PHILIPS

dynalite

System Designer

System Builder Design Mode

User Guide

Revision 02

About this document

This document describes the System Design process. A working knowledge of System Builder (SB) and Dynalite commissioning processes is required to effectively use this document.

Target audience

System Designers, Specifiers and Commissioning Engineers

Prerequisites

Before designing a system, you should have completed System Builder training modules 1 and 2.

Disclaimer

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The approach in this guide will be generic in nature. However, depending on the geographic location of the building, there will be national, regional, and local electrical and occupancy regulations that will need to be considered in the planning and implementation and installation of the system.

Copyright

Icon legend.

- Danger
- Warning
- Important
- Note
- Tip

Table of Contents

1 Enable Design Mode

1.1 Overview

System Designer (SD) streamlines the process for generating control system designs.

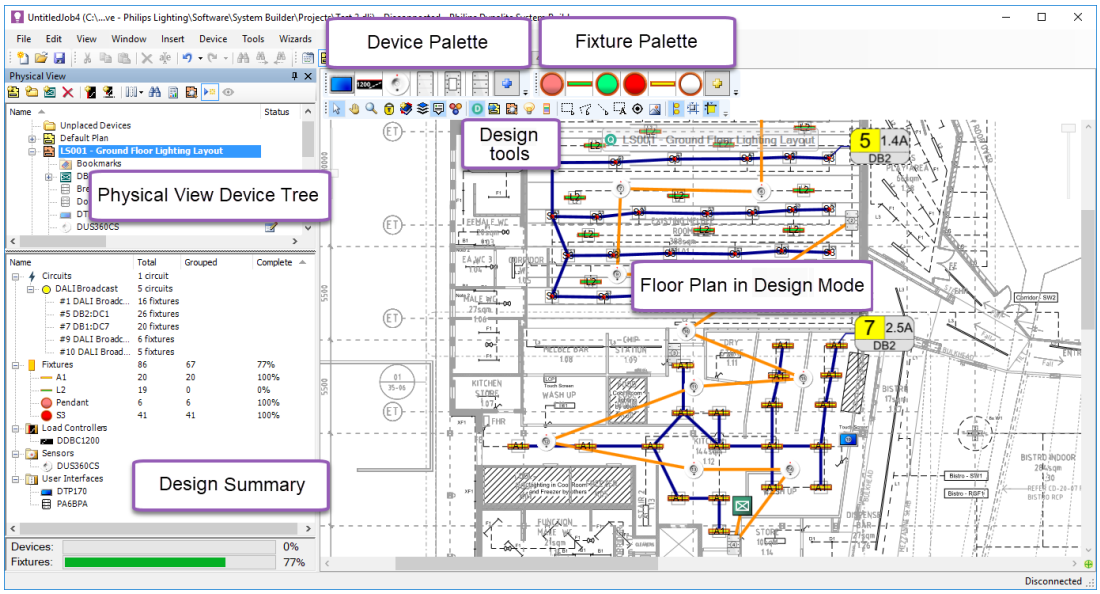
Responding to a quotation request is an important step in the sales process, enabling the specifier to make an informed purchasing decision and providing an opportunity to win their business. Producing the lighting system design involves examining the floor plans, counting lamps, fixtures, circuits, and devices, calculating circuit loads and identifying the cable runs, then pricing the hardware, installation work and commissioning services. System Designer saves you time by automating many of these tasks.

System Designer lets you load vector drawings of floor plans and define the shape of items from the floor plan legend. The shape recognition tool automatically scans each floor plan and identifies fixtures and devices. System Designer keeps count of all items and provides a load schedule and hardware summary as well as offering several reports for different stakeholders.

Additionally, System Designer completes the initial commissioning steps while you are quoting without any additional work. This delivers a head start in commissioning, significantly reducing the time to put a system into operation. System Designer helps to:

- Define the project requirements.
- Import multiple floor plans.
- Identify the location of light fixtures, sensors, user interfaces and distribution boards.
- Identify the number and types of circuits.
- Count the lamp types, fixtures, sensors, and user interfaces.
- Calculate loads per circuit.
- Estimate the number and type of control devices required.
- Calculate control network loads and supply requirements.
- Build the job in the commissioning software as you produce your quote.
- Provide an electronic record of the quote.
- Publish various reports from the quote information for different stakeholders.
- Rescan and modify the quote for floor plan revisions, saving rework.

A special license is required to enable Design Mode, The license can be requested by emailing support.controls@signify.com



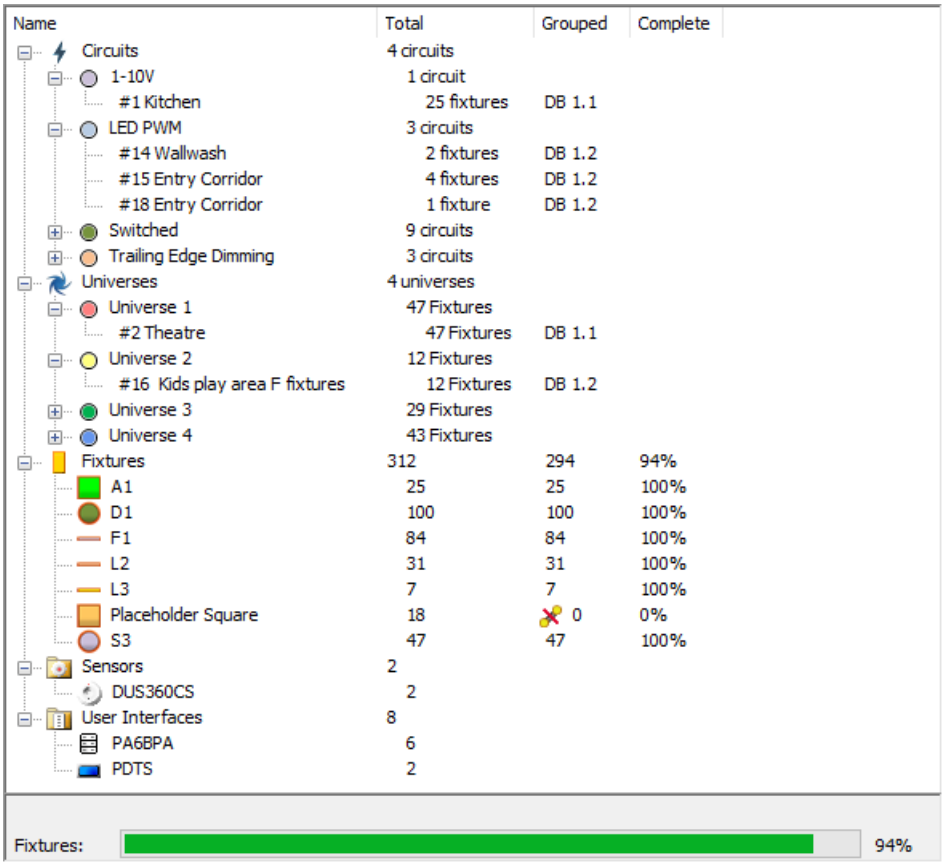
1.2 Design Summary

The Design Summary window enables you to visualize and track the progress of your quote. The design summary is shown in the lower part of the Physical View window. The design summary shows a count of the:

