the Raise the line and Down the line commands.
- Then format the data (font, colour, etc.) using the tools in the Text tab in the ribbon bar (see page 46). You can use the Remove the formatting of cells icon to return to the default settings. Copy formatting enables you to automatically apply the changes made to other cells.
- When you have finished formatting your mini-title block, you can select Save the mini-title block as a model using the corresponding icon. You must give a name to each model (template) created this way.
- This model will then be available in the Mini-title block model menus, so that you can re-use it in other studies. You can also choose to select this as the Default Mini-title block model. This will then be applied to every new study.
- To enter the chosen variables: click on the line then type in your text. Finish by pressing **Ctrl+Enter** to confirm, then use the arrows on the keyboard to go to the next box. You can also click on the next line.
- You can insert an image or a pictogram in any box in the mini-title block by clicking on Pictogram/picture. You can then use the standard Open menu to select the image to insert.



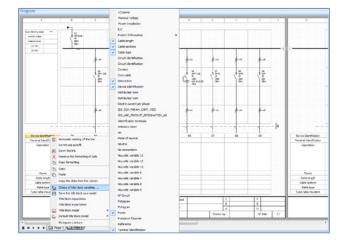
To fill in several mini-title block boxes identically: select a box, press **Ctrl+C** and then press **Ctrl+V** in the location where you want it to be copied.



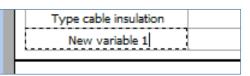
### 5. Title block popup menu

			SkA ····		25kA		16kA	. La	⇒ 0,03-3A
		Automatic resizing of the line							16kA
		Do not use autofill		1111				111	
		Raise the line						1.1.1	
	<b>B</b>	Down the line							
	X	Remove the formatting of cells			6 123		5 123		6 123
	D	Copy formatting							
	ľħ	Сору							
	-	Paste							
	Ð								
Device Identif		Copy the data from the column			3	0	4		D5
Terminal Identi	Х⊐	Choice of title block variables	•				-		00
Descriptio		Save the title block as a model							
		Title block importation							
		Title block exportation							
		Title block model	•						
		Default title block model	•						
Power		Pictogram / picture							
Cable leng		r letogram y pretal e							
Cable section	nne -								

The Choice of the block variables icon enables you to select the information to be displayed.



Clicking on Add a new variable also enables you to create the variable you want manually. It will be added to the previous selection list automatically.



After choosing the list of variables, you can change the order in which they appear using the Raise the line and Down the line commands. The Automatic resizing of the line icon will adapt the height of the line according to its contents.

Device Identification	I1	12	D1	D2
Terminal Identification				
Description	Coupure Générale	Général éclairage extérieur	Enseigne	Parking
Power				
Cable length				
Cable sections				
Cable type				
Type cable insulation				
Pictogram			≓ <mark>7</mark> €	│ ⋛ <mark>7</mark> €
`			ableau servi	

Then format the data (font, colour, etc.) using the tools in the **Text** tab in the ribbon bar (see page 46). You can use the **Remove the formatting of cells** icon to return to the default settings. **Copy formatting** enables you to automatically apply the changes made to other cells.



The Copy and Paste tools enable you to reproduce the content and formatting of a box.



# CIRCUIT DIAGRAM MODULE

- When you have finished formatting your title block, you can select Save the title block as a model using the corresponding icon. You must give a name to each model (template) created this way.
- This model will then be available in the Title block model menus, so that you can re-use it in other studies. You can also choose to select this as the Default title block model. This will then be applied to every new study.

Thank you for	naming the title block model
Title block mode	
	OK Cancel

- To enter the chosen variables: click on the line then type in your text. Finish by pressing Ctrl+Enter to confirm, then use the arrows on the keyboard to go to the next box. You can also click on the next line.
- You can insert an image or a pictogram in any box in the title block by clicking on Pictogram/picture. You can then use the standard Open menu to select the image to insert.

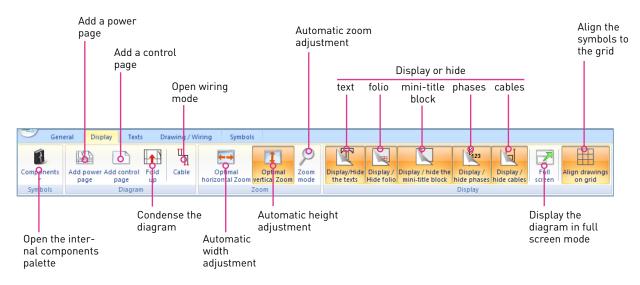
Device Identification	11	12	DS	02	D3	13	D4	DS	06
Terminal Identification									
Description	Coupure Générale	Général éclairage extérieur	Enseigne	Parking	Croulation	Général éclairage magasin	Eclairage réserve	Eclairage réserve	Eclairage spots gaughe
Power									
Cable length									
Cable sections									
Cable type									
Type cable insulation									
Alligue			≩ <mark>∨</mark> €	≩ <mark>V</mark> €	∋ <mark>∨</mark> ∈				

You can also Export your title block, or Import one from another XL PRO<sup>3</sup> study.



### **D** Tabs in the ribbon bar

### 1. Display tab



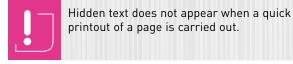
- **Fold up**: is used to obtain a representation of the diagram that takes up fewer levels in order to give more space for the title block.
- **Cable**: to go to wiring mode (see details of using this on page 49).



If your diagram has 7 lines it will be automatically condensed to 6 lines to fit the sheet. The Fold up button on the ribbon bar will therefore be inactive.



Several Folio models are available for modification in the Folder Management module (see page 104), accessible via the Start menu



printout of a page is carried out.



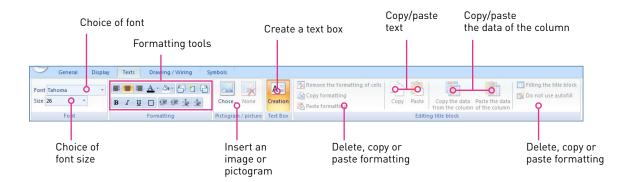
To exit Wiring or Zoom mode: click again on the corresponding button in the ribbon bar or press the **Esc** key on your keyboard.

To exit Full screen mode: press the Esc key on your keyboard.

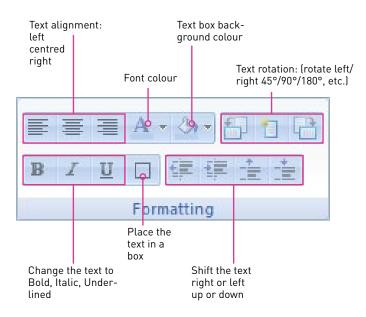


# CIRCUIT DIAGRAM MODULE

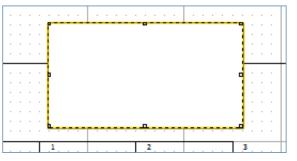
### 2. Text tab



### **FORMATTING TOOLS**



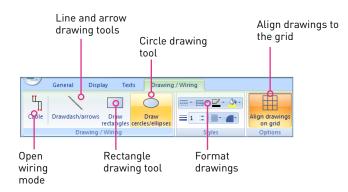
To adjust the size of a text area, double-click on it then use the sizing handles at the each corner and the centre of each side.



To insert an image or a pictogram: create a text box then click on the Choose button in the ribbon bar. You can then select the folder containing the image to be imported in the Open window.

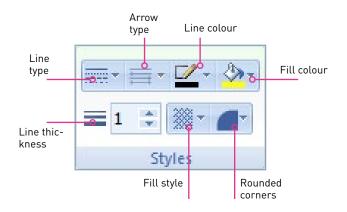


### 3. Drawing/Wiring tab



### A DRAWING TOOLS

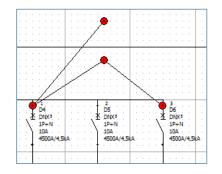
The drawing tools, excluding wiring, are used to highlight certain elements by using boxes, arrows, etc.



- These tools are similar to those found in graphics applications and their use is intuitive.
- The graphic elements added to the diagram are automatically placed on a grid with 2.5 mm squares (Management grid) to facilitate their alignment.

### **B WIRING TOOL**

- The Wiring tool provides automatic recognition of device inputs and outputs. The connection points appear in red and are therefore easier to see. They also adapt to the movement of symbols.
- You can also create a joining point. In Wiring mode, click on the power page. A black dot in a red circle appears. Then click on another joining point to link them. Create another point, etc.
- When your path is finished, press the Enter key on your keyboard.





The **Wiring** tool is also accessible in the **Display** tab in the ribbon bar (see page 45)

### ENCLOSURES MODULE

When the Enclosures module is opened, XL PRO<sup>3</sup> automatically calculates the enclosures with the capacity to house all the products selected in the parts list or the circuit diagram. This calculation takes into account the dimensions of the devices, their fixing mechanisms and the space required to connect them.

### **A** Introduction

- The module window shows the choices available and can be used to select the characteristics and adjust the reserve.
- Depending on the type of enclosure chosen, XL PRO<sup>3</sup> instantly calculates the overall dimensions and the total faceplate height used, while taking into account the number of enclosures required.
- This information is visible in the upper banner of the window.

Ender	ne pibe	Drivia cabinate		[haght	s webb is depth ) 725k258k144
K-1 125 painets K-1-300 residence		P 30			H. faciglation : 500 mm Riddle exclusion
				13 modules 18 modules	
		Dears		Lada	Pacepletes
		Transported Transported	Lock no. 850		Plants
	n) Parad	Unergigged reserve ped recerve : 0.0% Is heget available : 0 eve		_	_
				Percent of the second s	
				press.	
	greek.	C Halowia		Press	and the second sec
	A vite realized	C - St exade	Drive cabinets P 30		Privace Colorets     Color



The photo can be used to check the type of enclosure selected but is not an accurate reflection of the dimensions calculated.

### **B** Selecting the enclosure

- Enclosures are grouped into six families: cabinets, miniature cabinets, strengthened cabinets, flush-mounted cabinets, technical trunking and industrial cabinets. Only enclosure families compatible with the current study are shown.
- After choosing the family, select the required Enclosure type. The information in the banner, the dimensions and the faceplate height are updated automatically.
- By default, the enclosure is automatically fitted with a door. For an enclosure without a door, select IP 30 index. These characteristics are saved when the plan is redrawn.

You may modify your plan while saving the characteristics without risk of error. However, these characteristics are not saved when a new study is begun.

- Then select the usable height, the width of the enclosure, the door, the lock and the type of plate you require on your enclosure.
- In the usable height column, XL PRO<sup>3</sup> calculates the optimum height, but you can choose the required height (XL PRO<sup>3</sup> will then reinstall the products in the selected enclosures).

### 1. Reserve

Enclosures are calculated with a reserve percentage that can be adjusted using the + and buttons.

### A. MODULAR RESERVE

The **Modular reserve** represents the unused space on symmetrical rails for modular devices. It is shown as a percentage and as a number of modules. By default XL PR0<sup>3</sup> calculates the enclosure with a **modular reserve** of at least 20% which is accounted for by empty spaces, or even the addition of empty rails. The and buttons are used to increase or decrease this **modular reserve**. When the enclosure has no empty rails, the button is deactivated.



### **B. UNEQUIPPED RESERVE**

These positions are automatically fitted with solid faceplates. The unequipped reserve is indicated as a percentage of the usable faceplate height. It is not taken into account when calculating the terminal block reserve.

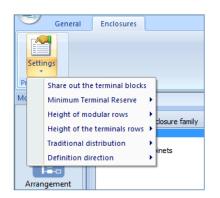
### 2. Joining

When the panel is made up of cabinets, they can be joined either horizontally or vertically. This choice will, of course, modify the dimensions shown in the banner.



As when choosing device characteristics, ensure that you follow the required order when making selections. Any change in a column results in the subsequent columns being reset to their default values.

### 3. Enclosures menu



### A. SHARE OUT THE TERMINAL BLOCKS

The software automatically calculates the space available for your terminals.

- There are two possible distribution methods:
  - Either grouping all the terminals together in the same place, which is a quick operation
  - Or distributing the terminals in the enclosures according to the products with which they are associated

### **B. MINIMUM TERMINAL RESERVE**

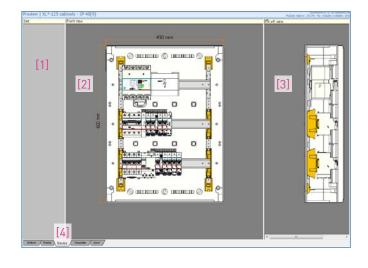
If the panel has an outgoing terminal block, a reserve can also be provided for the terminals. It is calculated as a percentage of the modular reserve on the basis of one output per available module. The minimum reserve percentage required can be adjusted using the Enclosures menu > Settings > Minimum Terminal Reserve. The default setting is 80%.

#### C. HEIGHT OF MODULAR ROWS

- For extendable enclosures and cabinets, the height of the modular rows used to calculate the enclosure can be selected in the Enclosures menu > Settings > Height of modular rows. The default height is always 150 mm.
- Any adjustment will affect all the rows. The height of each row can be adjusted individually in the **Preview** module (see page 50).
- "Ready-to-use" cabinets have a fixed row height of 150 mm.
- D. HEIGHT OF THE TERMINAL ROWS
- Selection of the height of the rows of terminal blocks, chosen from the heights given in the popup menu.
- **E. DEFINITION DIRECTION**
- The devices will be installed in the enclosures either from top to bottom or from bottom to top.

The preview module displays various views of the panel and can be used to make certain adjustments to it: dimensions of the enclosures and busbars, product layout, addition of accessories, etc.

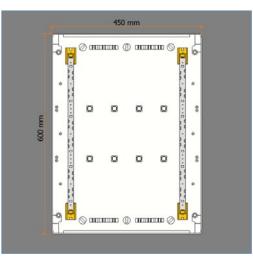
- By default the Preview module window is divided into 2 parts:
  - The workbench [1], for putting products down temporarily
  - The front view of the panel [2]
- A third pane [3] is available for displaying the side view of the panel. You can display or hide this using the **Display/** hide the side view icon in the **Preview** tab in the ribbon bar (see page 58). When the panel has several enclosures, you can choose which one will be shown in side view.



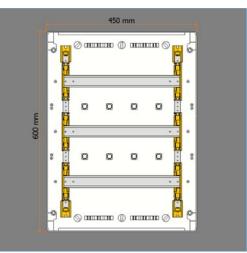
### 1. Tabs at the bottom of the screen

- There are five tabs [4], which are used for changing the display mode, represented by:
  - Bottom Faceplate
  - Frame Door
  - Device

### A. BOTTOM VIEW



### **B. FRAME VIEW**



### **C. DEVICE VIEW**

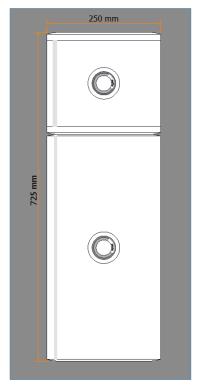
This is the default tab displayed when the window opens (see image opposite).



### **D. FACEPLATE VIEW**

### 

### E. DOOR VIEW



### 2. Popup menus

### A. GENERAL POPUP MENU

The content of this menu varies according to the type of enclosure selected in the previous module.

### > For fully modular cabinets (Ekinoxe, Atlantic, Marina, Plexo, XL<sup>3</sup> 160):

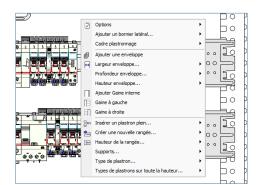
Modifications are limited to the choice of the height of the cabinet, the options specific to the model of cabinet and the movement of devices from one row to another.

3	Options		Plan pocket	
F	Width of enclosure Enclosure height		Bottom plate for cabinets Raise	Height S0mm
ø	Add an endosure	1		Height S0mm cabinet + plate
	Add a cabinet of basic communication	_ 1		



 Options Options	~	Standard handle	Key barrel no. 405
Endosure height		Closed document holder	Key barrel no. 455 Key barrel no. 1242
		Fixing Lug	Key barrel no. 2433. Double bar knockout

### > For XL<sup>3</sup> extendable enclosures (XL<sup>3</sup> 400, 800 and 4000):



### Inserting or deleting solid faceplates

The panel can be reorganised by inserting or deleting solid faceplates.

- Go to Faceplate preview mode
- Right-click on a faceplate
- Select Insert a solid faceplate in the popup menu
- Select the required height

The new faceplate is inserted above the faceplate you clicked on, shifting the other rows downwards (if this is a top to bottom installation). The rows of devices which no longer fit in the enclosure will be placed on the workbench.

To delete a faceplate, select it, then press the **Del** key on the keyboard.



XL PRO<sup>3</sup> automatically fills any unequipped space at the bottom of enclosures (or at the top, depending on the installation direction selected) with solid faceplates. There is therefore no point in trying to delete these faceplates. It is also not possible to move solid faceplates

in unequipped positions. Always use the insert/ delete option to make any modifications.

#### Creating or deleting a row

You can create a row for modular devices or for terminal blocks:

- Right-click below the row to be inserted
- Select Create a new row in the popup menu
- Select the type of row required

The new row will be inserted above the faceplate you clicked on.