- Total number of circuits on the floor plan
- Total number of universes on the floor plan
- Total number of fixtures on the floor plan and how many have been grouped into circuits or universes,
- Total number of devices on the floor plan
- Percentage of commissioned fixtures and devices.

The design summary provides shortcuts to help you navigate on the floor plan. Clicking an object in the Design Summary window selects every occurrence of that object on the floor plan.

When not in Design Mode, the Design Summary can be used for tracking the commissioning progress.



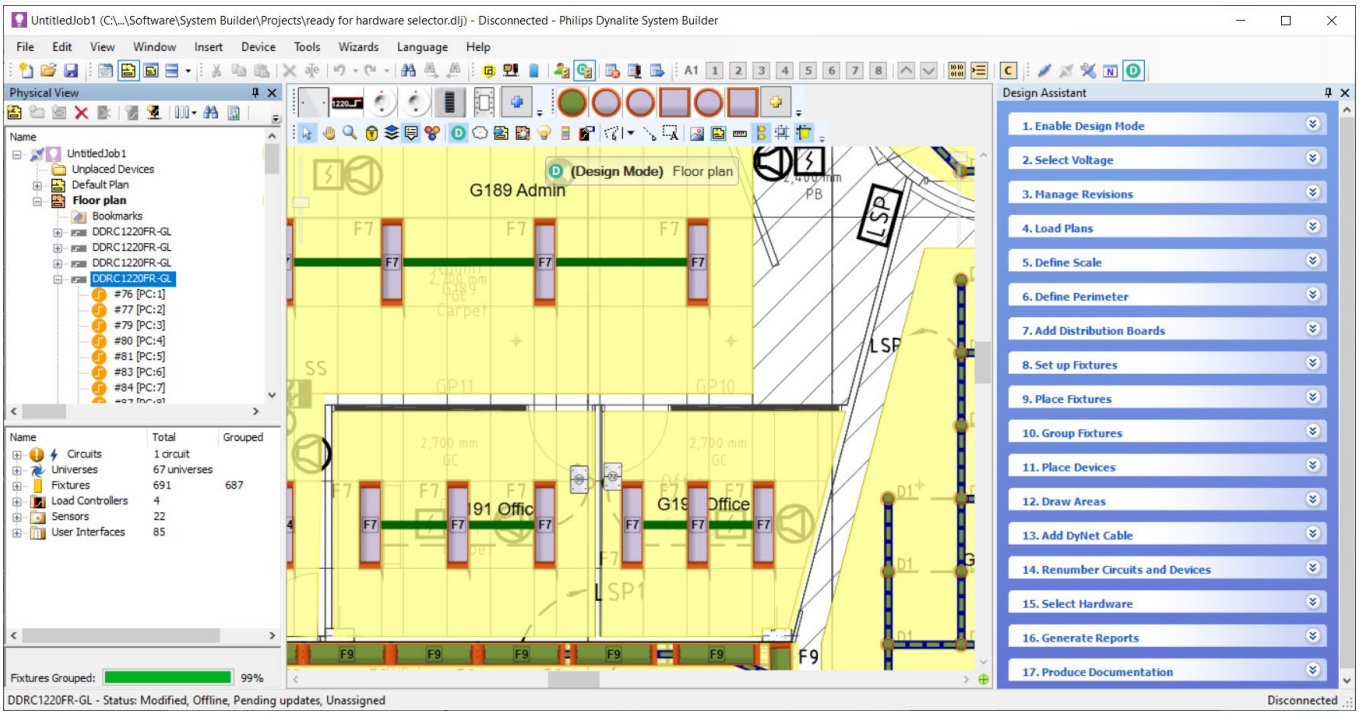
1.3 Design Assistant

System Designer provides a Design Assistant to walk you through the steps of producing an accurate quote without resorting to pen and paper. The Design Assistant provides a step by step procedure for constructing a quote, including hyperlinks to the required tools.

To open the Quote Assistant, from the View menu, select Design Assistant. Design Mode is automatically enabled when viewing the Quote Assistant.

The recommended process for producing a quote is as follows:

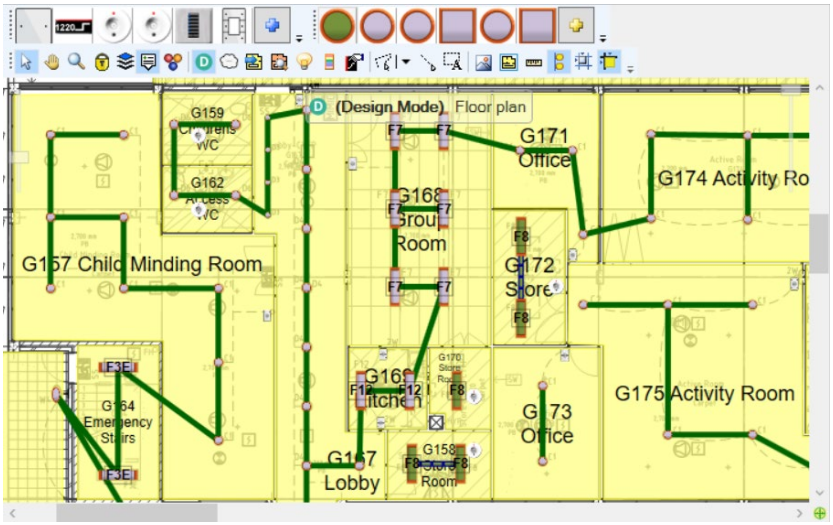
1. Enable Design Mode
2. Select Voltage
3. Manage Revisions
4. Load Plans
5. Define Scale
6. Define Perimeter
7. Add Distribution Boards
8. Set up Fixtures
9. Place Fixtures
10. Group Fixtures
11. Place Devices
12. Draw Areas
13. Add DyNet Cable
14. Renumber Circuits and Devices
15. Select Hardware
16. Generate Reports
17. Produce Documentation



1.4 Starting a design

Enabling Design Mode changes the view in the floor plan window to help you identify items in your quote. This includes highlighting fixtures, displaying thicker cable lines, and showing callouts for circuits and universes.