To delete a row, the row must be empty and placed on the workbench. Select the row, then press the Del key on the keyboard. You will always be asked to confirm the delete operation.

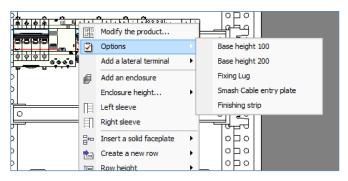


A row can also be created using a product placed on the workbench.



To move rows, go to Faceplate view and click on the faceplate. You can then move the devices, supports and faceplates. Check carefully that the faceplate is selected before moving.

### Options



Specific equipment will appear, depending on your enclosure model and its configuration.

Simply click to select or deselect options.



The options you choose affect all the enclosures in the panel.



### Enclosure displayed in side view

You can choose which enclosure you want to display in side view:

- Right-click on the chosen enclosure
- Select Enclosure displayed in side view in the popup menu

### Adding, moving and deleting an enclosure

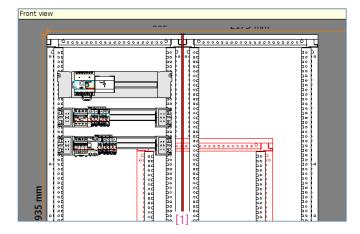
- Right-click on an enclosure
- Select Add an enclosure

An enclosure of the same type and with the same dimensions will be added. Enclosures are added to the right of the panel. Cabinets are added to the right or below, depending on the linking direction selected in the **Enclosures** module.

To move an enclosure:

- Left-click on the enclosure
- Drag it to the required location
- Release the mouse button

A red bar indicates where it will be inserted [1].



### Adding new devices

To add devices, you must return to the **Parts list** module or the **Circuit Diagram** module, and follow the procedure described earlier. Then return directly to the **Preview** module. You will see that the new products have been placed on the workbench.

They can then be installed in the panel.



This procedure should be used for modular devices only. If you add power devices, they may be incompatible with the type of enclosure already defined, resulting in an invalid configuration. Any recalculation of the panel in the Enclosures module will result in all the changes already made in Preview being lost.

### Enclosure height

The heights of all cabinets and enclosures can be changed in two ways:

- Using the corresponding option in the popup menu which gives all the available heights according to the type of enclosure
- Directly using the mouse by dragging the top or bottom of the enclosure

If the panel has several enclosures joined horizontally, they will all be changed simultaneously. However, the heights of cabinets that are joined vertically can be adjusted individually.

When the height is reduced, the rows of devices which no longer have sufficient space are automatically placed on the workbench. They must then be reinstalled in the panel manually.

Security Index (SI) of enclosures If your study includes multiple enclosures, these can have different SIs and configurations.



### Left/right sleeve

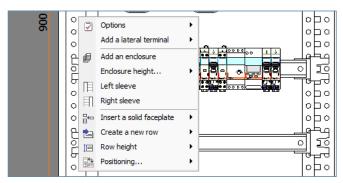
You can create or delete a sleeve to the left or right by selecting or deselecting this.



The sleeve must be empty for it to be deleted. You must delete the equipment first before performing this operation.

### B. DPX ROW POPUP MENU DEVICE VIEW/FACEPLATE VIEW

When you right-click on a DPX, an additional submenu appears which is specific to DPX rows.



### > Positioning

By default the positioning of your DPX is vertical. It can be deselected to obtain horizontal positioning or in a sleeve.

When positioning in a sleeve is selected, your row is moved by default into a left sleeve if there is one already present, otherwise the row is placed on the workbench.



You can also modify the positioning of the devices in the Arrangement module (see page 30).



If you have selected horizontal positioning, it will not be possible to place your DPX row in a sleeve. You must return to vertical positioning in order to perform this operation.

### C. MODULAR ROW POPUP MENU DEVICE VIEW/FACEPLATE VIEW

	2	Options	-	
<b>a</b>	]	Enclosure height	•	
930 123	8-	Insert a solid faceplate	•	
า กา	2	Create a new row	•	
	₽	Add an enclosure	_	
	_		_	
ē		• • • Ø		

### > Row height

The default height of modular rows is set in the **Enclosures** module (see page 48). This height can be changed for each row individually. Go to **Faceplate** preview mode, then rightclick on the row to be modified and select the required height in the **Row height** option.

### > Positioning

Only vertical positioning (selected by default) or in a sleeve is available.



When moving a modular row in a sleeve, any surplus devices (max. sleeve capacity: 9 modules) will be placed on the workbench.



If you select **Positioning > Sleeve** when you have not created any sleeves or you have only created a right sleeve, your product will be placed on the workbench.



### > Support

The default support in an  $XL^3$  400 is a metal rail. You can replace it with an adjustable aluminium rail by selecting this option.

In XL<sup>3</sup> 800 and 4000 enclosures, the support must be an adjustable aluminium rail.

### D. SLEEVES POPUP MENU DEVICE VIEW/FACEPLATE VIEW

IJ	0[ 🖉	Options		•	
E o		Cable sleeve with fa			
Þ0		Insert a solid facepla Create a new row	te	1	
E					
50					
권			opo		

#### > Insert a solid faceplate

Select the required faceplate height.

#### > Create a new row

Select the type of row: Modular, Lighting kit, Terminal block.

#### > Cable sleeve with faceplate

This is active by default and can be used to remove the faceplate from the cable sleeve to fit flush-mounted products on the sleeve doors.



To deselect this option the products must first be deleted from the sleeve.

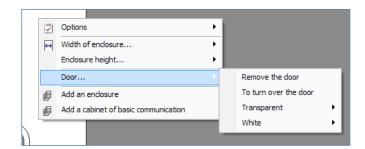
### E. DOOR VIEW POPUP MENU

### > Options

Here you will find specific options such as handles and document holders.



The locks were chosen in the **Enclosures** module. A new lock can only be chosen for the current door.



#### > Door

Depending on the IP chosen at the start of your panel, this submenu will optionally offer you a door and the various available options.



The grey banner in this module displays the selected IP. You can therefore check that it matches your requirements.

#### **F. MODIFYING PRODUCTS**

To modify your products, right-click to open the the popup menu: **Modify**. As in the **Parts list** module, the product characteristics window will appear.

### G. MOVING

#### > Moving devices

In **Devices** preview mode, devices can be moved by simply clicking and dragging. The  $\bigotimes$  sign indicates locations where you cannot place the device.

Modular devices can be freely moved along their row or from one row to another, provided there is sufficient space. This space can be temporarily freed up by moving devices to the workbench (left-hand pane of the preview window) or by creating a new row.

It is possible to move a power device, provided that a compatible position is available and that the support and faceplate are absolutely identical. It is also possible to create a new row for this device (see page 55).

If there are a number of enclosures, to move several devices in one row to another enclosure you must press the **Shift**  $\hat{U}$  key on your keyboard at the same time as you move them. If you do not do this, you will move the whole enclosure.

#### > Moving rows of devices

Using the same procedure as for moving devices, whole rows can be moved within an enclosure or from one enclosure to another.

To do this, select **Faceplates** preview mode. Click on the faceplate of the row to be moved and drag it.

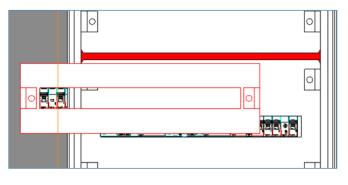


To avoid moving products accidentally, make sure you select the faceplate and not the devices below it. If there are a number of enclosures and several products are to be moved, ensure you press the Shift  $\hat{\mathbf{U}}\,$  key before you make your selection.



To send a row or a device directly to the workbench, the **Del** key can be used without any risk of accidentally deleting them. Everything shown on the workbench belongs to the panel and appears in the overall parts list.

A coloured bar indicates where the row will be inserted. The sign indicates that the row cannot be inserted at that point. To free space up temporarily, rows can be placed on the workbench. When a row is moved, the other rows of devices and the solid faceplates are readjusted automatically. When moving rows from one enclosure to another, if there is insufficient space available, the surplus row(s) are placed on the workbench.



#### > Moving to a sleeve

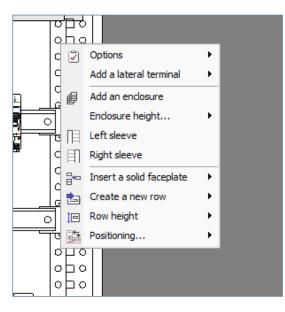
There are a number of ways for moving the row from your DPX to a sleeve:

- By creating a new sleeve (see page 59) then dragging the whole row to it
- By changing the positioning of your row to "in a sleeve"
- Using the Arrangement module (see page 30).



### H. POPUP MENUS: XL<sup>3</sup> 800 AND XL<sup>3</sup> 4000

The popup menus provide some specific options for  $XL^3\ 800$  and 4000 enclosures.



### > Type of faceplate

This enables you to select the faceplate type you want for the selected faceplate (1/4 turn or screw closing).

### > Types of faceplates on all the height

Same as before, but over the entire height of the selected enclosure.

### > Width of enclosure

By default your enclosure is configured to take 24 modules. You can however modify this to obtain more space with 36 modules (when this is permitted by the products).

This option does not appear when the enclosure contains an internal sleeve as the total width is already 36 modules (the 36 module option can also be selected in the Enclosures module).

### > Add internal sleeve

This option is only available for 24 module enclosures.

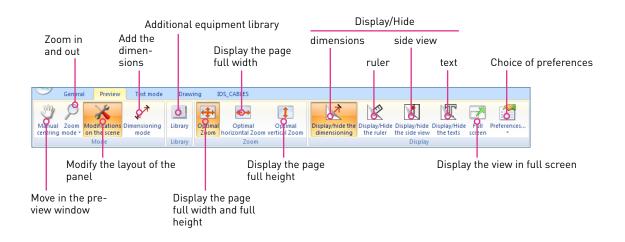
There is also a menu for reversing the internal sleeve (positioned on the right by default).

### > Internal sleeves and external sleeves

Depending on the type of enclosure, the popup menu provides the necessary options for adding or deleting an internal sleeve (inserted to the right) or external sleeves (joined to the right and/or left). Deletion is not possible when the sleeve is occupied by a busbar, a device or a side terminal block.



### 3. Preview tab



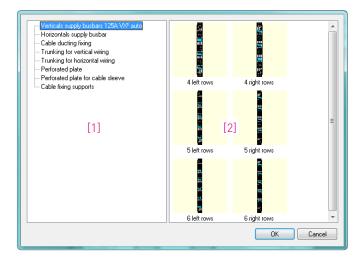
Additional equipment is available in the **Library**. This equipment varies according to the enclosure selected: Lina trunking, perforated plates, cable fixing supports, etc.

- Open the library by clicking on the icon in the ribbon bar
- Select the equipment type in pane [1]
- Select the model in pane [2]
- Confirm by clicking on  $\mathbf{OK}$

The product is temporarily placed on the workbench. To place it in the enclosure, drag it to the required location in the preview.

For Lina trunking, you must adjust the length in the same way as for busbars (see page 80).

The catalogue numbers and quantities required are automatically added to the equipment list.

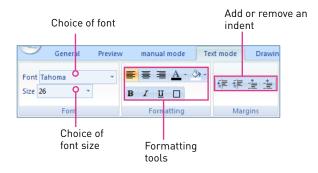




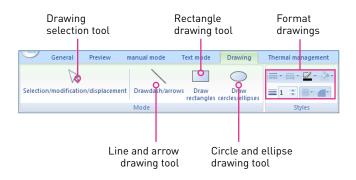
A piece of equipment that has already been positioned can be duplicated using a simple operation: right-click + "duplicate object" menu



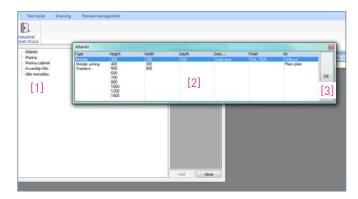
### 4. Text Mode tab



### 6. Drawing tab

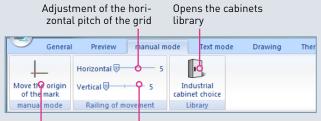


Go to the **Preview** module: a selection window opens automatically for selecting the required enclosure family [1].



- Then select the required characteristics [2]. Confirm your selections by clicking on **OK** [3].
- The empty enclosure appears in the **Device** view windows (see page 52).

### 5. Industrial Cabinets tab (present depending on XL PRO version)





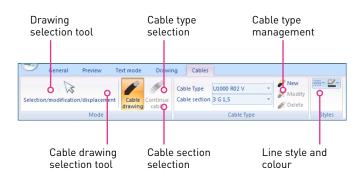
Adjustment of the vertical pitch of the grid

- This tab in the ribbon bar is only available if you have already selected an industrial cabinet in the **Enclosures** module.
- It enables you to select an empty cabinet or to create a combined unit.



Products are not positioned automatically.

### 7. The Cables tab



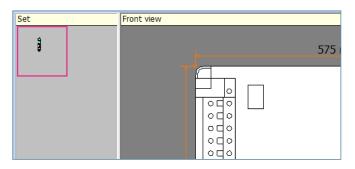


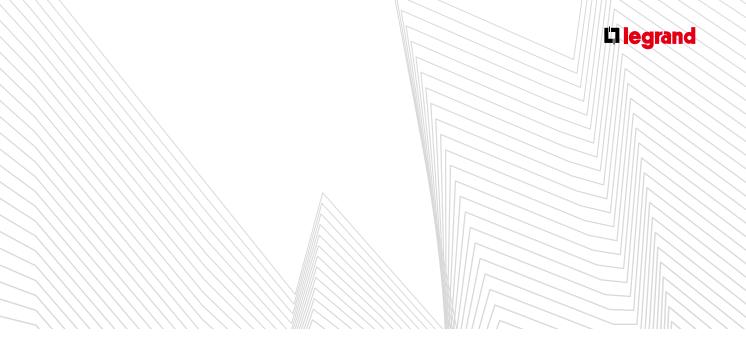
Use the **Shift** key on your keyboard for free placement of control points, then the **Esc** key to terminate the cable.

You can add products to the enclosure either by rightclicking on the enclosure and selecting Add equipment in the popup menu, or by going to the Parts list module (see page 18).

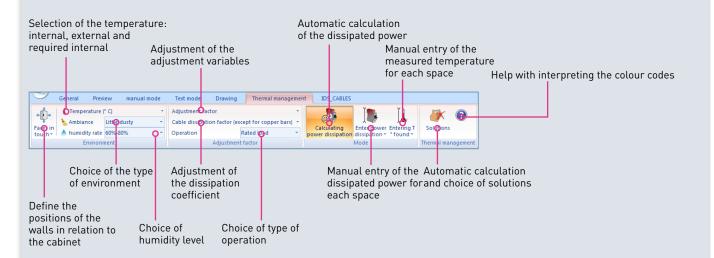


- If you use the popup menu, the selected products appear in the current view. You must then position them in the enclosure manually using your mouse.
- If you use the Parts list module to add new equipment to the enclosure, they will appear in the Workbench pane of the Preview module and you must position them in the enclosure manually using your mouse.





### 8.Thermal Management tab (present depending on XL PRO version)



- This tab in the ribbon bar is only available for industrial cabinets.
- Firstly select the sides of the enclosure that are in contact with a surface (wall, floor, ceiling, etc.)
- Left
  Right
  Backside
  Floor
  Ceiling

If necessary, adjust the adjustment variables using the cursors.

Coefficient of use	1.00
Coefficient of simultaneity	1.00
Cycle factor	1.00
Factor in switching	1.00
Expansion Factor	1.00

- If necessary, adjust the dissipation coefficient using the cursor.
- Specify the type of operation using the dropdown menu.



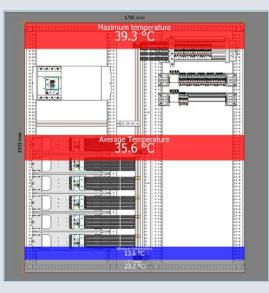
Information windows providing additional details appear automatically as the mouse is moved over the various commands in the ribbon bar.

Adjust the measured and required temperature levels using the cursors.



Then specify the type of environment and humidity level by selecting from the options in the dropdown menus.

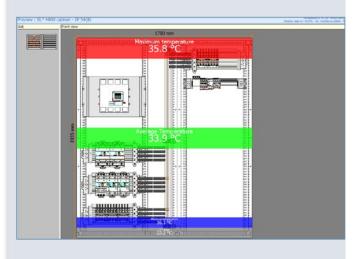
- Enter the dissipated power according to your chosen method: automatic calculation by the software according to the products installed in the cabinet, or manual entry of the value you have calculated, or simply by entering the measured temperature.
- All the data entered appears in the view. The colour code indicates any risks of excessive temperature rise or condensation.



Once all these parameters have been established, the Solutions dropdown menu automatically offers the most suitable thermal management products.

Enter power dissipation • * found •	Solut	tions			
Mode TI	Volu	ime nº 1			
		Heating	•	Dimensions (h, w, d): 1935x1700x535 Modular reserve : 45.0% - No. modules available : 9.0	Stu
		Exchanger	•		Pro
m		Fans	•		•
		Air conditione	r 🕨	Vertical air conditioner 230V 380/240W => tmoy 35.0 °C / tmax 35.0	°C
perature	0.01		100	Vertical air conditioner 230V 380/240W => tmoy 35.0 °C / tmax 35.0	°C
	H		n É	Vertical air conditioner 230V 640/470W => tmoy 35.0 °C / tmax 35.0	°C
	nar			Vertical air conditioner 230V 640/470W => tmoy 35.0 °C / tmax 35.0	°C
	è è i		0 9 0 0	Vertical air conditioner 230V 820/680W => tmoy 35.0 °C / tmax 35.0	°C

- The selected products appear on the workbench.
- The view is automatically updated and the coloured banner indicating the average temperature changes to green.

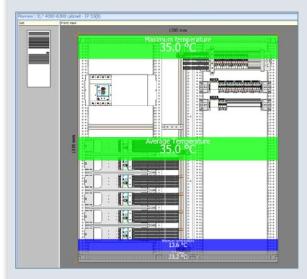


To lower the average temperature at the top of the cabinet, you must install an air circulation kit. XL PRO<sup>3</sup> automatically offers the appropriate product(s) for the enclosure.

tions		
ime nº 1		
Heating	+	Dimensions (h, w, d): 1935x1700x3 Modular reserve : 45.0% - No. modules available :
Exchanger	•	
Fans	•	
Air condition	ner 🕨 📥 👘	
	Exchanger Fans	me n° 1 Heating Exchanger



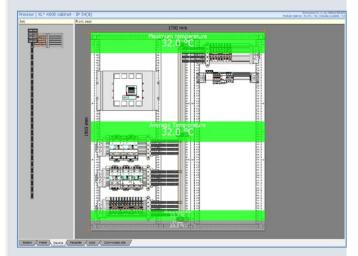
- The selected air circulation kit appears on the workbench.
- The view is automatically updated and the coloured banner indicating the maximum temperature at the top of the cabinet changes to green.



To avoid condensation at the bottom of the cabinet the temperature must be kept above the dewpoint. To do this XL PRO<sup>3</sup> automatically offers heating resistors suitable for the enclosure.

Solutions Volume n° 1		
Heating	Heating resistor 120/240V 20W (x24)=> tmin 23.3 °C	935x1700x535 available : 9.0
	Heating resistor 120/240V 50W (x10)=> tmin 23.8 °C	
	Heating resistor 120/240V 100W (x5)=> tmin 23.8 °C	
	Heating resistor 120/240V 150W (x4)=> tmin 26.2 °C	
<u>, , , , , , , , , , , , , , , , , , , </u>	Forced air heating resistor 230V150W (x4)=> tmin 26.2 $^\circ\text{C}$	
	Forced air heating resistor 230V-350W (x2)=> tmin 28.5 $^\circ \text{C}$	
	Heating resistor 120/240V 20W (x24)=> tmin 23.3 °C	
	Heating resistor 120/240V 50W (x10)=> tmin 23.8 °C	
	Heating resistor 120/240V 100W (x5)=> tmin 23.8 °C	
	Heating resistor 120/240V 150W (x4)=> tmin 26.2 °C	
	Forced air heating resistor 230V150W (x4)=> tmin 26.2 $^\circ\text{C}$	
40 ····	Forced air heating resistor 230V-350W (x2)=> tmin 28.5 °C	
	po p	

- Select the required device. It then appears on the workbench.
- The view is automatically updated and the coloured banner indicating the minimum temperature at the bottom of the cabinet changes to green. It is now above the dewpoint temperature.



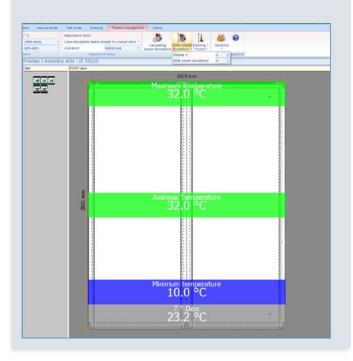
You can now position the products waiting on the workbench in the cabinet.

ŏ



If your cabinet has several spaces, you can add separation and insulation dividers (right-click on the cabinet, select **Options** then **Separation and insulation dividers**) to handle the thermal management of each space individually.

	<u>ة:</u>			
:i 🖸	Options	То	turn over the door	- 8
:g	Enclosure displayed from side view	Ac	cessory	- <b>-</b> -
:ğ	Add equipment	Plin	ith	- • I
:	Add an enclosure	Sid	e panel	- <b>-</b> -
:ğ	Modify the panel	As	sembly kit	- <b>-</b> -
.j	<u>E:</u>	Par	tition and isolation	





### A Principle

- The entire distribution system is managed from the arrangement table. XL PRO<sup>3</sup> automatically detects the product tree structure and the areas in which distribution products will therefore be recommended.
- These areas are represented by cross-hatched coloured bars.

	Level 1	1 Bis	Level 2	2 Bis	Level 3 3 I
1	MCCB DPX3250 25kA 4P 250A D1 Vertical L123				
2					DX3 C 4P 32A 300mA Type AC D2 Vertical L123
3					
4					MCCB DPX3250 25kA 4P 250A D3 Vertical L123
5					
6					

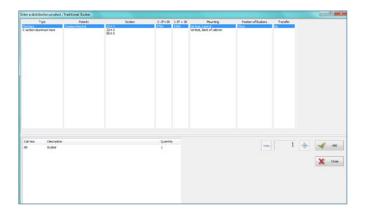
Click on one of these cross-hatched areas: the distribution solutions corresponding to the products attached to the area appear at the bottom of the screen in a dropdown menu.

	and the second se	Calculation of phases	Optimized supply busiters
	5-0	III Abroad Posses	Optimized avaptly lowepers -
		Contract Phases	Traditional supply busbar
Distribution	A NOVEMBER OF	In. Exercise caller	Treditional distribution block
	ALL CONTRACTOR OF THE REAL	E. See close fair for even of the period	192
		a manual made	Owgs

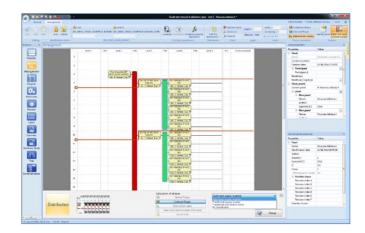
Select the solution you require then click on **Add**.



The distribution solutions provided automatically by the software can vary according to the XL PRO version. Depending on the solution chosen, you may have to select various options. For example, if you have selected a traditional distribution block.

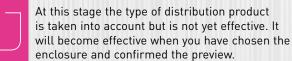


When you have confirmed your chosen distribution product, the cross-hatched bar becomes a solid bar.



You can change your chosen distribution product at any time by clicking on the <u>Modify</u> button in the Distribution display area.

# STRIBUTIC



### enclosure and confirmed the preview.

### B Distribution methods

#### 1. 4-pole distribution up to 63 A



In the various 4-pole distribution systems, the numbering of the phases on all the single phase outputs must be managed.

By default, if there is no specific distribution product, XL PRO<sup>3</sup> balances the phases according to the ratings.

#### Example:

2.0%	Level 3	3 Bit	Level 4	40	286	Niveau 3	3.6%	Nireau 4
-	DXP C 4P 46A 300mA Type AC D2 Vertical L123	16				DX7 C 4P 40A 300mA Type AC	5	
	CDS   MARKA 1153.		CHIX7-600,4LSEA P+N C 31A			02 Verscal 1223	200	DNR #E00/4.SRA P+N C 32A
		- 88	D2.1 Vertical TL1 II				88	D2.5 Vertical LS
			P+N C 35A	-			1	P+N C IOA
			CHIX? 4500,4LSEA P+N C 35A		*****		38	DNR7 4606/458A P+N C 10A
		- 88	DRXP 400/45kA					D2.3 I Vertical TL3 ENK? 4506,44,5kA
			D2.4 Vertical L3 8 D2.4 Vertical L3 8					D2.4 Vertical L2 DND 4500/435A
			P+N C 33A D2.5 Vertical L2 #				ava	P+N C 10A D2.5 Vertical L3
			DNIC 400/458.A P+N C 38A					P+N C 10A
			DNX 4600/4.5kA P+N C 33A					D2.6 Vertical L2 DNR2 4500/4,5kA P+N C 10A
			027 Vertical L1 10 01007 4000/4/SkA					DZ7 Vencal L3 DHE7-600/4,55A
			P+N C 33A 02.8 Vertical 12 8 DNX1-4500.4.55A				No.	DPINIC BOA
			P+N C 38A D2.9   Vertical   L3 =					P+N C IOA D2.9 Vertical L3
			DNX7 4500/4,5kA P+N C 35A D2.35   Vertical   L1 #	1				DNK1 4500/4,5kA P+N C 10A D2.50 United L1
			DHIXT-4500/4,55.A P+N C BIA					DNK7 4506/4,5kA P+N C 50A
			0102-31 Vertical 12 II 01027-4500/4,55.A P+N C 33A				100	D2.11 Vertical L2 DN07 4500/4.5kA
			P+N C 35A D2-32 Vertical L3	È			6	P+N C IOA D2.12 Vertical LD

The various distribution solutions depend on the device at the head of the group and the outgoing devices.

- A. EXAMPLE: IF THE MAIN DEVICE IS A 4P 32 A DX<sup>3</sup> RCD AND THE OUTGOING DEVICES ARE PH+N DX3:
  - > Selection of an optimised supply busbar with alternate phases

I12         C2         Vertical         I2         I           A         I13         I        <	ICI Vertical III	
ion of phases	Traditional distribution block	•
Alterned Phases	Traditional distribution block	_
Combined Phases	Optimized busbars Traditional Busbar	
Balanced per caliber	No distribution	
ame choice than the remain of the panel	Add	
manual mode		

- After confirming this selection the connections of the devices are modified automatically. The main device changes to Screw/Auto and the outgoing devices to Auto/ Auto or Auto/Screw.
- If you have selected DX<sup>3</sup> Ph+N 4500/4.5 kA and you do not want to use Auto connections at the outputs of the outgoing devices, click first on the `⊞⊕ Prefer the screw terminal output icon in the ribbon bar.



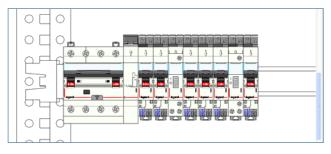
- It is possible to choose the correct connections directly in the Parts list. The type of distribution can then be chosen more quickly.
- For your distribution to be effective you must select the enclosure then open the **Preview** module.
- After validation, each system is shown in a different colour:
- Blue: HX<sup>3</sup> 80/125 A, Plug,
- Green: Distribution of 250/400A rows,
- Purple: HX<sup>3</sup> 125 auto,
- Red: 63 A connection device



To optimize the determination, you can rearrange the products thanks to color codes.



Phase numbering is automatically updated in the Arrangement module and is printed in red.



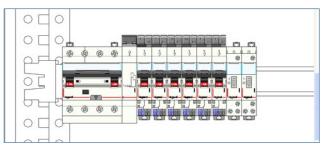
Remote control switch T1 takes the place of phase 3 below the supply busbar, therefore the 3rd outgoing device changes to L1.

-	DNX <sup>3</sup> 4500/4,5kA P+N ⊂ 10A	
	D2.1 Vertical L1	
	DNX3 4500/4,5kA P+N C 10A	Télé-1P-16A
-	D2.2 Vertical L2 DNX3 4500/4,5kA	T1 Vertical L2
	- P+N ⊂ 10A D2.3 Vertical L1	

It is however possible not to keep the busbar-compatible devices below the supply busbars (remote control switches, contactors, etc.). To do this, right-click on T1.

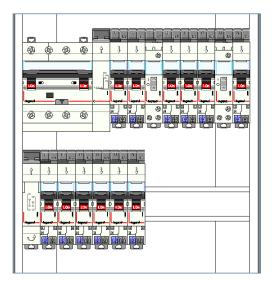
	10kA	9
Vertical L1		
000/10kA P+N	10kA	a
Vertical 12 10		
DOD 108A P+N	Pulses	······
C 16A	opiatchrelay an era stika	
Vertical 1.3 II	TS Vert Modify	
000/10kA P+N	Puls X Delete	
C 16A	T2 Vert C Break line	
2000 10k A P+N	A A A A A A A A A A A A A A A A A A A	
C 16A	oplatchreian Fitting Vertical	
Vertical 12 #	T3 Vert Calculate terminals for this pr	aduct
2000/10kA P+N		
C 16A	Phases	,
Vertical 13	Do not install this product on	: Optimized supply busbars, alternating phases
	- Upstream Circuit	,
	Modify the identification	
	4004	
	Lock the identification	
	X Cut	
	Past Past	
	5- Properties	
	D	

The products are at the end of the row and the phases are moved up in the Arrangement module.





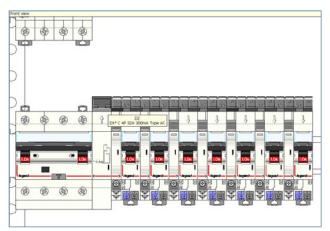
If there is a large number of outgoing devices which cannot be mounted on a single row, XL PRO<sup>3</sup> automatically incorporates a power supply on the following row(s).

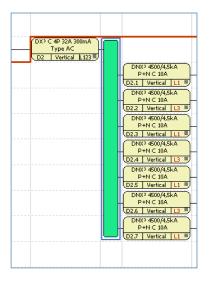


Products that are not busbar-compatible (do not permit the insertion of the supply busbar) are sent automatically to the end of the row.

#### > Special cases:

1: If the outgoing devices are all DX<sup>3</sup> Ph+N with 1 auxiliary contact, the optimised supply busbar system with alternate phases does not permit phase no. 2.





It is therefore necessary to add a spacing unit.

In the **Parts list** module, **Cabling products** family, select **Modular accessories** then the 0.5 module **Spacing unit** and insert it between 2 outgoing devices.



2: If the product at the head of the group does not have an Auto output or if another measurement type product is placed below the head of the group, XL PRO<sup>3</sup> does not give the "optimised supply busbar with alternate phases" option.

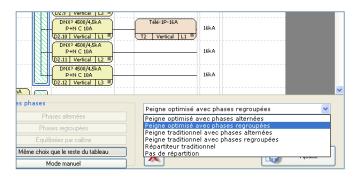
It is possible to force the option by adding a **63 A maximum** power supply module.

In the **Parts list** module, **Cabling products** family, select a **4P auto power supply module**.

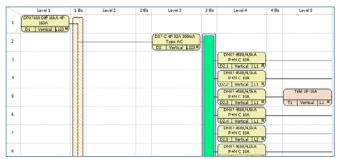
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Carried	Trans I I In	Ŷ			11					Hugoult	10.C. 16A	Fredult de gesken
CILL	Torso i Libe MA Veter 1015	Thene i	194		230	- 103 103 1 1646 1	-10	Hotor I		Ho sou b		Produits de portes
* (100 million 100	Total I III	Phone 2	194	Nese)	230	-123 (23) 1	-10	Howi Devenassa Hercia		Harsou I.	364	Produte de portes
	Total I III	Thene i	194	Nese)	230	- 103 103 1 1646 1	-10	H10005 DB7400255A 944C04 D5134640111 D51440255A 944C04	_	Ho Sou E	56.A	Produits do gentum
	Total I III	Thene i	194	Nese)	230	- 103 103 1 1646 1	-10	Nonvi I Dia Yatta Alfak Patric Da Dia Yatta Alfak Patric Da Dia Yatta Da Dia Yatta Da		Hiriso L	56A 56A 36A	Proble de polos
· (************************************	Total I III	Thene i	194	Nese)	230	- 103 103 1 1646 1	••	Hope 5 DBT 401255A FebC (M TO TANKAT LU DBT 40275A FebC (M DBT 40275A FebC (M DBT 40275A FebC 40 DBT 40275A FebC 40 DBT 40275A FebC 40 DBT 40275A FebC 40		Hinau k	34A 34A 34A 34A	Produce de portem
· .	Total I III	Thene i	194	Nese)	230	- 103 103 1 1646 1	••	Nonui Dia Yang Aria Julio Cali Dia Yang Aria Julio Cali Dia Cali Lukari Liu Dia Cali Lukari Liu Persona Cali Dia Cali Lukari Liu Dia Cali Lukari Liu Dia Cali Lukari Liu Dia Cali Lukari Liu Dia Cali Lukari Liu Persona Cali Dia Cali Lukari Liu Persona Cali Dia Cali Lukari Liu Persona Cali Dia Cali Lukari Liu Persona Cali		Hirosoy &	34A 34A 34A 34A 34A 34A	Prokis frysłan
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t Carra	Total I III	Thene i	194	Nese)	230	- 103 103 1 1646 1	•••	Heavi Del Col XSA Fel-C (A Col Sector 10) Col Sector 100 Fel-C (A Col Sector 10) Fel-C (A Del Col XSA Fel-C (A Del Sector 10) Fel-C (A Del Sector 10)		Hinana &	10A 56A - 36A - 36A - 56A	Padat ik piter

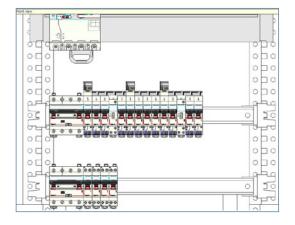


#### B. SELECTING AN OPTIMISED SUPPLY BUSBAR WITH GROUPED PHASES



- After confirming this selection the connections of the devices are modified automatically. The main device stays as Screw/Screw and the outgoing devices change to Auto/ Auto or Auto/Screw.
- XL PRO<sup>3</sup> has automatically grouped the phases together.