To start a quote, click Design Mode on the floorplan toolbar. The Design Mode icon displays on the floorplan heading with the plan name in bold and the floor plan toolbar now displays the quote tools.



Design tools

- Design Mode
- Manage Revisions
- Import plans from background images (Load Plans)
- Open Shape Recognition Editor (SRE)
- Open Quick Fixture Setup
- DALI Universe Profile Editor
- Show Hardware Selector

Drawing tools

- Draw Area Region
- Draw Line
- Create Text
- Draw Perimeter Wall
- Set Background Scale Factor

Job Tools

- Design Assistant (Alt+9)
- Job Notes
- Toggle Design Mode On and Off

2 Select Voltage

Depending on your country you can select one of the following supply voltages or enter your own value. This is stored as a job property and is used to calculate the current for each circuit.

- 110 VAC
- 240 VAC
- 277 VAC

Without the Design Assistant you can select the Voltage in Tools > Settings > Job settings > Job File> Voltage (V)

You can still enter different voltages for individual circuits if required.

You can also select the load controller supply voltage if it is different to the circuit voltage.

- 110 VAC
- 240 VAC

The last option allows you to select the voltage for the RS-485 DyNet cable. This based on the devices available in your region.

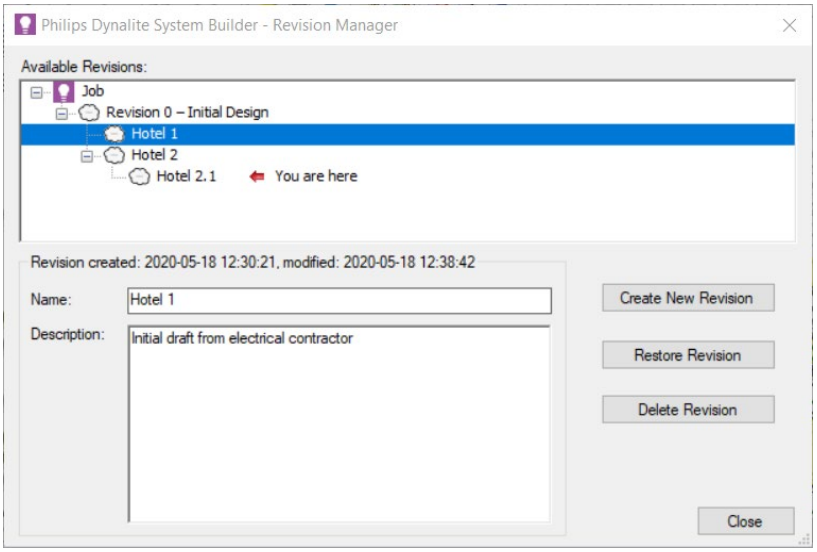
- 12 VDC
- 24 VDC

3 Manage Revisions

The Revision Manager provides a revision history to keep track of updates and variations to your quote.

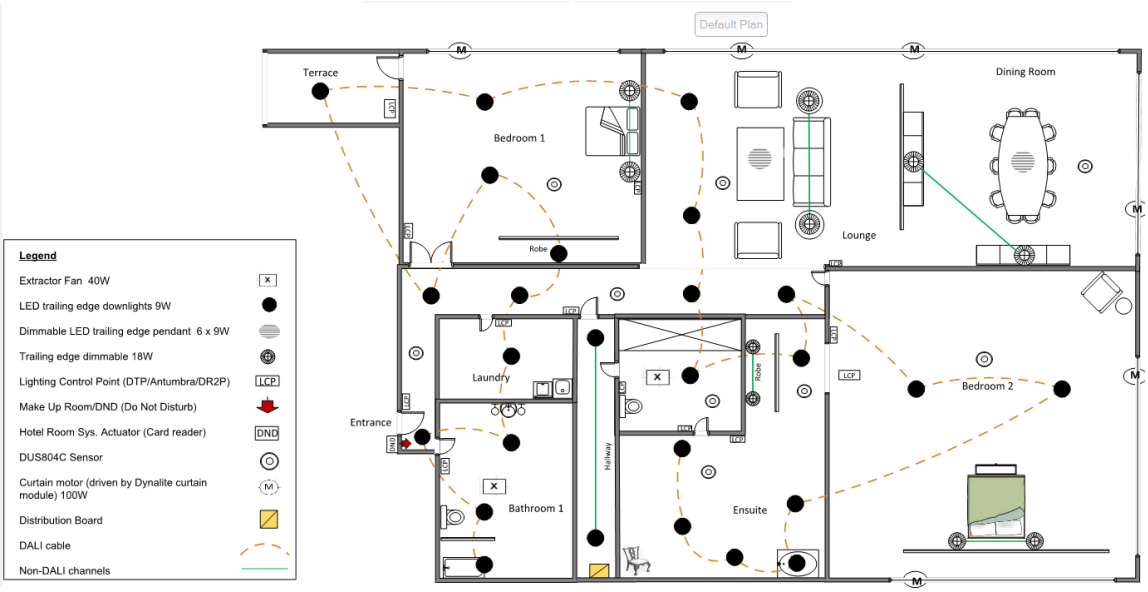
If new revisions of floor plans are provided, the floor plan background image can be updated using the Replace Background Image feature. For a new revision of a floor plan drawing, click Replace background image, and rerun the shape search. The Shape Recognition Editor will update the placement of fixtures and devices.

Design revisions can branch off from any of your previous revisions and you can revert to a previous design, if required.



4 Load plans

On receipt of the tender documentation, the floor plan drawings may be available as a single or multiple page PDF file. System Designer imports all PDF pages as separate floor plan background images.