#### The phase assignment can be changed.

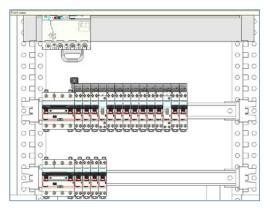
Level 1	186	Level 2	2.8%	Level 3	3.85	Level 4	4.85	Level 5	8.C.
 KO DAF SALA 40 166A Vertical 1,123									16k.A
				DXP C 4P 32A 300mA Type AC D2 Vertical 1123					16k.A.
						DHX2 4500/4.5kA P+N C 10A 02.1 Vertical 1.1 1			_ 16kA
						DNX7-4500/4,5kA P+N C 10A D2.2 Vertical LL III			IGRA
						DNK7 4500/4.5kA P+N C 10A D2.3   Vertical   L1 #		Tele-ID-IGA	IGAA
						DNKP 4500/4,5kA P+N C 10A D2.4   Verkal   L1			_ 16kA
						DHK2 4500/4,5kA P+N C 10A (02.5 Vertical L2 8			_ 16kA
						DNK2 4500/4.58.8 P+N C 10A D2.6 Vertical L	Nodifi	mer	16k.A.
						DNCF-600/458.A P+N C 10A D2.7   Vertical   L		ge Vertical	. 16k.A.
						DNK2 4500/4.55.4	_	en Amort 🕨	v 12
						DN0(3 4600/4,5kA )- P+N C 10A D2:9 Vertical L (b)		s en Aval 🔹	L3
						DNX1-4500/435-A P+N-C 10A Q2.10 Vertical L		aller le repérage	. 16kA
						DPOCP 4500/4.5k.A P+N C 10A	Copier		. 16kA
						Centra distalia Sia a	Propri	ítés	16k.A.

But care must be taken to ensure the phases are still grouped together.

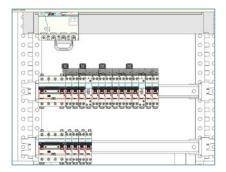
#### C. SELECTING A TRADITIONAL SUPPLY BUSBAR WITH ALTERNATE PHASES

	P+N C 10A D2.12 Vertical L3	16kA
DX2 ⊂ 4P 32A 30n	A	
Calcul d	es phases	Peigne traditionnel avec phases alternées
	Phases alternées	Peigne optimisé avec phases alternées
	Phases regroupées	Peigne optimisé avec phases regroupées Peigne traditionnel avec phases alternées
llin.	Equilibrées par calibre	Peigne traditionnel avec phases regroupées
E	Même choix que le reste du tableau	Répartiteur traditionnel Pas de répartition
	Mode manuel	

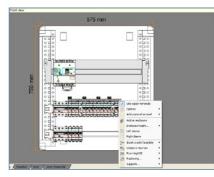
The connections of the devices are Screw/Screw.



The incoming terminals are added automatically on the preview. They appear superimposed on one another. They must therefore be arranged manually.



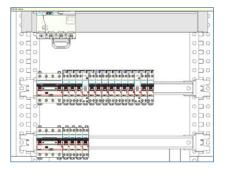
It is also possible to delete them by right-clicking on the supply busbar then deselecting the Use supply terminals option.



After switching to the Enclosure module, the phase numbering is updated automatically in the Arrangement module.

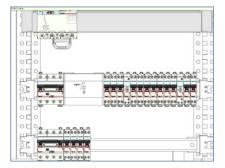


D. SELECTING A TRADITIONAL SUPPLY BUSBAR WITH GROUPED PHASES



- Select the supply busbar in the Arrangement module then click on Confirm.
- Select the **Enclosure** then go to **Preview** for your selection to be effective.

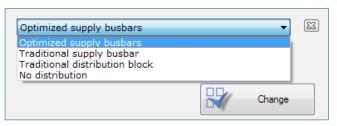
#### E. SELECTING A TRADITIONAL DISTRIBUTION BLOCK



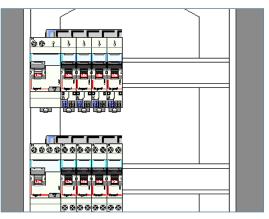
- Select Traditional distribution block in the Distribution dropdown menu in the Arrangement module.
- A selection window opens automatically in which you can select the required characteristics. Click on Add then select the Enclosure and go to Preview for your selection to be effective.



#### 2. Single phase distribution up to 63 A



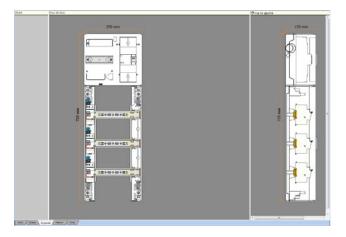
Select the required distribution in the **Distribution** dropdown menu (supply busbar, traditional distribution block, etc.) in the Arrangement module then click on **Confirm**.



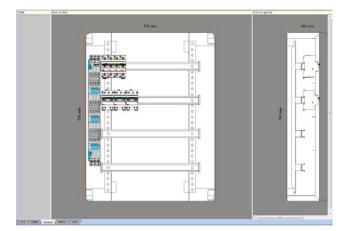
Select the **Enclosure** then go to **Preview** for your selection to be effective.

#### 3. Vertical distribution

Select the desired distribution in the Distribution dropdown menu (63A mono vertical comb, five-pole comb, etc.) in the Arrangement module; then, click Add.



For your distribution to be effective you must select the enclosure then open the **Preview** module



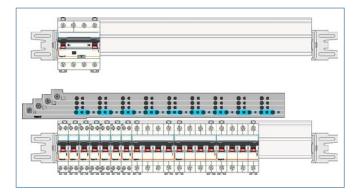


#### 4. Horizontal distribution

125 plug-in optimised distribution block

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125 auto optimised distribution block



■ You can choose the distributor length by clicking directly on it, then selecting full row or ½ row.

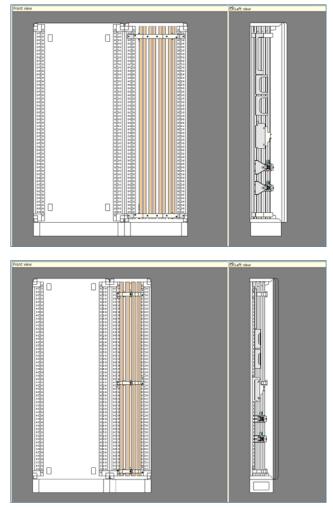
### **C** Power distribution

#### 1. Busbars

A. ALUMINIUM C-SECTION BUSBARS

#### > Side vertical - flat

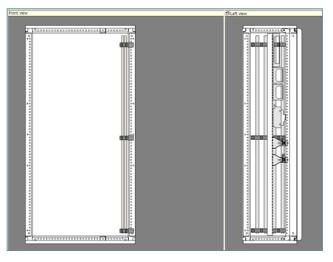
For mounting in XL<sup>3</sup> 400 and XL<sup>3</sup> 800 external sleeve





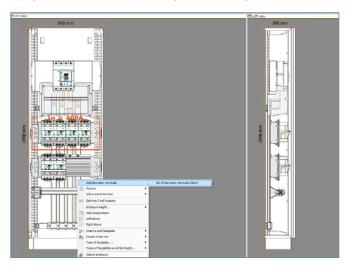
#### > Side vertical – aligned edgewise

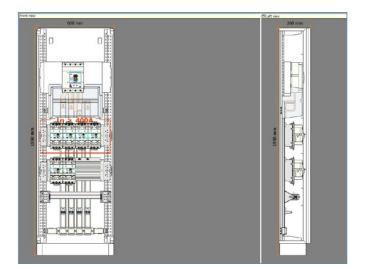
For mounting in XL<sup>3</sup>4000 internal/external cable sleeve

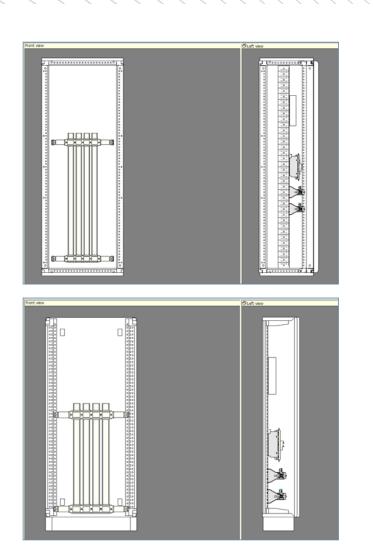


#### > Vertical at the back of the enclosure - flat

Can be mounted on the back of XL^3 400/800 or between the uprights in XL^3 4000, depending on the rating.



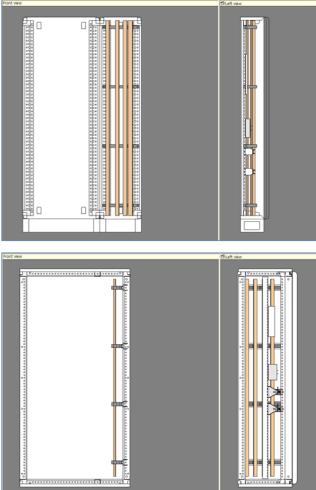




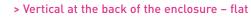
#### **B. FLAT COPPER BARS**

> Side vertical – tilted

For mounting in  $XL^3\,400$  external sleeve and  $XL^3\,800/4000$  internal/external sleeve.



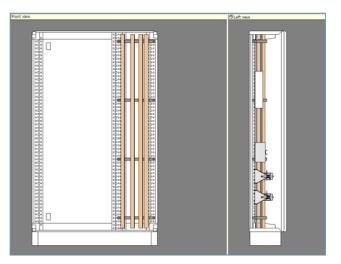




#### Max. 400 A

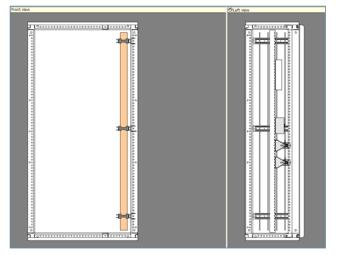
For fixing on XL<sup>3</sup> 400/800/4000 uprights.

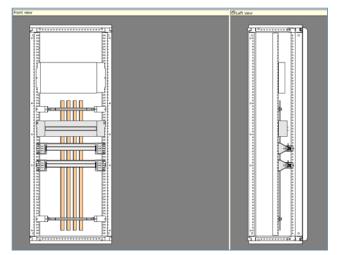




#### > Side vertical – aligned edgewise

For mounting in XL<sup>3</sup> 4000 internal or external sleeve.

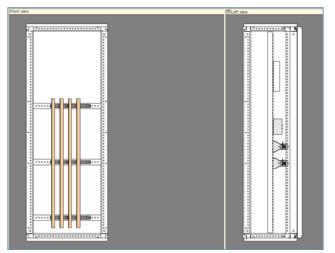


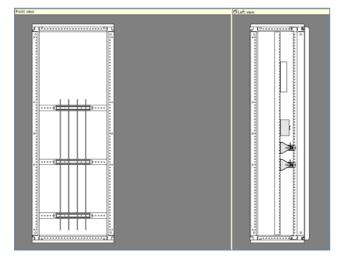


#### > Side vertical – tilted edgewise

#### Max. 800 A

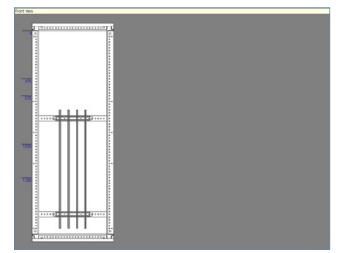
For mounting in the back of XL<sup>3</sup> 4000 enclosures.





#### > Side vertical - aligned edgewise

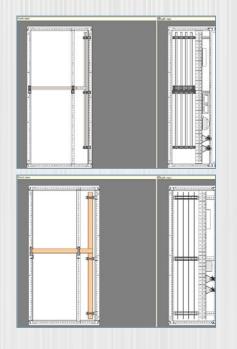
#### Max. 1600 A For mounting in the back of XL<sup>3</sup> 4000 enclosures.



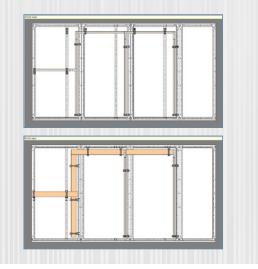




Aluminium and copper side vertical/aligned edgewise busbars can take a transfer busbar.



They adapt automatically to the number of cells.

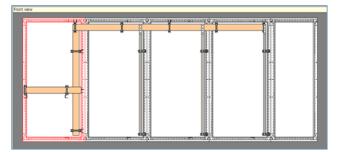




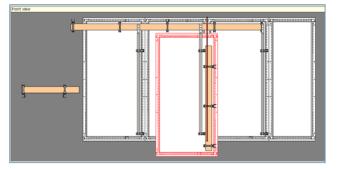
Cabling products must only be created and modified after the enclosure has been fully defined, as XL PRO<sup>3</sup> resets your cabling products each time the enclosures are modified.

#### 2. Modifying busbars

- XL3 enclosures allow you to mount your cabling products as you wish in your panel.
- Busbars can be adapted in the preview, for example : when the main device is located at the centre of the panel:
  - Select the enclosure in which the main device is located. The enclosure becomes red.

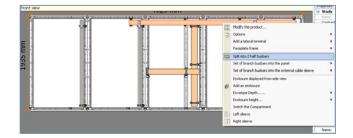


- Drag the enclosure between two others. A highlight appears at the insertion point.

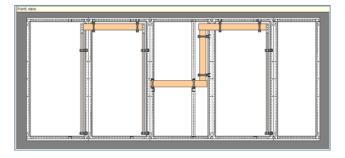


#### A. SPLITTING BUSBARS

- Busbars can be split in two using the relevant option in the popup menu. Each part can then be moved and adjusted independently of the other, which makes it possible, for example, to extend a main vertical busbar into an adjacent cabinet, or to change the position of a horizontal busbar between two enclosures (in the latter case, connect the two parts with a branch busbar). Once in place, each busbar can be split again.
- By splitting your busbar and adding a sleeve (see page 57) you can incorporate your split busbar.
- Likewise, to delete the busbar, select it. It becomes red. Then press the **Del** key on your keyboard: the busbar is placed on the workbench. If you want to delete it altogether, re-select it on the workbench and press **Del** again.



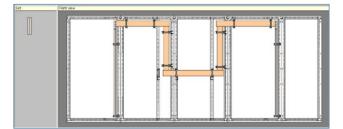
- B. MOVING AND ADJUSTING THE LENGTH OF BUSBARS
- To adjust busbars, go to Frame or Device preview mode. The length of bars is changed by dragging their ends with the mouse. XL PRO<sup>3</sup> then recalculates the length and defines the number of supports required. The spacing between the supports is calculated automatically according to the peak lsc.





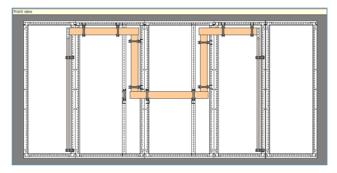
Each time an adjustment is made, the supports are recalculated automatically. Their distance depends on the IK calculated based on the presumed Isc and the device supplying the busbar.

Busbars can be adjusted in any configuration.



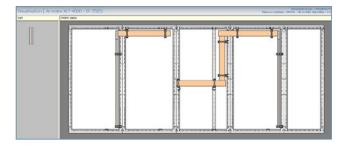


An aluminium branch busbar can be moved behind the functional upright. But care must be taken to ensure it is accessible for connection.



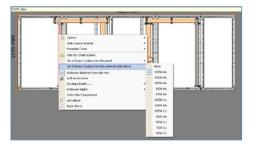
#### C. DELETING A BUSBAR

A branch busbar can be deleted by clicking + **Del** key on your keyboard.



#### D. MODIFYING THE TYPE AND CROSS-SECTION OF A BUSBAR

The metal (aluminium/copper) of branch busbars can be changed.



#### 3. Optimised busbars

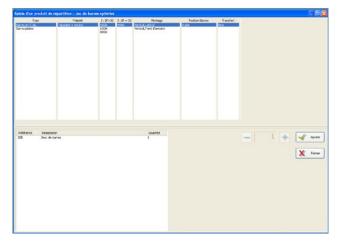
- When an optimised busbar is chosen, XL PRO<sup>3</sup> automatically gives all the necessary connection systems for connecting products to the busbar.
- The connection systems are generally given for aluminium bars.

#### A. EXAMPLE 1

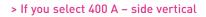
The following can be found behind a  $\leq$  400 A main device, by clicking on the distribution area in the arrangement table:

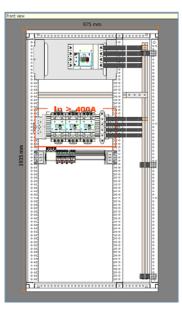
- Optimised busbars
- Traditional busbars
- Traditional distribution blocks
- No distribution

Select an optimised busbar, define its characteristics in the selection window, then click on **Add**.