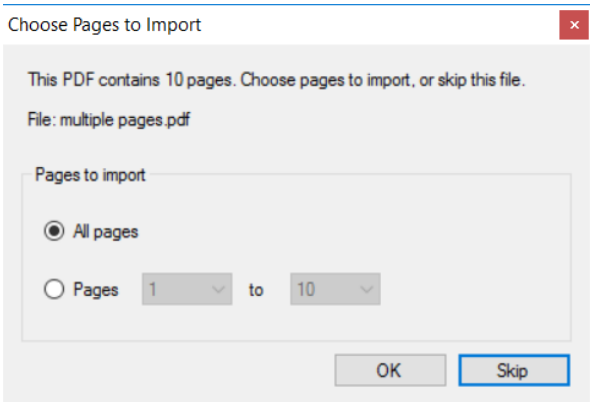


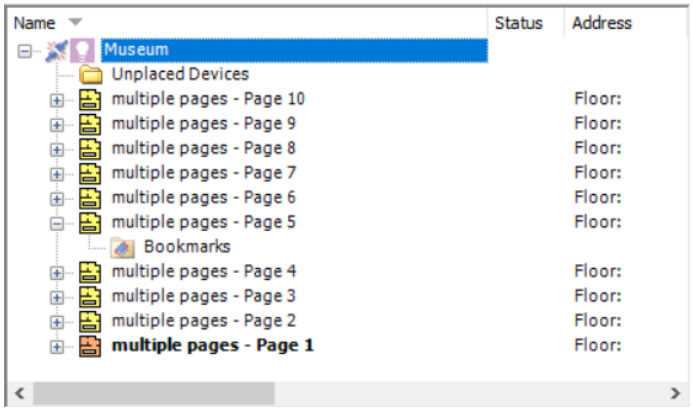
You can add plans by clicking Import plans from background images or click the File menu and select File > Import > Plans from Background Images, then select a PDF file (you can select more than one PDF file).

The Background Image tool lets you rotate the image clockwise and counterclockwise to the correct orientation if required.

For a multiple page PDF, you can import a page range or all pages. Clicking OK will import the pages and create a new floor plan in physical view for each imported page.

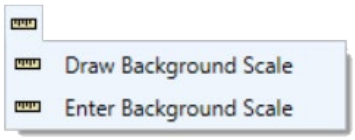
You can sort the plans into alphabetical order, either ascending or descending, by clicking on the Name heading or sort on other property headings once you have entered the information in the Floor Plan Properties Editor.



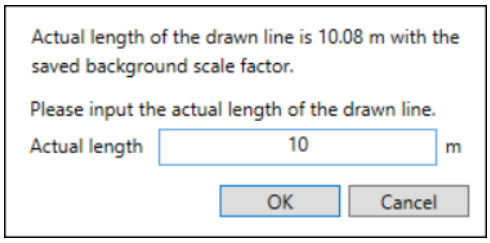


5 Define Scale

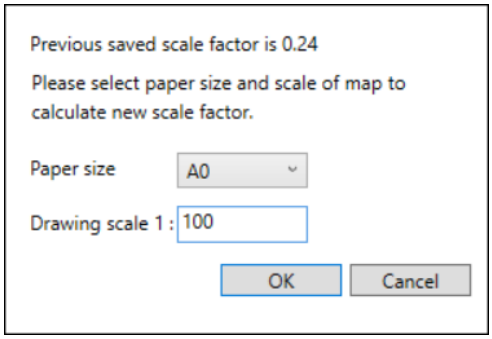
You can set the scale of each floor plan drawing, enabling you to estimate areas sizes and cable lengths. There are two methods for setting the plan scale:



- Draw a line and enter the background full-scale line length.



- Enter the background scale factor as stated on the plan.



6 Perimeter Wall

You can draw a perimeter on each floor plan to define the boundaries of the floor. This removes unnecessary details and speeds up searches. This perimeter wall is the Shape Recognition default search area as well as the location where circuit callouts are placed.

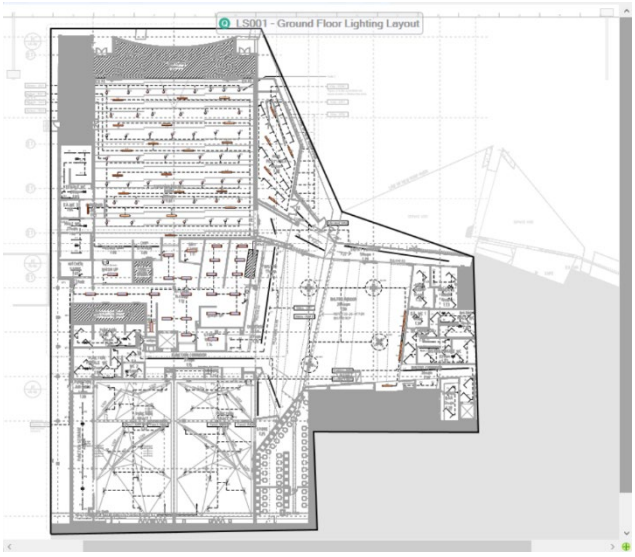
You can perform the following actions:

Draw Perimeter Wall

Edit Perimeter Wall

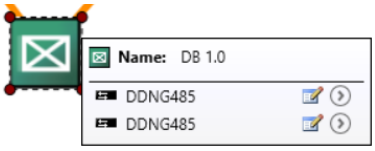
Clear Perimeter Wall

To draw the perimeter wall, click at each corner of the plan. Double-click to finish.



7 Add Distribution Boards

The location of a Distribution Board (DB) indicates where the wiring for each circuit originates.



Once you have manually added a DB to Physical view or by entering a name in the Callout properties, you should then place each DB on the floor plan.

Hovering the mouse pointer over the DB displays the DB name and the name of devices within the DB.

Add a Distribution Board:

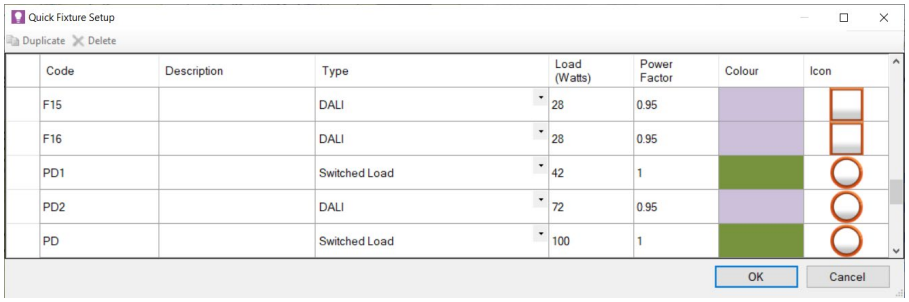
1. Click Show Floor Plan to open the floor plan where you want to place the DB.
2. Click Add distribution board on the physical view toolbar (if it hasn't already been created from the Callout properties).
3. Enter the DB name.
4. Click and drag the DB to place it on the floor plan.

8 Set up Fixtures

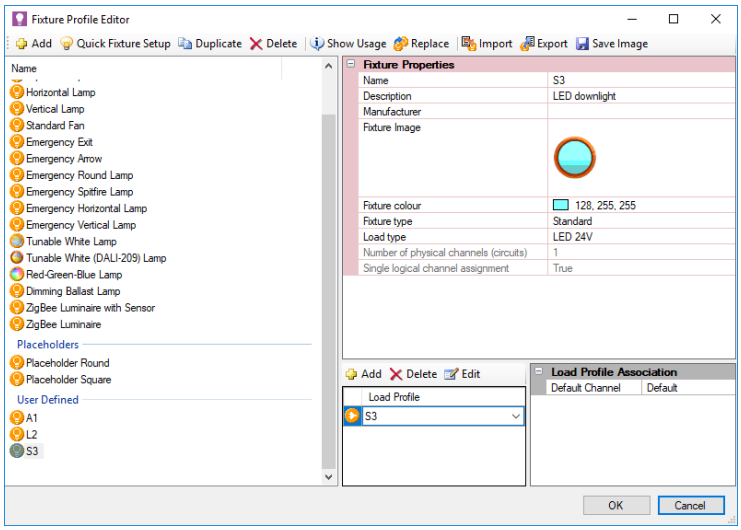
The Quick Fixture Setup window allows you to enter all your fixture profiles in a single table. You can do this either at the beginning of your quote or later when grouping the placeholder icons on the floor plan.

Quickly setup user-defined fixture profiles (recommended)

1. Click Quick Fixture Setup
2. Click in each in each cell or press F2 to enter the information into the table.
    - Code – Drawing ID
    - Description– Fixture profile description
    - Type– Control type
    - Load (Watts) – channel load in Watts
    - Power Factor – The active power divided by the apparent power.
    - Color– Fixture color
    - Icon– Fixture icon
3. You can click in the first column to select a row, to duplicate or delete that row
4. Click OK when complete.



Alternatively, you can add user defined fixtures profiles using the main Fixture Profile Editor. The Fixture Profiles Editor is available in the Properties window when you click the job name in Network View or Physical View.



It is recommended that while you are building your design, you regularly save the job by clicking File Save.

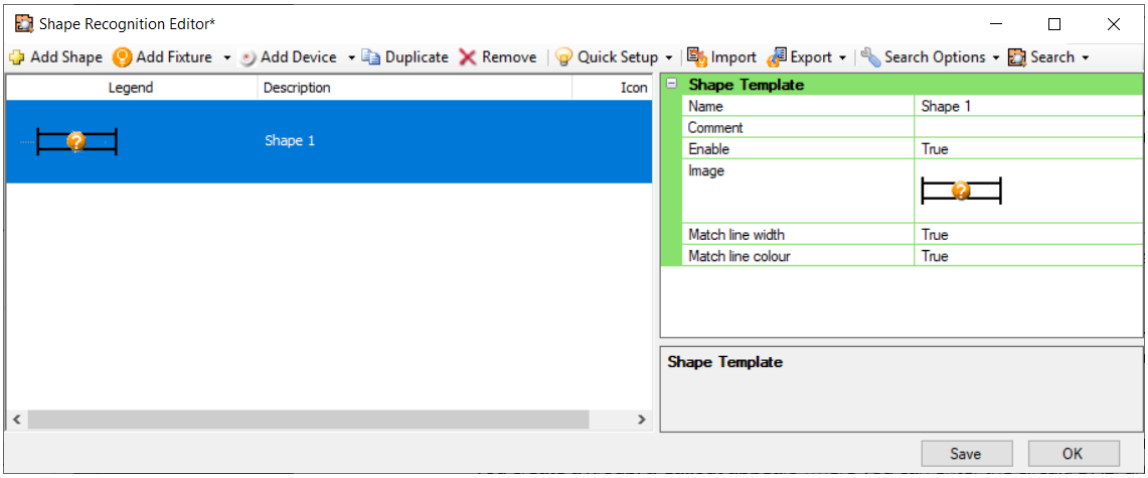
9 Place Fixtures

There are two ways to place fixture icons on the floor plan:

- Place fixture icons with the Shape Recognition Editor (SRE) by defining and searching for fixture shapes.
- Place fixture icons manually by selecting them from the fixture palette and clicking on the floor plan.

9.1 The Shape Recognition Editor

On the floor plan toolbar, click Open Shape Recognition Editor (SRE).



Before searching for shapes, you should review the floor plan drawings to find the legend.

While it is not always reliable, it is often possible to define shapes using the legend in the PDF. Alternatively, you can create a plan page to display the data or printout the legend page as a reference to help you identify which shapes to search for.

The SRE can search a floor plan for your defined shapes and automatically replace each discovered shape with a placeholder or with the defined fixture or device. If you do not find all the expected shapes you can redefine a shape and repeat the search until all icons are placed on the floor plan.

On the floor plan drawing, a shape can represent a:

- Fixture (actual or placeholder)
- Device (actual or placeholder for ceiling sensor, wall sensor, user interface)

Place holders are intended to allow the designer to make a note of there being a fixture, sensor, or UI on the plan without having to define the specific details of that item at that moment.

You can change the fixture placeholders to fixture icons later when grouping them into circuits/DALI universes. To add fixture profile information, right-click the placeholder on the floor plan and selecting Edit Properties.

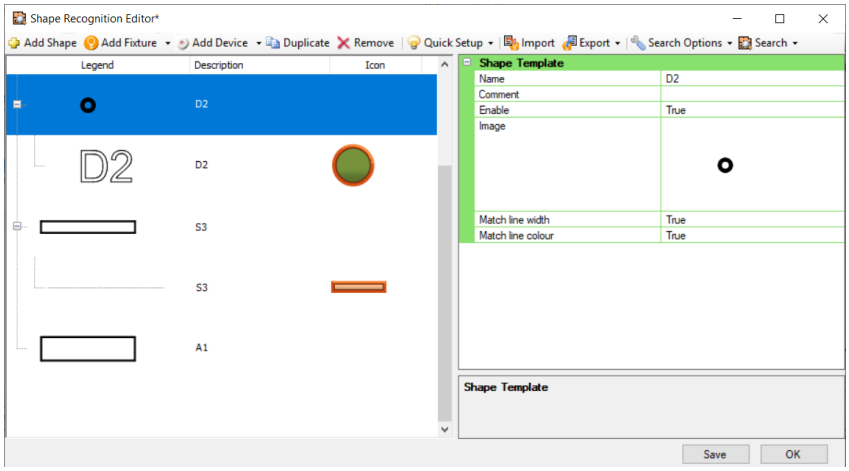
You can change the device placeholders to device icons later by attaching a device to the shape in the SRE and searching again or when selecting devices in the Hardware Selector.