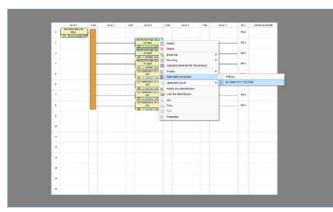
By default the software gives "Aluminium C-section busbars" so that all the available connection systems can be used.

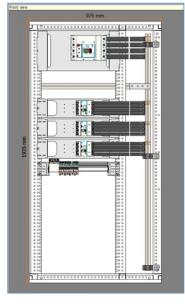




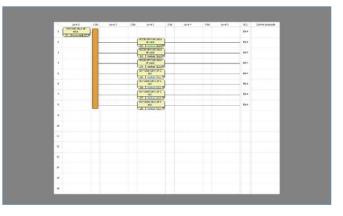
- DPX are mounted horizontally and connected to the busbars by connection kits.
- 1.5 module/pole DX<sup>3</sup> are mounted on HX<sup>3</sup> 250/400 distribution blocks
- 1 module/pole DX<sup>3</sup> are mounted on HX<sup>3</sup> 125 distribution blocks

DPX<sup>3</sup> can be mounted on HX<sup>3</sup> 250/400 distribution blocks.





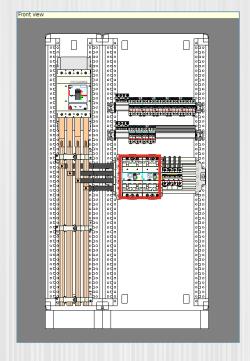
When products are connected via a connection base (use on  $HX^3$  250/400 or  $HX^3$  125) the mounting is displayed in green on the arrangement.





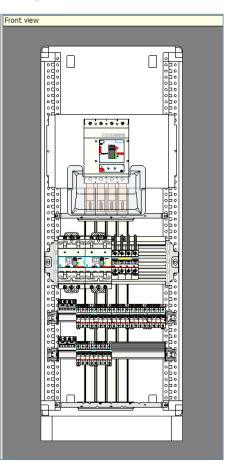
It is not necessary to indicate the horizontal or vertical mounting of products. XL PRO<sup>3</sup> automatically gives the correct mounting according to the type of connection used.

However, it is possible to force mounting of the main device in a sleeve. In this case, the rows must be repositioned manually so that the connection kits are aligned with the bars. The modular rows are moved up.



Another alert appears if the ln value of the devices on the distributor is higher than the distributor's lmax value.

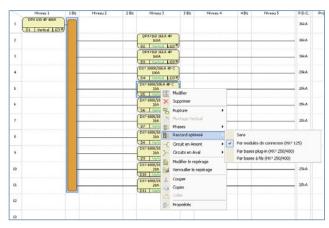
> If you choose 400 A - vertical at back of enclosure



In this configuration the main device is mounted vertically.

- 1.5 module/pole DPX³ and DX³ are mounted on  $HX^3\ 250/400\ distribution\ blocks$
- 1 module/pole DX<sup>3</sup> are mounted on HX<sup>3</sup> 125 distribution blocks

It is possible to move 1 module/pole DX<sup>3</sup> from the HX<sup>3</sup> 125 distribution block to the HX<sup>3</sup> 250/400 distribution block. The choice must be made between wired base or plug-in base as appropriate.

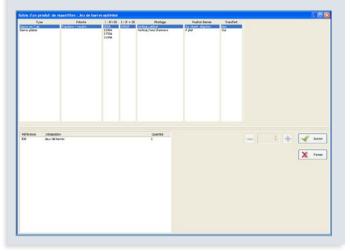


#### **B. EXAMPLE 2**

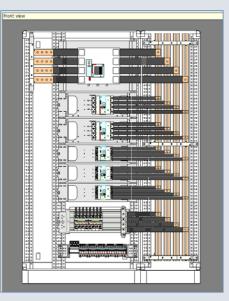
The following can be found behind a  $\leq$  800 A main device, by clicking on the distribution area in the arrangement table:

- Optimised busbars - Traditional busbars
- No distribution

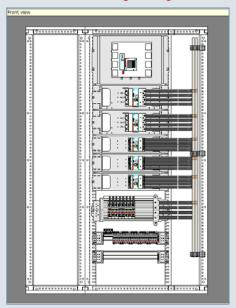
Select an optimised busbar, define its characteristics in the selection window, then click on **Add**.



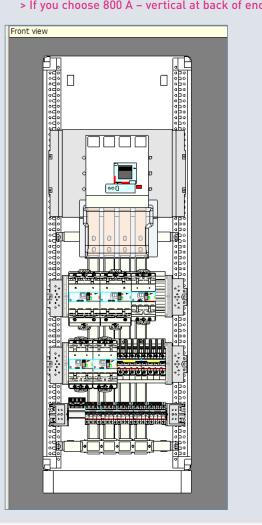
> If you select 800 A - side vertical - flat



> If you select 800 A side vertical - aligned edgewise







#### > If you choose 800 A - vertical at back of enclosure - flat

#### C. EXAMPLE 3

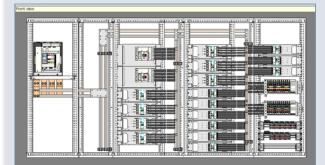
The following can be found behind a ≤ 3200 A main device, by clicking on the distribution area in the arrangement table: - Traditional busbars

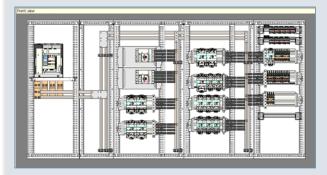
- No distribution

Select an optimised busbar, define its characteristics in the selection window, then click on **Add**.

#### > If you select 2500 A side vertical - aligned edgewise with transfer

The positions of the rows and bar supports must be adjusted manually in all configurations so that the kits can always connect together.







### **D** Forms

The form level is selected in the **Properties** of the current panel.

Current panel properties		ą,
Properties	Value	
Panel		*
Name:	Répartition puissanc	
Modification date:	02/04/2012 15:41:37	
Author:		
Quantity :	1	
Expected ICS	10kA	
IS	111	
Forms	2 .	Ξ
Revision index		
Revision index A		
Revision index B		
Revision index C		
Revision index D		
Revision index E		
Revision index F		
Number of plan		
		Ŧ
Forms		

- A busbar must be chosen.
- XL PRO<sup>3</sup> automatically calculates the partitions according to the types of product and the positions of the bars.



All partitions are shown in yellow.

### E Increased Safety (IS) (depending on the XL PRO version)

The IS level is selected in the **Properties** index of the current panel.