It may be helpful to click Float Floor Plan Window (Ctrl+F9) and then maximize the floor plan window, so you can easily see items on the plan.

The shape search feature can find different shapes based on just the shape or the shape with some nearby text. It can then replace the identified shape with a placeholder icon or a fixture icon (if a fixture profile is added to the shape).

For example:

- Shape D2 has nearby text added to the shape definition and a fixture profile attached to the shape. The search will identify these shapes if they have this nearby text and replace them with the attached fixture icon.
- Shape S3 has no text added to the shape definition and a fixture profile attached to the shape. The search will identify these shapes and replace them with the attached fixture icon.
- Shape A1 has no text shape added to the shape definition and no fixture profile attached to the shape. The search will identify these shapes and replace them with a placeholder.



9.2 Defining fixture shapes

Define a shape:

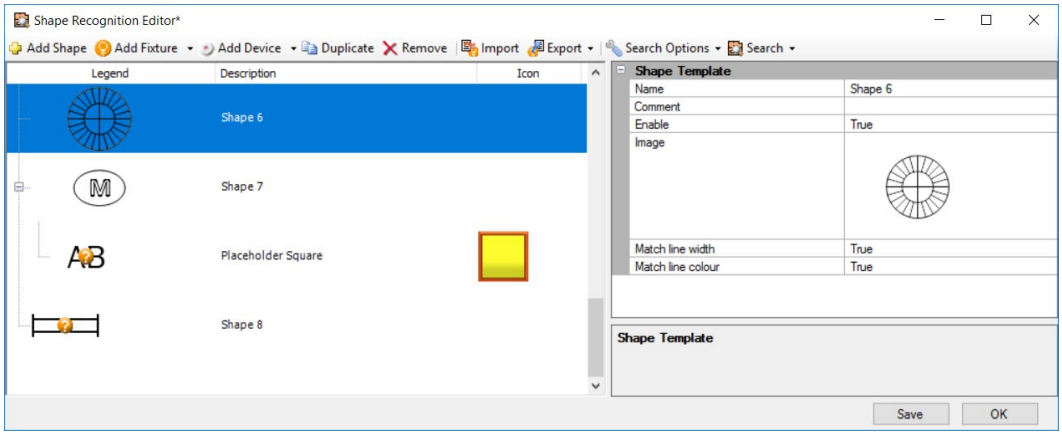
1. Click Add shape to add a new shape to the search list. This can be for a fixture or for a sensor, light switch or other 3rd party device. A new undefined shape is added to the list.
2. Double-click the undefined shape or alternatively, select the Image property on the right and click the Select shape button. The floor plan window is displayed.
3. Click and drag a box around a fixture to select it. The selected shape lines will appear thicker. See example below. Alternatively, you can hold down the Ctrl key to add individual lines or the Shift key to remove individual lines from the selected shape.

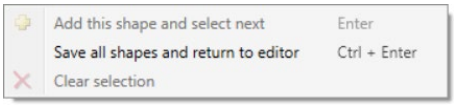
   If you have difficulty selecting a line where there are multiple lines, pressing the spacebar will select each line in turn.
4. Press Enter or double-click on white space to complete the shape selection. The Shape Recognition Editor reopens showing the defined shape in the legend column.

If a fixture drawing has hidden lines in another color, you can click and drag a rectangle around each line to select it, which will also select any hidden lines.

5. Repeat steps 1 to 4 to add each different fixture shape.



If you want to define more than one shape at a time on the plan, select Quick Setup > Select Multiple Shapes from Plan. Each shape you define will turn green. Right-click or press Ctrl+ Enter to save all shapes and return to the editor.

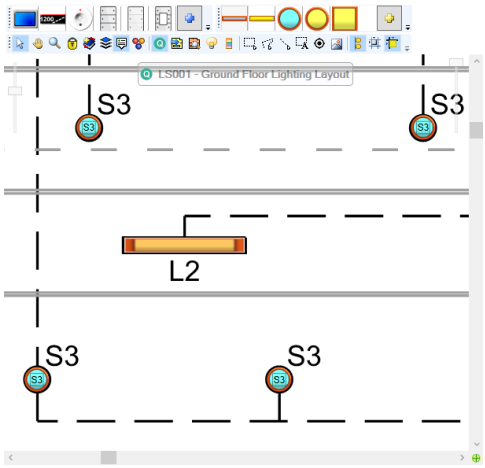


For best performance it is recommended to add as many shapes as possible before searching.

At this stage, performing a search will put a placeholder on the floor plan wherever it finds each defined shape. Later, you can select the fixtures to replace each placeholder when grouping them into circuits. This method is useful when different fixture types have a similar shape.

The SRE can find shapes more reliably when they are simpler. If you have different fixture types all with a similar shape, then it may be difficult for the SRE to differentiate between them. In this case it is faster to define a simple shape and add placeholders during the search. Then you can visually group and select the different fixture types on the floor plan.

Alternatively, if you have already created a user defined fixture profiles in the Quick Fixture Setup window, then you can attach a fixture to each shape. The search will then place a fixture icon on the floor plan wherever it finds your shape, instead of using a placeholder.

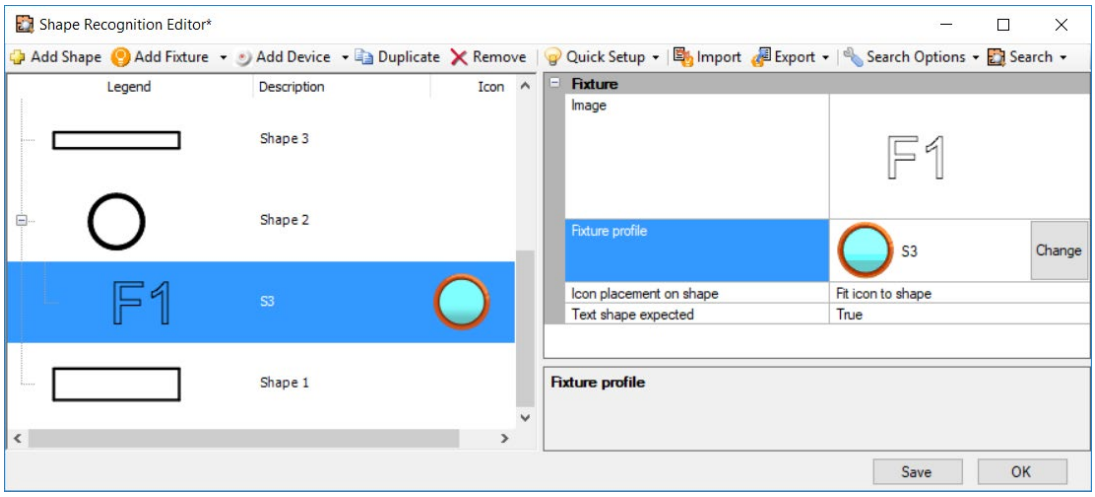


Add a fixture to a shape:

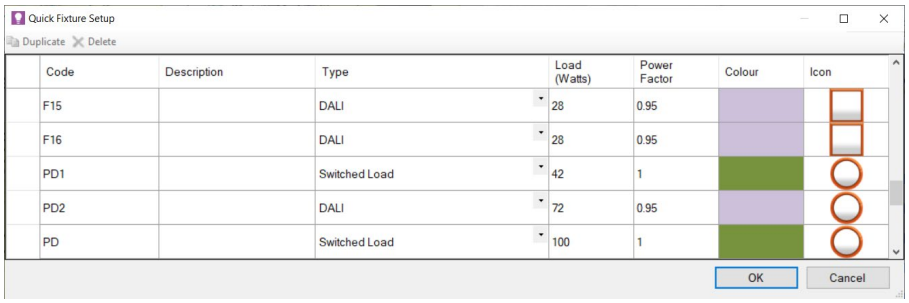
1. Click  Add Fixture with No Text Shape or With Text Shape. A fixture profile entry is added underneath the shape. If you selected, No Text Shape proceed to step 3.

2. If you have selected, With text Shape then double-click  to define the shape of the nearby text for your fixture or device. For example

3. Click the Fixture Profile property on the right and click the Change button to select the required fixture icon for the shape.



4. Add the details in the quick fixture setup window and click OK.



5. In the Shape Recognition Editor, click the Save button to save your shape definitions to the job.

9.3 Searching for fixture shapes

After defining your shapes, the Shape Recognition Editor can search a floor plan or part of a floor plan for all the shapes in your list.

Search for shapes:

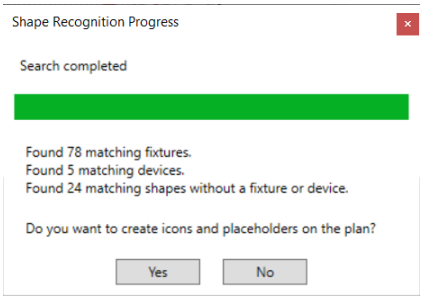
1. Select the shapes you want to include in the search. You can select multiple shapes by holding the Ctrl key. To be discovered, the shape must be an exact match of the same shape, however, it can be a different scale or orientation.
2. From the  Search dropdown list, select one of the following options.
   - Search All Shapes
   - Search Selected Shapes
   - Search All Shapes (within perimeter wall)
   - Search Selected Shapes (within perimeter wall)

   After selecting a search option, the floor plan will open.
3. If you selected Search All Shapes or Search Selected Shapes, click and drag a rectangle to select the region of the floor plan to search (you may need to zoom out). If searching the whole floor plan, exclude any tables and text around the margin.

   If you selected a search within the perimeter wall, then the search will automatically start.
4. When the search is complete it will show the number of:
   - matching fixtures
   - matching devices
   - matching shapes without a fixture or device.

   You are asked “Do you want to create icons and placeholders on the plan?”

   Click the Yes button to create the matching fixture, device, or placeholder icons on the plan or
   click the No button to leave the floor plan unchanged.



- Placeholders are available for both fixtures and devices.
- For large floor plans you can change the maximum zoom by selecting Tools > Settings > Job settings > floor plan > Max zoom.
- In the Shape Recognition Editor Legend list, the searched for shape must be aligned to 90 degrees (horizontal or vertical) to be located on the floor plan. The shape on the floorplan can have any angle of rotation.
- If some new placeholders are not created it is likely because they would be on top of another placeholder or because a placeholder already exists in that location.
- Locking the canvas stops shape recognition.
- In the Shape Recognition Editor, click the Save button to save the shape definitions to the job.

The Shape Recognition Editor lets you perform the following actions:


Add Shape – adds a new undefined shape and allows you to define the shape from an item on the floor plan.


Add Fixture – attaches a fixture profile to the shape (with or without nearby text).


Add Device – attaches a device or placeholder to the shape (with or without nearby text).


Duplicate an item – adds a copy of the selected item to the list.


Remove an item – deletes an item from the list.


Select Shape from Plan – enables you to define a shape from the plan.


Rotate Shape Left


Rotate Shape Right


Rotate Shape to Horizontal

Expand All

Collapse All


Quick Setup – Select Multiple Shapes from Plan.


Import shapes – loads shapes from a stx file that was saved from a previous job.


Export shapes – saves shapes to a stx file for reuse in another job.


Search options – Allows you to add criteria to the search function for scaling, line width or line color.


Search for shapes – Searches for all shapes or selected shapes on the floorplan.

9.4 Manually placing fixture icons

Instead of using the Shape Recognition Editor, you can always manually add placeholders or fixtures to the floor plan from the fixture palette. However, this is not recommended when there are a high number of fixtures on your floor plan drawing.

Right-click on a fixture icon and select Save Icon Size and Rotation or Copy and Paste fixture icons to reduce the time taken to manually place icons.

The Design Summary in the lower part of the Physical View keeps count of all the fixtures, circuits, and devices in your quote. You can easily identify a group of objects on the floor plan by clicking an object in the Design Summary.

10 Group fixtures

Select multiple fixtures or draw lines between fixtures to group them into circuits or DALI universes.