Study properties :		ų,
Properties	Value	
Study		-
Name:	rtech	
Contract number:		
Creation date:	06/03/2012 09:00:53	=
"Without pannel" m	No	
Participant	+	0
Participant 1		
Beneficiary Bénéficia		
Beneficiary logotype		
Study panels	111	
Current panel	112 113	
Pannel	113	
New panel	122	
Name:	123	
Author:	131 132	
Expected ICS	133	
New panel	211	Π.
	212	ŀ
	215	
	221 222	
	~~~~	

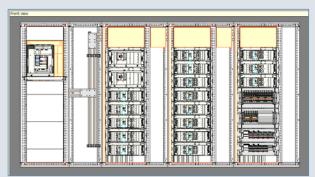
- Depending on the selected level, XL PRO<sup>3</sup> goes to IS 223, 233 or 333. When an IS level is chosen, a separation form level is also selected:
  - IS 223  $\rightarrow$  form 3
  - IS 233  $\rightarrow$  form 3 or 4
  - IS 333  $\rightarrow$  form 3 or 4
- In the arrangement table, all products compatible with the IS chassis are shown outlined in green.

 DPX 630 4P 400A
 D2 Vertical L123
DPX 630 4P 400A
 D3 Vertical L123
 DPX3250 25kA 4P 250A
D4 Vertical L123

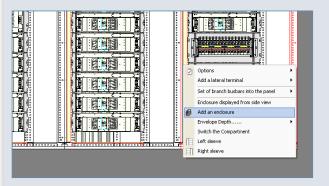


An optimised busbar must be chosen. Then calculate the enclosure and go to the Preview module. The assembly is determined automatically.

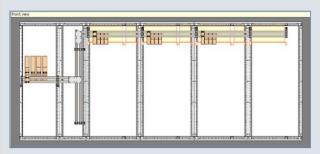
1. IS 223 - form 3



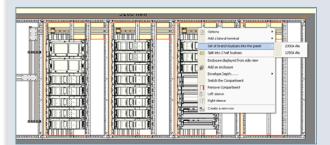
An IS chassis can be added for the necessary reserve. To do this, first add an enclosure.



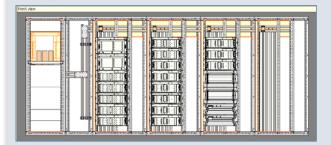
Extend the busbar into the added enclosure.



Add a busbar in the added enclosure.

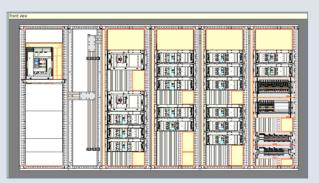


The IS chassis is created.



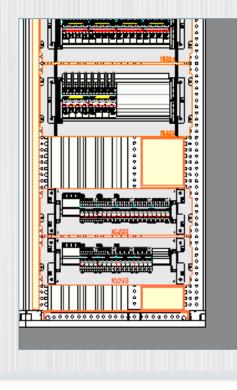
By default, DPX<sup>3</sup> are mounted on a horizontal base. As for the optimised busbar, it is possible to mount then on HX<sup>3</sup> 400 distribution blocks (IS 223 only)

#### 2. IS 233 - form 3

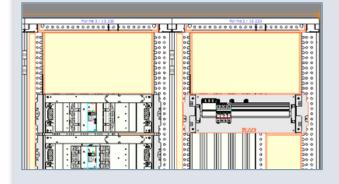




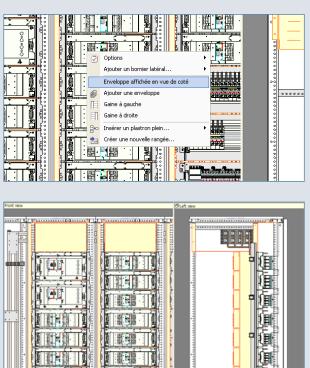
HX<sup>3</sup> 400 and HX<sup>3</sup> 125 distribution blocks are only IS 223. They are not prohibited on the IS 233 chassis, but the IS level is marked.



The form level and IS are indicated on each column of the main LV distribution board.



On the IS chassis, the difference between forms 3 and 4 can be seen when viewed from the side.



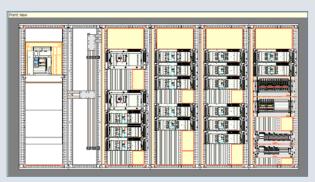
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#### 3. IS 333



- As for IS 233, the HX<sup>3</sup> 400 and HX<sup>3</sup> 125 distribution blocks remain IS 223.
- To add the reserve that is essential for the principles of IS, as shown previously, if necessary add an IS chassis, then move the rows to make space, and then insert 200 or 300 mm high solid faceplates.



### LABELS MODULE

XL PRO<sup>3</sup> can be used to create labels for all devices that have a label-holder and for the strips in the table.

#### 1. Interface

Labels																					
Strip label																					
						արակուրու	հուստեստե	սիստոսիսո	ասիսոտ	սիարակ	առահո	ռահանո	սիարահ	արաիայ	արարա	վույրով	իտիակա	րահարա	իանակո	սահարո	<u>^</u>
[4]	Nouveau ta	ableau 4 - Ei					DE	DC									-				
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						Chb	enuce	Jejour	Cinc	<u></u>							-				
	Nouveau ti	ableau 4 - Ei I2		D8	D9	D10	D11	D12	D13	3							-				
				۲	۲	۲		- 555													
				PC	PC Chb	PC	PC	Radiateur	Radiat	eur											
	ļ		Cu	uisine	PC CIID	Séjour	Radio	Chb	Séjou	ur											
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		I3	3		D14	D15	D16	D17	-												
					٠	۲		***													
					Chauffe-eau	Machine	Cuiciniàra	Concélateur													*
Product label																					
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[2]	D15	D16	D17														-1	-			
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	:																			;	

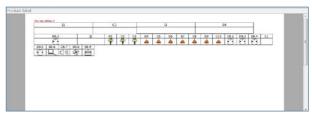
- These two types of label appear in separate dedicated windows: Strip Label window [1] and Product Label window [2], that you can display or hide using the icons in the ribbon bar (Labels tab, see page 92).
- The labels are in the form of printable sheets.



#### 2. Label templates

In area [2] all products that have a label-holder automatically generate a label. They are organised in decreasing size order.

#### A. PRODUCT LABELS



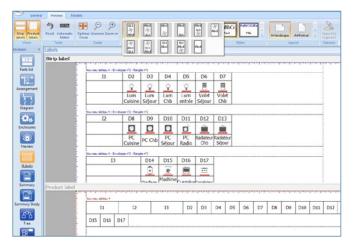
- Product labels can contain up to 3 items of information:
  - Device ID defined in the Arrangement table
  - Description entered in the diagram title block
  - Pictogram entered in the diagram title block
- To change template, click on the required template in the ribbon bar.

#### **B. STRIP LABELS**

In area [1], the strips are created automatically. They depend on the layout of the **Preview** module.



The contents of the strip labels are defined in the same way as those of the product labels.





The label contents may be entered directly now, without returning to the design module.

Double-click on the label to be completed to access its contents, then insert text or an image.

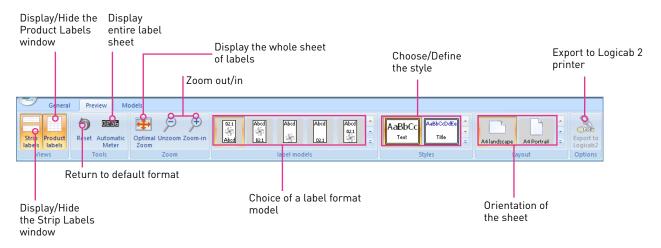
If you need to create several identical labels, use the copy-paste function, which you access by right-clicking.

Easily change font with the ribbon tools.

### LABELS MODULE



#### 3. Labels tab in the ribbon bar

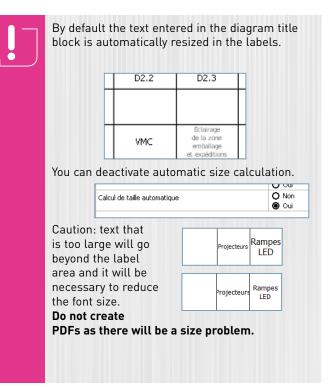


Labels can be customised.

- Click on the Text Styles or Title Styles icon to open the customisation window in which you will be able to select the font, alignment, etc.
- The font, its size, colour, etc., are selected in a specific window which appears automatically by clicking on the preview of the style window [3].



If you have a Logicab printer and XL PRO is installed on the same workstation, the Export to Logicab 2 icon is activated automatically and you can export your labels directly.



## SUMMARY AND SUMMARY STUDY MODULES

The Summary and Summary Study modules are used to draw up purchase orders and carry out the overall costing or costing per panel, based on your personal parameters.

### A Summary

#### 1. Introduction

#### (depending on the XL PRO version)

The **Summary** module has several tabs which display various summaries, the costing and the purchase order for your current panel.

Equipment List Equipment Costing Cabinet Price Purchase Order Technical Summary

#### A. TABS

#### > Equipment List

This tab displays a complete list of the catalogue numbers contained in the panel.

All factory-assembled equipment is grouped together under one heading. To find out the specific composition of the product, click on 🛨 in the left-hand column.

#### > Equipment Costing

The **Equipment Costing** tab can be made up of two windows: - One for **Legrand** equipment

- A second for additional equipment, if used (see page 29)

The **Rate U.P.** column gives the unit price of each catalogue number based on the **Legrand** price list included in XL PRO<sup>3</sup>.

The **Net U.P.** column shows the unit price for each catalogue number after deduction of the discount which must be entered in the **Discount** field, below the table.

Each net price can also be modified individually by doubleclicking on the corresponding line. Any prices changed in this way are shown in red. These changes can be cancelled by clicking on the **reduction Return to default purchase order** button.

The **Net Total** of the **Legrand** equipment purchases is updated after each modification.

	Description	Quantity		Net U.P.	Net Total
64378	bal switch 45 63A	1	99,9000		
C1513	31, <sup>8</sup> 125 cabinet 3 rows 18 m	1	145.0000	131.4000	131.4
C1553	White door for 3 rows	1	42,9000	38.6130	35.0
04825	Prong-Type supply huibar 13 devices 3P+N	1	4.4798	4.6230	4.0
105023	Vertical supply busbar HK <sup>4</sup> automatic connector 634 - 3 rows		95.0000	85.5000	85.5
80%208	Automatic four-poles supply builters & modules		14.8000	12.4200	24.9
05202	Automatic feur-poles supply busbars 18 modules	1			22.0
06254	Autiliary investors contact DC		28,2008	25.0730	24
06302	Automatic connection module for RCDs-#	1	31 2308	27 9900	27.9
06880	DX <sup>4</sup> MCB 4080/SkA3P+N C 16A auto/screw	1	19.4000	17.4000	122.3
06883	DX <sup>2</sup> MCB 4586/5kA18+N C16A auto/screw	11	19.4000	17.4000	232.0
00929	DX <sup>2</sup> MCB 4080/5kA-4P C 25A auto/screw	1	325.0000	94,5000	94.5
11200	RCBD Dis <sup>1</sup> 8000/10RA 4P C 32A 30 YA Type AC In/auto	1	355,0000	3,25,7000	325.7
1350	RCD DX <sup>2</sup> JF JSA IDmA Type AC Auto		84.8000	75.1200	75.8
1255-2	ECD DX <sup>2</sup> 4F 40A 30wA Type AC Auto		297 0008	213.3000	212.
1.2501	Pewer centactor 2ND with manual centrel, noiseless	1	78.8000	72.5200	70.5
(1.2553)	Parvety constantion 4NO 40A ctv1220V		132,0000	112,0000	112.0

## SUMMARY AND SUMMARY STUDY MODULES

#### > Cabinet Price

QUIRMENT	0.00 %			
		1004.61 @		
and equipment punch, net price		0.00 €		
doonal equipment net price		1004.61 €		
t equipment purchase		100-0.01 C		
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sie supplies	0.00 %	0.00 .		
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as Nargin	0.00 %	0.00 e		
sale of Materiel		1864.61 €		
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urly Rate		20.00 €		
iour cents		66.00 R		
	Transport 0.00 €		Cabinet net price excl. of taxes	1730.61 €
	Transport 0.00 €		Caloriet rel price excl. of taxes	1790.61 €
	Transport 5.00 €		Caloret net proceed, of taxes	198.41 €
	Transport 0.00 €		Cabred ref price exit of tens	19%.ÅI €
	Transport 000 €		Celevert integrics and, of taxes	196.51 e
	Transport 5.00 €		Celenet net price and, s <sup>4</sup> tones	DHEAL C
	Transport 500 €		Calment out price and of laters	1968) C
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	Snegot 130 €		Commentations and of loss	DEEK C

The **Net price** of the enclosure is calculated according to your own criteria.

The **Discount** shown is that entered in the **Equipment Costing** tab, and can be modified.

The **Additional equipment net price** is calculated automatically using the prices you have entered for these devices (see page 29).

For **Cable supplies**, a percentage of the equipment net purchase price must be entered.

The **Gross Margin** must also be entered in order to calculate the equipment sale price, to which **Transport costs** may be added.

To estimate the labour, XL PRO<sup>3</sup> uses a method based on **Labour Units** or Lab. Units.

One Lab. unit is equivalent to the time required for a 4 mm<sup>2</sup> connection, expressed in hundredths of an hour. This value is estimated on average at 5 hundredths of an hour, but it should be adjusted in accordance with your own experience.

XL PRO<sup>3</sup> determines the number of Lab. units for each device, based on the number of poles and the rating. It then calculates the total labour cost in accordance with the hourly rate entered. **Examples:** 

4P 16 A modular device = 4 Lab. units 4 P 160 A DPX MCB = 12 Lab. units

You can modify the default "Cable supplies" and "Estimated labour" data. Modified boxes are shown in red.
0.00 % 00 € To return to the default values, click on <sup>™</sup> .

#### > Purchase Order

Référence	Designation	Quantité	F.U. Tard	P.U. Net	Tetal Net
0,30051	Obtaratiours 24 modules	2	7.3600	7,3600	14.3
330335	Ceffret égypable XL <sup>®</sup> 400 métalligue H900	1	347,0000	347,0000	347.0
1020201	Support + rail 24 modules , fixe	2	21.4000	21,4000	42.8
330211	Plotine DPx <sup>1</sup> 160/250	1	68,5800	68.6000	62.0
0.00.255	Porte galbée pleine metal H900	1	216,0000	216.0000	216.8
0.30300	Plastron métal 24 modules H 150	2	40,3000	40.3000	80.6
0.3038.9	Plestron mittel 24 modules H 300	1	62,0000	\$2,0000	62.8
146.065	Plastron redtal plan HC00	1	37,2900	37,2000	21.2
0,70 (94.7	Flestron metal plein H050	1	19,2900	35,2000	19.
0.35.299	Rehausse pour modulaire	1	25,2100	26,2000	20.2
037385	Kit de liaison de terre	1	15.5800	15.5000	15.5
012434 *	Earre cuive rigide 1804	1	35,8000	36,8000	361
406773	Disj DNR <sup>4</sup> 4500 (4,5%A LP=N C 10A	3	19,8000	19.8000	30.4
406792	Disj DNR <sup>4</sup> 4500/4,58A 1P-N C 10A auto/auto	2	19,8000	15,0000	36.0
406793	Dig DNR <sup>4</sup> 4500/4,5kA 1P+N C 16A avta/auto	5	19,8000	10.8000	963
411,001	Drg det DX <sup>2</sup> 606/10kA 4P C 4EA 30mA Type AC auto title	1	385,0000	386.0000	386.0
411206	Digi diff DX <sup>1</sup> 606/106A 4P C XLA 300mA Type AC	1	329,0000	329.0000	131
41,7523	Contecteur 27 25A cde 2309	2	58,9000	58.9000	117.8
41,2602	Minuteria 164 7/0V	1	\$2,7000	\$2,2000	\$1.
41,2623	Int origusculaire I fonction	1	159,0000	139.0000	139.0
41,2641	Int horaire digit 2/35A multiforction	1	207,0000	287,0000	207.4
430219	Dig OP (258 25kA # 253A magnite-thermigae	2	1450,0000	1450.0000	2900.0
423086	Declencheur 0914 a emission courant 200-277V ac/dc	2	87,2900	87,2000	174.4
421031	Jeu de 4 borres à cages DPX <sup>1</sup> 200	4	63,7900	65,7000	262.0
421072	Platine de fiuit en 04% <sup>2</sup> 50 sur rail	2	12,000	13.0000	26.5

The **Purchase Order** tab displays the costed list of the **Legrand** catalogue numbers used in the cabinet.

If you already have some of these products in stock, you can delete them or change the quantities to be ordered by double-clicking on the relevant line. The totals are then automatically recalculated.

To cancel these changes, click on the **Return to default purchase order pre-transformed button**.



#### > Technical Summary

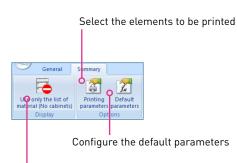
	1	Descriptive			
		Envelopp			
shours type:	10.1-125 cabinets		125 cabinet 3 rows 18 m	LEG	40161
			125 cabinet 3 rows 18 m	LEG	40161
ndesure devensione:	(500+430+250)		a door for 3 rows	UIG	40106
iture of the panels	40.52 da 1	11	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		
sume of the panel.	(46.50 de*		Isol switch # 63A	LDG	004370
porceinate meight of the panel:	12.34×p	12			
			RCD DXº 2P 25A 30mA Type AC Auto	LEG	411631
ndesure IP:	40(%)		Répartition		
			Prong-Type supply busbar 13 davices 1P+N	LEG	404926
eaking capacitys	5A H-400/230V	DI			
unities of modules availables	(1)		DXP MCB 4500/6kA 1P+N C 10A auto/screw	LEG	406881
Store et rootset analatet		02			
obliv reserve:	21.32%		DXP MCB 4500/6kA 1P+N C 10A auto/screw	LEG	406661
		03			
merve rut equipped:	0.00%	0.5	DX* MC8 4500/6kA LP+N C 19A auto/screw	LEG	400581
		10			400000
: cinema		13	RCD DXF 4F 404 30mA Type AC Auto	LHG	411652
			Repartition	Lea	411052
			Automatic four-polae supply busbars 6 modules	LEC	405200
		_	variance of the base offer anone a second	LES .	408200
		D4			
[1	1		DX* MCB 4500/GkA 1P+N C 10A auto/screw	LEG	406681
L I	1	05			
			DXP MCB 4500/6kA 1P+N C 10A auto/screw	LEG	400881
			Autiliary inventors contact DXP	LEG	406258
		00			
			DXF MCE 4500/6kA 1P+N C 10A auto/screw	LEG	406681
		02			
			DX3 MCR 4500/6kA 124N C 10A auto/ocrew	LEC	406681
		-		120	
		CI	and the second		
			Power contactor 4NO 40A ctrl 230V	LEG	412553

This page displays general technical information about the panel, together with a full description.

This is presented in the form of a descriptive list. It contains all the catalogue numbers classified by enclosure and by row.

Comments can be added in the window next to it [1]. These comments can be printed out on the technical summary document.

#### **B. SUMMARY TAB IN THE RIBBON BAR**



Only use products added via the Parts list module

#### > Only use the list of material (No cabinets)

This menu is very useful if you want to order products with no enclosure. The enclosure and products specific to the enclosure are thus removed from the summary.



You can achieve the same result by not using the enclosures module.

#### **C. SUMMARY PRINTING PARAMETERS**

#### > Choice of columns for the panels

This window is used to select the data you want to show when printing all the tabs, and the order in which you want it to appear. The fields selected are located in the right-hand part of the window in the respective tabs.

Use the i and i buttons to move the fields from one side to the other. The i and i buttons move all the fields at once. The i and i buttons to the right of the window are used to change the order by moving the selected field up or down. Confirm the printing options by clicking on **confirm**.



## SUMMARY AND SUMMARY STUDY MODULES

#### > Optional lines of printing

Depending on the selected tab, these are used to select  $\blacksquare$  or not select  $\square$  a type of information for printing. This function enables you to make certain information public.

Summary printing parameters		×
Summary - Purchase Order	Summary - Technical Summary	Summary - Implementation summary
Panel - Equipment list	Summary - Equipment costing	Summary - Cabinet Price
Choice of columns for the panels contained Esupment let Factory assembled product Complementary products	In the printing.	Reference     Description     Quantity     +
Optional lines of the printing		
List of Additionnal Equipment		Confirm X Cancel

When you print your purchase order, the following will be produced:

- A purchase order for the Legrand equipment list
- A purchase order specific to your factoryassembled products
- A purchase order specific to the additional equipment

These two specific purchase orders are only produced if they have been selected in the printing parameters.



The **Summary** module can highlight a problem concerning your choice of enclosure. Click on the arrow to find out which panel(s) are affected so that you can make the necessary modifications.

#### There are several possible causes:

- You have left products on the workbench

(Some products are on the bench)

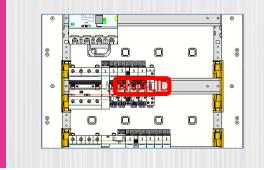
- You have not been to the Enclosures module
- Or XL PRO<sup>3</sup> has not found an enclosure to house your products

(Unspecified cabinet, the display is not valid)

The banner indicates "the preview is invalid for certain panels". Click on the arrow to find out which cabinet is affected.



In the **Preview** module a red "invalid" block indicates that your enclosure is invalid. You must go back to the **Enclosures** module to update the products.





#### **D. DEFAULT PARAMETERS**

- Here you can set the parameters of the following variables for your current panel and for subsequent panels:
  - Labour units
  - Discount
  - Hourly rate
  - Cabling supplies
  - Transport
  - Access online catalogue
  - Gross Margin

Default hourly rate:         20.00         €         Cabling supplies         0.00         %           Transport         0.00         €         Gross margin         0.00         %           copper bars configuration         Inter reference         Manufacturer         Net U.P.           BC_100X10         Copper bars 100:10 length 1750mm not supplie         To inform         0.000000         14.50000           BC_200X10         Copper bars 120:10 length 1750mm not supplie         To inform         0.000000         14.84000           BC_200X10         DS_DESIGNATION BARRES_CUVIRES_SPECIAL         To inform         0.000000         35.50000	Default Labour Uni			Hundredths of an hour	Disco			0.00	
copper bars configuration Inter reference Description Reference Manufacturer Net U.P. RC 100X10 Copper bar 120x10 length 1750mm not supplie To inform To inform 0.000000 14.50000 RC 120X10 Copper bar 120x10 length 1750mm not supplie To inform To inform 0.000000 18.40000	Default hourly rate	:	20.00	E	Cabl	ng supplies		0.00	%
Inter reference         Description         Reference         Manufacturer         Net U.P.           BC 100X10         Copper bar 100x10 length 1750mm not supplie         To inform         To inform         0.000000         14.50000           BC 120X10         Copper bar 120x10 length 1750mm not supplie         To inform         To inform         0.000000         14.50000           BC 120X10         Copper bar 120x10 length 1750mm not supplie         To inform         To inform         0.000000         18.40000	Transport		0.00	€	Gros	s margin		0.00	%
BC_120X10 Copper bar 120x10 length 1750mm not supplie To inform To inform 0.000000 18.40000	BC 100Y10	Connerh	ar 100×10 Jan	ath 1750mm not supplie	To inform	To inform	0.000000	1	1 500000
	-								
BC_200X10 IDS_DESIGNATION_BARRES_CUIVRES_SPECIAL To inform To inform 0.000000 35.50000	BC_120X10	Copper b	ar 120x10 len	gth 1750mm not supplie	To inform	To inform	0.000000	1	3.400000
	BC_200X10	IDS_DESIG	SNATION_BA	RRES_CUIVRES_SPECIAL	To inform	To inform	0.000000	3	5.500000



You can configure additional copper bars when they are not available in the Legrand range.

Double-click on the various boxes in the table to fill in the information concerning these products (catalogue number, manufacturer, price, weight, etc.)



You can export all or part of your Summary Study from the **General** tab in the ribbon bar > **Export icon** 

You can choose between text or CSV (Excel) format.

#### 2. Access to the E-catalogue

If you are connected to the Internet or you have installed the **Legrand** E-catalogue on your computer, you can access the product database directly from all the lists in the **Summary**, **Summary Study** or **Parts list** modules.

Right-click on a line, then click on Display the technical data in the popup menu to open the corresponding product data sheet from the:

- Equipment List
- Legrand Equipment Costing
- Purchase Order

004886	Modular Distr. unit 4P 125A
026299	Spacer for modular products mounted on Din-rail
401613	XL <sup>3</sup> 125 cabinet 3 rows 18 m
401863	White door for 3 rows Bisplay the technical datas
405200	Automatic four-poles supply bus 🗙 Cancel
406258	Auxiliary invertors contact DX <sup>2</sup>
406782	DNX <sup>3</sup> MCB 4500/4,5kA 1P+N C 10A auto/auto

If you are not connected to the Internet or you have not performed a full installation of the E-catalogue, a message will appear asking you to insert the CD-ROM.

Home	Library of documents	Equipment lists Drooth	Help & Legal informat	tion C	reate a new list
en la	anna d'	MCBs, RCBOs and DBI rail replament	Equipment and accessories	Other witting accessories	Lighting management, emergence buffing, access control and CCT
LI	egrand'	ACBs, MCCBs, head equipment and energy compensation	Arteor wiring accessories	Brilish Standard wiring accessories	Structured cabling, DLP cable management and workstation systems
Find pat. In	mbar, tay units Q	Enclosures	Nome automation and Home Network	Weatherproof wiring accessories and other installation equipment	Mosaic witing accessories and healthcare buildings
4 back	CAT. NO. 4 016 78	Unit price ex. tax Pack (number of unita) Valume (dm*)		WS - 54 MODULES - SUI	111,00 C* 1 39,28
	ownload image		+ ADD to my list	→ ACCESS my list	PRINT this sheet
Gene	ral characteristics		Product ch	aracteristics	
surfa	ce mounting cabinets XL* 1	25 - from 18 to 72 modules		unting distribution cabinets 5 modules per row	

## SUMMARY AND SUMMARY STUDY MODULES

### **B** Summary Study

#### 1. Introduction (depending on the XL PRO version)

The **Summary Study** module has several tabs which display various summaries, the costing and the purchase order for your current study.

Panel list Equipment list Legrand equipment costing Purchase order Commercial summary

#### A. TABS

#### > Panel list

This tab provides a dynamic summary of the variable data in the **Cabinet price** tab on page 92, in the form of vertical columns. Each horizontal line corresponds to one of the panels in your study. Only the coloured boxes can be modified directly in the panel. The variable data must be changed in the lower block. The modifications will only affect the panels in the current study.

In the transport block you can select either **Total Study** which adds together all the transport prices for each of the panels, or **Total Fixed Price** which will be a global sum allocated to transport. A **Time-phasing** box tells you the number of deliveries. You will also find this information in your commercial summary.

Fanal	Qty	Rate Total	Leg Total	lavipmen Complete	Matter	Wiring	Tetal Purchase Materiel	Gross	Sale Total Materiel	Unit		Tetal Labour Estimated	Net P.T. Cable supplies
tipartition modulaire	1	2014.85	2714.36	3.00		0.00	27,4.86	0.00	2014.86		4.50	90.00	2304.86
Répartition puissance 400A optimisée JN	1	12050.67		0.00		0.00	12090.67	0.00	12050.67		6.33	131.00	12381.87
Uparition IS	1	90290.53		0.00		0.00	90280.53	0.00	90280.53		81.15	1623.00	31903.53
Oparition publiance 400A optimizer (bf	1	30357.52	30157.52			0.00	30167.52	0.00	10367.52		5.97	165'00	10089.32
lapartition puintence 490A tradi	1	9,299.36	9299.36	3.00		\$.50	92597.36	0.00	1,389.36		9.45	185.00	9478.36
laparition puissance 800.4 optimisée jtil en sC800	1	27965.66	27948.54	0.00		0.00	27348.64	0.00	27945.64		11.20	724.00	28172.64
Répartition puinance 000A optimisée (M en x0000	1	20281.28	23291.28	0.00		0.00	23381.28	0.00	23281.28	5.00	10.05	201.00	23482.28
Copie de Répartition puissance 808A optimises joi en xU8000	1	79,228.56	28228.54	3.00		0.00	29229.51	0.00	29,228.51	700	19.45	585L0E	29617.51
Répartition puissance tradi en x04000	1	97902.63		0.00		0.00	97902.43	0.00	97902.63		87.70	1754.00	99656.67
Répartition puissance optimisée x20000	1		134366.59	0.00	114014.59	0.03	11430.6.69	0.00	114035.69	5.00	80.75	1635.00	1136-11.69
		Total a			Total						Tetal a	Total a	
		415536.69	(* * * * *		4111.02.65	0.00%	o 35	0.00%		5.00	115.90	6332.00	
		415216.09			4110.09	0.00%		0.00%		3.00			
Validit Ads					4110.49				engoor1 Total Dudy				6.05 ¢
Valle da			Supplies		4110.49	0.00%			Total Study Total Fund p				172 €
Variable data Discuss Lagrand Epigenest 200 %					41110.49				Total Study				
		wiring Gran		100 of an hi		0.0	×		Total Study Total Fund p				172 €

The **Summary Study** module can highlight a problem concerning your choice of enclosure. Click on the arrow to find out which panel(s) are affected so that you can make the necessary modifications.

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#### There are several possible causes:

- You have left products on the workbench



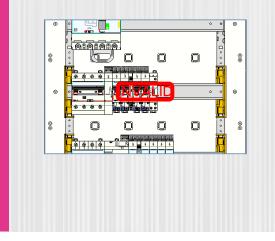
 You have not been to the Enclosures module
 Or XL PRO<sup>3</sup> has not found an enclosure to house your products

(Unspecified cabinet, the display is not valid)

The banner indicates "the preview is invalid for certain panels". Click on the arrow to find out which cabinet is affected.

The preview is invalid for certain panels

In the **Preview** module a red "invalid" block indicates that your enclosure is invalid. You must go back to the **Enclosures** module to update the products.





#### > Equipment list

This tab gives you a summary of the complete list of products in your study. The total quantity of each product and its catalogue number are given. All factory-assembled equipment is grouped together under one heading. To find out the specific composition of the product, click on 🛨 in the left-hand column.

Reference		Designation	
405223		Set of 3 connection modules 125A H0. <sup>4</sup> for 1P+N devices	
406238		Audiliary inventors contact DX <sup>4</sup>	
406773	9	DNK <sup>®</sup> MCB 430014,38A LP+N C L0A	
406774		DNK <sup>®</sup> MCB 4000/4,5kA LP+N C J6A	
406782	4	DNK <sup>C</sup> MCB 4300/4,3kA 1P - N C 10A auto/auto	
406733	3	DNK <sup>®</sup> MCE 4000 %,5kA 1.P+N C 16A auto/auto	
406754	1	DNK <sup>4</sup> M/CB 4000/4,5kA LP - N C 20A auto/auto	
407716	1	DX <sup>7</sup> MCB 6000/33%A 1P+N C 25A auto/screw	
407900		DX <sup>4</sup> MCB 6000/32kA 4P C 25A	
407901		DX <sup>#</sup> MCB 6009/33kA 4P C 32A	
407902	3	DX <sup>4</sup> MCB 6009/32%A 4P C 48A	
409363		DX <sup>9</sup> MCB 10096/158A 4P C 300A	
409797		DX <sup>4</sup> MCB 23kA 4P C 32A	
400738		DX <sup>®</sup> MCB 25kA 4P C 40A	
409802		DX <sup>2</sup> MCB 28A 4P C 10EA	
410048	19	DX <sup>P</sup> MCB 36kA 4P C 53A	
410533	)	Add on mod XhwA Type Hpi 45A for 42.4 mod.	
411139		RCBO EX <sup>+</sup> 5080/184A 4P C 12A X0mA Type AC	
411290	1	ECBO DIX <sup>4</sup> 5080/138A 4F C 40A XXvA Type AC levieuto	
411219	1	RCBO DN <sup>4</sup> 6080/138A 4P C 32A 300mA Type AC In/auto	
412408		Fulses operated latching roley 17 36A 2597	
420013		MCCB D9X168 14kA 49 53A thermal magnetic	
420016	1	MCCB DPX160 16kA 4P 125A thermal-magnetic	
420017	22	MCCB DPX*160 16kA 4P 160A thermal-magnetic	
420037	18	ECBO MCC8 DPX*160 16k3 4P 3603 thermal-magnetic	
420219	12	MCCB DPX*250 25kA 4P 250A thermal-megnetic	
420228		ECRO MCC8 CPX <sup>8</sup> 290 254:5 4P 2005 thermal-magnetic	
623372		Din rail fixing plata MCCB DPX*160	
423373		Den red foring plate RCBO MCCE DF2'550	
623374		Des reil feiing plate RCBD MCCB DFI 250	
9002.85		ACR DRU <sup>2</sup> factory assembled	
9002.85		ACB UMIX <sup>2</sup> factory exsembled	
900083	1	ACB DML <sup>2</sup> factory assembled	



You can also find out the technical composition of your product by right-clicking then choosing Display the technical data, which takes you to the E-catalogue (see page 97).

Reference	Description				
301660	Bianking plates 5 modules white	e-catalogue 2	012 - © Legrand REF. 4 016	13 - Coffret de distribution XL <sup>1</sup> 12	15 - 3 rangées
304336	Moduler Distr. unit 4P 125h	Home	Library el documents	Equipment lists Deven	and He
126299	Spacer for modular products mou				-
401613	XL <sup>1</sup> 125 cabinet 3 rows 18 m			MCBs. RCBOs and DNI roll	
401863	White doer for 3 rows		egrand"	equipment	Equipment a
805200	Automatic four-poles supply bush		grana	ACDs. WCCDs, load excement	
806258	Auxiliary invertors contact DX <sup>4</sup>			and energy compensation	Arteor evision
806782	ENX <sup>8</sup> MC8 4500/4,5kA 1P+N C 104				
406783	ENK <sup>1</sup> MCB 4500/4,5kA 1P+N C 164	Field MLP	Provider, hey word	Enclosures	Home auton Home Setur
406784	DNX <sup>4</sup> MC8 4500/4.5kA 1P+N C 204			Printed and an	-
807716	DX <sup>8</sup> MC8-5000/10kA 1P+N C 25A a				
411,201	RCBO DX 6000/10kA 4P C 40A 30r				
411219	RCBO DX <sup>2</sup> 6000/10kA 4P C 32A 300	4 343	CAT. NO. 4 016 78		
412408	Pulses operated latching relay 1P 1		GAT. NO. 4 010 70		
\$20016	MCCB DFX <sup>1</sup> 160 16kA 4P 125A then				
\$21071	Din rail fixing plate MCCB DPX <sup>*</sup> 160		-	DISTRIBUTION C	ABINETX
20					
			· management		
				NEW PRODUCT	
			· Management		

#### > Legrand equipment costing

The **Legrand equipment costing** tab gives a list of the equipment with the **Rate P.U.**, **Net P.** and the **Total Net**.

A separate block gives you the same information for your additional products.

Parlamence	Deseration	Quantity	Fate P.U.	Net P.U.	Total Net
001660	Elarking plates 5 modules white	1	1.4600	1.6600	1
004886	Modular Distr. unit 4P 1254		37,9000	17.5000	32
0.30051	Elarking plates 24 medules	11	7,1500	7.3500	73
0.30118	XL <sup>9</sup> 400 distribution cabinet H&600		790.0000	706.0000	2100
0.00176	Coble sleeve H6680		\$32,0000	\$12,0000	2365
0.39341	Metal solid faceplate H50 for cable sleeve	1	25,3000	25,3000	25
0.00542	Metal solid faceplate HDD for cable sleeve		30.4000	30.6000	30
020347	Metal solid faceplate HE130 for cable sleeve	1	153,0000	153.0000	153
0.20348	Metal solid faceplate HE430 for cable sleeve	1	187.0000	387.0000	157
896660	Cables since door H0800		290.0000	250,0000	500
0.90.001	Support+24 modules roll, fixed		20,4000	20,8000	27
310,003	Rail for modular devices in cable sleeve		22,4000	22,4000	20
0.10,006	Support-28 modules rail, adjustable		28.1000	28.3000	58
0.00.111	Herzortal plate MCCB DF2 <sup>+</sup> 360/250		66,000	66.000	64
039220	Mounting plats DFX 250/630 vertical	1	96.7000	96.3000	26
030321	Mounting plate DFX 250/626 vertical central position		180.0000	300.000	100
0.0025	Plate DFX 630 horizontal fixed wt RCD		72,5000	72.5000	72
951600	Curved metallic transparent door i-1500		406.0000	406.0000	1213
039300	Metal Front plate 24 modules H150	1	39.0000	39.0000	117
0,99303	Metal Inant plate Provolutes for cable sleeve H150		47.6000	47.6000	47
039310	Metal front plate 24 modules H 300		59,9000	59,9000	239
030120	Metal from place DPX230-400 H400	1	86.0000	86.0000	80
0.10321	Meta front plate (80030-400 central position H400		\$4,3000	84,3000	84
0.99125	Faceplate DPX 530 horizontal fixed wt RCD H 300		71.5000	71.5000	71
0.70540	Metar selic faceplate HDD		25,5000	25.5000	54
0.30141	Metal solid faceplate HEIB		15,9000	15.9000	71
0.00343	Metal solid faceplate +Q00		45.0000	45.0000	90
020344	Metal selid faceplate H000		65.0000	65.0000	195
0.39404	XL <sup>1</sup> 800 distribution (abinat width 660 vm HC550		L0+0.0000	1840.0000	3043
039409	XL <sup>9</sup> 800 distribution cabinet width \$20 mm H2550	1	1350.0000	1350.0000	1353
SHU14	External cable doesn MEMP		484 4000	646 1000	600

#### > Purchase order (see page 94)

	Description	Quantity	Rate U.P.	Net U.P.	Net Total
004378	last particle (# 43A	1	99.0000	80.9300	825
401513	11°125 cabinet 3 rose 18 m	1	346.0000		131.4
401363	White door for 3 rews	1	42.9000		30.0
404326	Prong: Type supply busber 13 devices 1P + N	1	4.4700		
405323	Vertical supply busher HX <sup>2</sup> extornetic connexion ESA - 3 rows	1	\$5.0000	85.5000	85
405200	Automatic four-poles supply busines if modules	2	13,0000	12,4300	24
405202	Automatic four-poles supply busbers 38 modules	1	24,5000	22.0500	22
406258	Assiliary invertors contact DX <sup>4</sup>	1	28,3000	25,4700	25
405102	Automatic connection module for RCDs 4P	1	11.3000	27.9900	27
406883	DX <sup>8</sup> MC8 4500 REA LP+N C 10A auto/screw	7	19,4000	17.4000	122.
405481	D3 <sup>8</sup> MCB 4200/88A 12+N C 15A auto/screw	11	19,4000	17.4800	122
405970	DX <sup>2</sup> MCR 450D/84A 4P C /RA 8.dx/sc/en	1	105.0000	64.5000	94
411,200	ACBO D3 <sup>1</sup> 6000/30kA /# C 32A JOmA Type AC In/auto	1	363.0000	126,7000	325
413.523	ACD DX* 29 256 XimA Type AC Auto	1	84.8000	76.7,00	75.
11552	RCD EXIT 4D 4DA JOmA Type AC Auto	1	237,0000	213,3000	213
6.2560	Four certador 200 with manual control, recipiles	1	78.6000	20.6200	75
412553	Fewer contactor 4NO 40A ctd 2007	1	112.0000	118,8000	119
4250	Proce contrador that Black of 2017	1	112.000	138,4000	

## SUMMARY AND SUMMARY STUDY MODULES

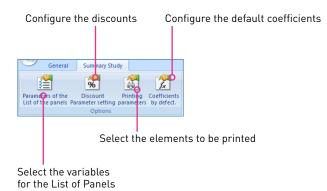


#### > Commercial summary

This tab provides the whole of your study in the form of a simple summary (for viewing only).

Rate total	25200.69 €		
Number of panels	7		
Total Net Legrand Equipment	25200.69€	Variable data	
Total Net Other Equipments	0.004	Dicount Legrand Equipment Wining Supplies	0.00 %
Total Equipment	25200-694	Gross margin Labour units (in 1/100 of an hour) Hourly Rate	0.00 % 5.00 20.00 €
Total Wiring Supplies	0.00 4		
Total Materiel Purchase	25200.69 4		
Total Gross margin	0.00 4	Net price study end. of taxes	26249.69 #
Total Sale Equipment	25200.69 4		
Total Hours	52.45		
Total Estimated labour	1049.00 e		
Total Transport	0.00 €		

#### **B. SUMMARY STUDY TAB IN THE RIBBON BAR**



#### > Panel list parameters

Display or hide certain columns in the panel list by selecting or deselecting them.





You can export all or part of your Summary Study from the **General** tab in the ribbon bar > **Export** Reveal icon. You can choose between text or CSV (Excel)

You can choose between text or CSV (Excel) format.



#### > Configuring discounts

By default XL PRO<sup>3</sup> adopts a system of overall discounts. You can apply a discount per product family by deselecting the box in the configuration menu (depending on the XL PRO<sup>3</sup> version).

Discount Parameter setting		×
☑ Use the global discount system		
	🧹 Confirm	X Cancel

#### > Printing parameters (see page 95)

+	desele in <b>Pan</b> which	only have a few ect, right-click o <b>lel list</b> mode to you can select o d or not printed	n one of the open a pope or deselect	e colun up mer	nns nu in
		Summary Stedy			
		Faced Registry in the research of the resear	Figure 1         Statistical 1         Mage           Figure 2         Statistical 2         Statistical 2         Statistical 2           Statistical 2         Statistical 2         Statistic	e tog tog 1914 SR 1914 SR 1914 SR 1915	See Maps         See Marcal (and Marcal (and Marcal)           12         USNET           12         USNET
		Tarkible data			* 144 Tub
			Wring Supplies	0.0 %	C tatal Paneto
		Exact Legent Epipted 100 %	Gene margin Labour units (in 1/201 of an invar)	1.00 %	
			Hourly Fater (f)	28.00 4	
		And the second s			Last sector riterio

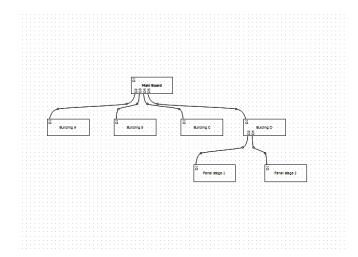
> Default coefficients (see page 97)

2. Access to the E-catalogue

(see page 97).

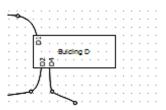
### TREE MODULE

The tree module makes it easier to create and display: the links and the hierarchy between the various panels in your studies.



#### 1. Work area

- The work area provides a page on which the various panels which make up your studies are shown.
- This schematic representation is organised vertically into levels in the same way as an organisation chart.
- Lines represent links between panels.
- The numbers of the products at the panel inputs and outputs are also shown.



#### 2. Popup menu

Right-clicking in the work area opens a popup menu enabling you to change the Orientation of the page containing the circuit diagram, to Add a page or to Add a new panel.

B	Add a page
	Portrait
8	Add a panel

Right-clicking on one of the panels opens a popup menu enabling you to Add, Rename, Delete or Duplicate a panel.

8	Add a panel
	Rename
×	Remove
Ð	Duplicate
₽	Define an enclosure
•	View
	Summary
₽	Current panel
C	Rotate
Ľn	Link

The **View** command opens the **Preview** module (see page 52).

### The **Summary** command opens the **Summary** module (see page 93).

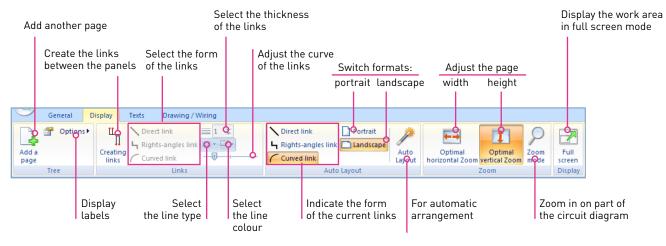
The **Link** command enables you to select the linking products between the panels manually using a popup sub-menu, except for imports from XL PRO Calcul.

Product to connect
D2
D3
D4
D5



#### 3. Ribbon bar

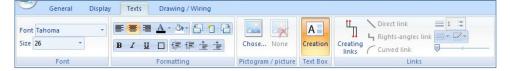
#### A. DISPLAY TAB





To exit Full Screen mode press the **Esc** key on your keyboard.

#### B. TEXT TAB (see Circuit Diagram module, page 48)



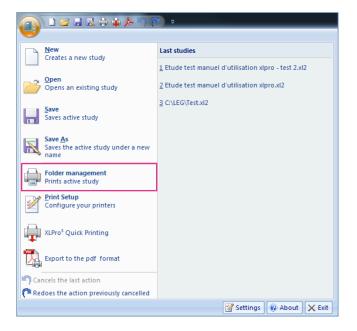
#### C. DRAWING/WIRING TAB (see Circuit Diagram module, page 49)

	General	Display	Texts	Drawing / Wiring
			$\bigcirc$	
Drawda	sh/arrows r	Draw ectangles cer	Draw rcles/ellipses	<b>1</b>
	Drawi	ng / Wiring		Styles

The Folder management module enables grouped printing of the documents which make up the study.

This tool enables you to generate your printouts as required:

- Quick, simple printing: Basic mode
- Customisable printing: Advanced mode
- This module is accessed from the start menu



- To open this menu, click on the start button (4).
- You can also insert a shortcut to this module in the Quick Access toolbar (see page 05) by clicking on the local icon.

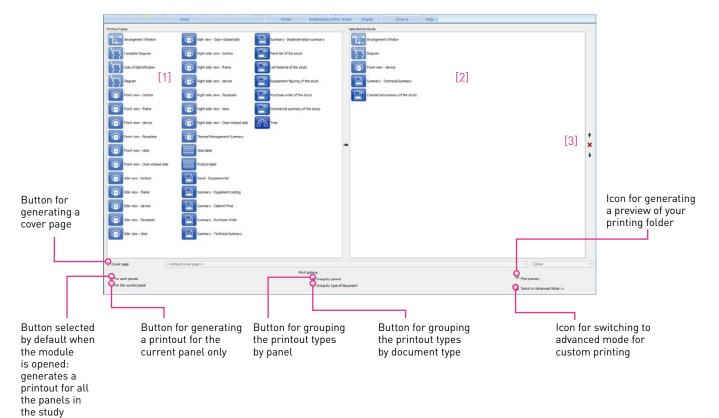


The **Print Setup** menu enables you to set the printing parameters of your printer but not to modify the page layout of your folder.



### A Basic mode

This mode enables you to select predefined layout models.



#### 1. Selecting printout types

- Select the **Printout types** you want to print in the left-hand part of the screen, in the **Printout types** window [1].
- Then click on 💌 (or double-click on the selected icon).
- The selected Printout types then appear in the right-hand part of the screen, in the Selected printouts window [2].
- You can delete a printout type by clicking on 🗷 or using the **Del** key on your keyboard.
- You can also sort the printout types into the required order using the arrows to the right of the the screen [3].

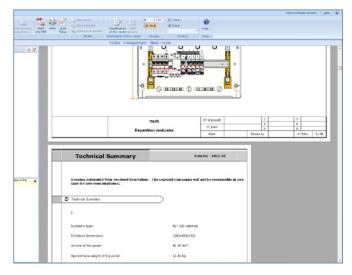
#### 2. Choosing the cover page

- If you want to add a cover page to your printing folder, select the corresponding box then choose the orientation of the cover page (landscape or portrait) in the dropdown menu.
- The next dropdown menu enables you to define the required type of cover page (single for the whole study, one for each panel, or both).

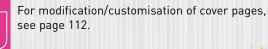
#### 3. Print preview

Once you have selected your printout types and your appearance options, click on **Print preview** (at the bottom right of the screen) to display your printing folder.

#### A window appears.



This preview mode gives you access to customisation options.



You can return to basic mode by clicking on 🔼

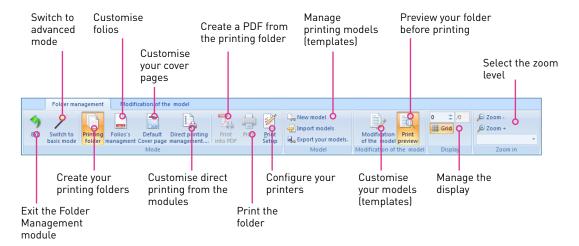
#### 4. Printing

- When you have finished customising your folder, you can print it out directly or generate a PDF.
- In basic mode, click on **Print preview** (in the ribbon bar or at the bottom right of the screen).
- You are automatically taken to Advanced mode and the print button in the ribbon bar is now active. To start printing, click on .
- XLPRO<sup>3</sup> adapts the printing to the paper format (A0, A3, etc.)
- To generate a PDF, click on <sup>1</sup>/<sub>2</sub>.
- You then have an electronic file that your can easily send, for example by e-mail.

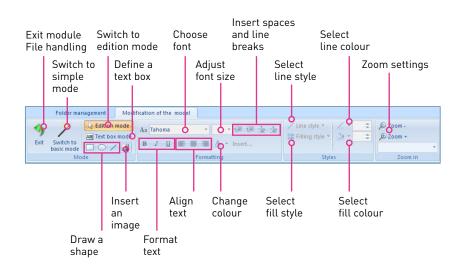


### **B** Ribbon bar

#### A. FOLDER MANAGEMENT



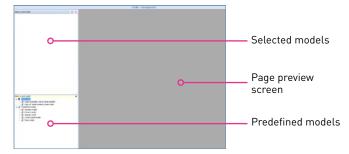
#### **B. MODIFICATION OF THE MODEL**



### C Advanced mode

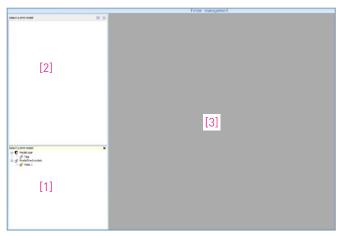
To access advanced mode, click on the ribbon bar.

To return to basic mode, click on the Z icon. Advanced mode enables you to customise your layout models (templates).



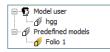
#### 1. Folio management

#### A. THE INTERFACE



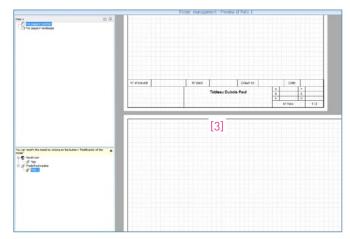
- In area [1] you can access existing models. These models are classified into 2 categories: user models (created by you) and predefined models (provided by XL PRO<sup>3</sup>)
- Area [2] gives the description of the contents of the models.
- Area [3] displays the models.

#### **B. CREATING A NEW FOLIO MODEL**



To create a new folio it is advisable to start with the predefined model called **Folio 1**.

Double-click on Folio 1. The corresponding pages appear in area [3].



You can now modify them. Click on the Modification of the model icon.

XL PRO<sup>3</sup> then asks you to create a copy of the current model, in order to keep the predefined model intact. Click on **Yes**.

A new model is created in area [1] with the name **Copy of** Folio 1.

At this stage, it is recommended that you rename this new folio to make its name more explicit and make it easier to use in the future for other studies.

#### **BACK TO CONTENTS**



#### > Example: changing the company logo to information on the company name.

On the folio you are going to copy in order to modify it there is by default a block designed to contain your **Company Logo**. You can replace this with your **Company name**.

Click in the Company logotype block to select it.

[N° of project:]	[Contract number:]	0
Comp	any logotype	T
0		þ
		-
ol <u> </u>	0	6

Press the **Del** key on your keyboard to delete it.

Using the text modification tools, draw a new text block in the available space, then click in this new block to make the text entry cursor appear.

 			 		 (C)	levisio	on index (	(F)	tevision index I
			[Name of the s	tudy]	(8)	levisi	on index E	(E)	evision index 8
		0	[Name of the p		[A]	Revisi	in index/	(0)	levision index C
			[Name of the p	aneij		D.	folio (		r]/[Tota numb
	0	0			 _			-	

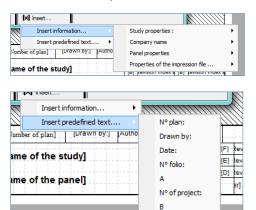
Now click on the tool [X] Insert a variable. This tool enables you to insert information or predefined text in a text block, as required.

С

D

F

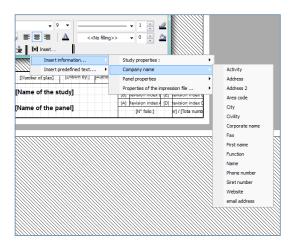
Beneficiary Participant





All the information inserted is dynamic : it is already managed in XL PRO<sup>3</sup> and is displayed in square brackets [].

Now insert the parts of your Company name that you want to appear.



- When the folio is printed, these fields will be replaced automatically with the corresponding information that you entered in the **Company name** software interface (see page 01), which you can modify at any time.
- In this example we will insert the Corporate name first. Press the Enter key on your keyboard to move to the next line, then insert the Address field in the same way, press Enter, then Area code followed by a space (space bar on your keyboard) and insert City. Press Enter and finally insert Phone number.

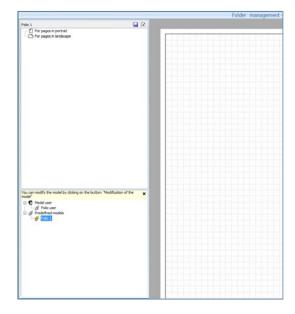
IN° of project:1	Contract number:1
[Corp	orate name]
[/ [Area	dresse] code] [City]
[Pho	ne number]
	0

If you wish, you can now format this new text.



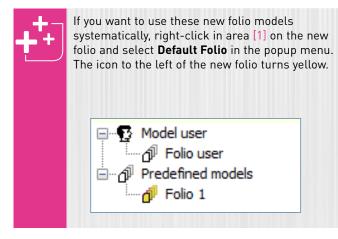
Each folio generally exists in portrait and landscape format. Modifications made to one of these formats are not automatically applied to the other.

- You have just created a new folio model in portrait format. To apply the modifications you have just made to Landscape format, start by double-clicking on Folio 1 in landscape format. The corresponding pages appear in area [3].
- As before, copy then give the new model a name.
- Then, using the Tools for modifications of the model, select then delete the Company Logo block, as seen previously.
- Go back to your page in portrait format then select your new Company name block. Right-click then select Copy in the popup menu.
- Go back to the landscape format folio and right-click, then select **Paste** in the popup menu.





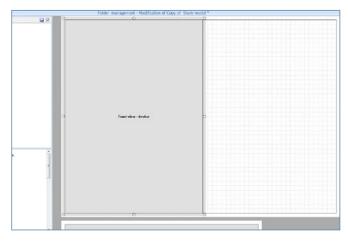
■ At this stage it is recommended that you save by clicking on the 🗟 icon at the top right of area [2].



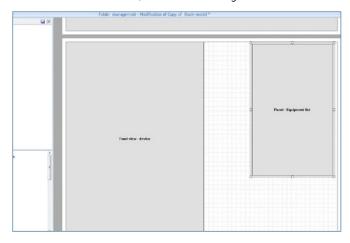
- C. GROUPING TOGETHER SEVERAL PRINTOUT TYPES ON THE SAME PAGE
- For example, if you want to place the Equipment list on the same page as the Front view - device.
- First select and click on the **Front view device** page.

			Folder management - Modification of Copy of Study model *	_
	99		<u> </u>	
° °		0		0
			0	- 0

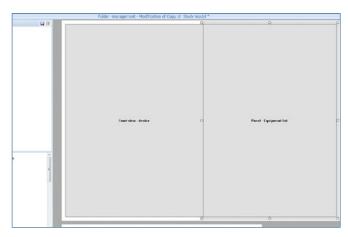
- Sizing handles (white circles) appear at the 4 corners and the centre of each side of the block.
- Click on the handle in the centre of the right hand side and drag it to the left, without releasing the mouse button, to halve the size of the block.



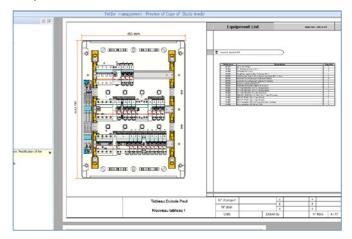
- Now select the Equipment list page and halve it in the same way.
- Select the reduced size Equipment list block by clicking on it, and drag it to beside the Front view - device block, which is also reduced, without releasing the mouse button.



- Adjust the 2 blocks to the required size then save by clicking on the 🐱 icon at the top right of area [2].
- The **Equipment List** page is still visible in area [2].



Return to Print preview mode to display your new page layout.



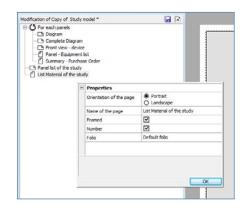
This function is not recommended for the largest main LV distribution boards.

#### 2. Managing cover pages

- The work areas are identical to those for Folio management.
- The modification tools are identical to those for Folio management.
- The modification process is identical to that for Folio management.

#### 3. Managing the printing folder

- There are several options for creating a printing folder:
- A. FOLDERS PREDEFINED BY XL PRO<sup>3</sup>
- These can be accessed by clicking on the Printing folder icon in the ribbon bar.
- Select the model you want in area [1].
- **B. CUSTOM FOLDERS**
- In this case it is advisable to return to basic mode by clicking on the *i* icon in the ribbon bar.
- Follow the steps described on page 103.
- When you get to Print preview you automatically switch to Advanced mode and you can access the corresponding functions. (Modification of the models, etc.)
- Right-click on the pages that appear in area [2] to access their **Properties**.





## COMMUNICATION MODULE

Enables you to create the block diagram of your connected installation.

You can:

- visualise connected products,
- show links (BUS and IP network diagram),
- select new products to complete your connected installation.
- XL PRO<sup>3</sup> verifies the completeness of the connected installation: an alert message appears if the installation is missing an element.

Display Texts Drawing / Wiri	ing									
Direct link	Direct link         Portrait           Rights-angles link         Landscape           Auto         Layout	Optimal horizontal Zoom								
Links	Auto Layout	Zoom								
Communication	Communication									
Nouveau tableau 1	Nouveau tableau 2 Nouveau tableau 3	Nouveau tableau 4 Nouveau ta								

XL PRO<sup>3</sup> offers products suitable for your installation: by right-clicking or double-clicking, you can visualise the solution offers and integrate them into the installation.

Display Texts Drawing / Wiri	ing	
Direct link	Noirect link         Portrait           Rights-angles link         Landscape           Curved link         Laudscape	Optimal horizontal Zoom
Links	Auto Layout	Zoom
Communication		
Nouveau tableau 1	Add a switch	Nouveau tableau 4 Nouveau tabl



Beyond 32 points, XL PRO<sup>3</sup> add a new converter.

#### 1. Contextual menu

Right-clicking in the workspace opens a contextual menu that enables you to change the orientation of the page containing the diagram, to add a page or to add a new panel.

	Γ	2	A	dd	a	pa	ge	2			ŀ	
	[	5	Po	ort	ra	it					Ŀ	
	P	_			a			-1		-	ŀ	
	Ł	2	A	Ju	a	pe	1110		_	_	Į.	

Right-clicking on a table opens a contextual menu that enables you to add, rename, delete or duplicate a panel.

-	le	w p	ar	ıel	6	5	-	Ĭ	ł	:	:	ł	ł	:	:	:	ł	:		
				=		A	do	l a	p	an	el								Ē	
						R	er	nar	me										ŀ	
				>	Ł	Remove														
			E	B		Duplicate														
				0	ŧ	D	ef	ine	e a	an	er	nd	os	ur	e				ŀ	
					1	C	ur	re	nt	pa	an	el							ŀ	
				0	1	D	ot	at											ŀ	
			4	6	_	~			-	_	_	_	_	_	_	_	_		i.	

The View command opens the Preview module (see page 52).

The **Summary** Command opens the **Summary** module (see page 93).

The **Link** command enables you to manually select products for connections between tables, via a contextual sub-menu, except in the case of a XL PRO Calcul import.

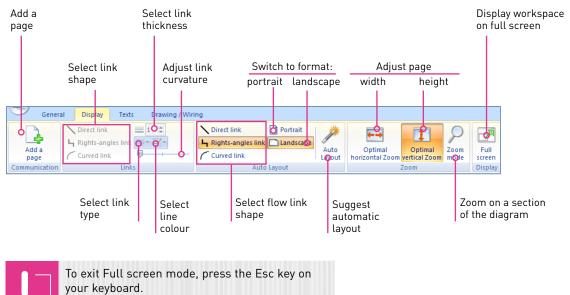
	Product to connect
_	D2
	D3
	D4



## COMMUNICATION MODULE

#### 1. The ribbon

#### A. VIEW TAB



#### **B. TEXT TAB** (see **Diagram** module, page 48)

General Display	Texts Drawing / Wiring		
Font Tahoma   Size 26	■ <b>■ <u>A</u> · ◇ · 台 1 日</b> B <i>I</i> 및 □ 健健主主	Chose None	Noirect link     □       Image: Second secon
Font	Formatting	Pictogram / picture Text Box	Links

#### C. DRAWING/WIRING TAB (see Diagram module, page 49)

Y	General	Display	Texts	Drawing / Wiring
Drawda	sh/arrows	Draw ctangles cer	Draw cles/ellipses	
	Drawir	ng / Wiring		Styles

#### BACK TO CONTENTS





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