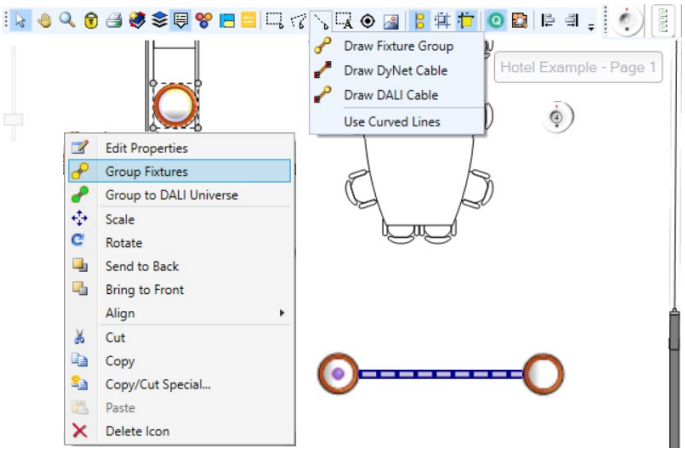
Floor Plan window hot keys (when in pointer mode):

A = Draw Area
C = Group fixtures to Circuit line
D = Group fixtures to DALI line
N = Group devices to DyNet cable line
R = Rotate icons
S = Scale icons

10.1 Circuits and DALI universes

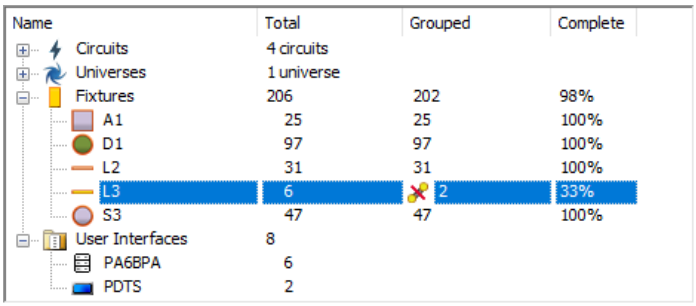
Fixtures can be grouped into circuits or DALI universes by either:

1. Selecting one or more fixtures, then from the right click menu selecting Group Fixtures (shortcut key C) or Group to DALI universe (shortcut key D). Multiple fixtures can be selected by holding down the Ctrl key or by drawing a box around multiple fixtures.
2. Selecting the Draw Fixture Group or Draw DALI Cable tool under the Draw line icon on the floor plan toolbar and drawing lines between the fixtures.

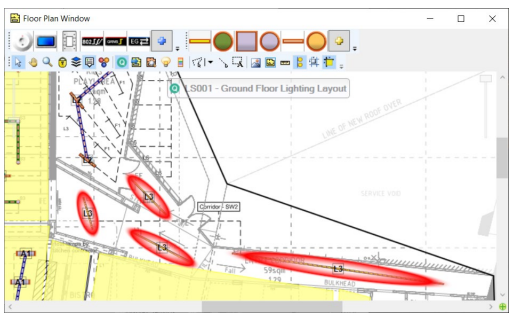


A DALI cable can be used for DALI broadcast or DALI addressable control. If a DALI cable-line spans multiple areas, it will be assumed to be DALI addressable.

in the Design Summary, under Fixtures, select the Ungrouped icon for a fixture type, to highlight the remaining ungrouped fixtures on the floor plan.



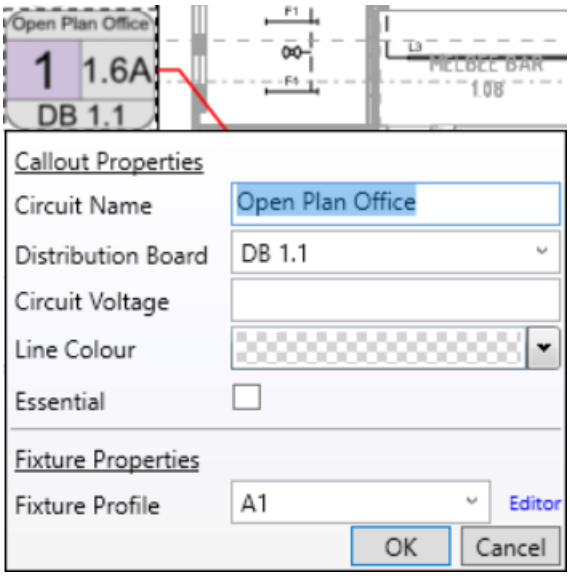
Name	Total	Grouped	Complete
Circuits	4 circuits		
Universes	1 universe		
Fixtures	206	202	98%
A1	25	25	100%
D1	97	97	100%
L2	31	31	100%
L3	6	2	33%
S3	47	47	100%
User Interfaces	8		
PA6BPA	6		
PDTS	2		

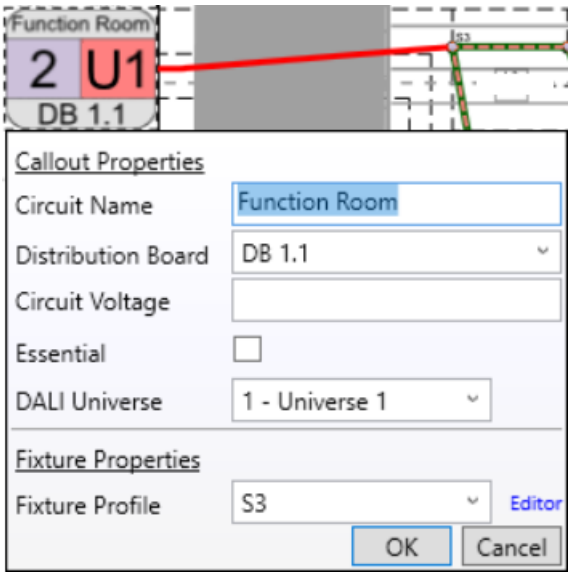


10.2 Callouts

Once fixtures have been grouped into a circuit or a DALI universe, then a callout for the circuit or universe will appear on the floor plan.

Enter the Callout Properties and click OK.





If you enter a new distribution board name, it will be created in the physical view when you click OK. Remember to place the DBs on the floor plan.

If you enter a new Fixture Profile name and click OK, the Quick Fixture Setup opens to prompt you to fill in the details for the new fixture.

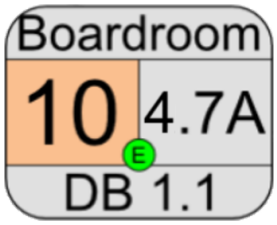
Right-click to scale the Callout or edit the Callout properties.

The Callout displays information about the circuit or universe.

Circuit Name

Circuit Number

Distribution Board

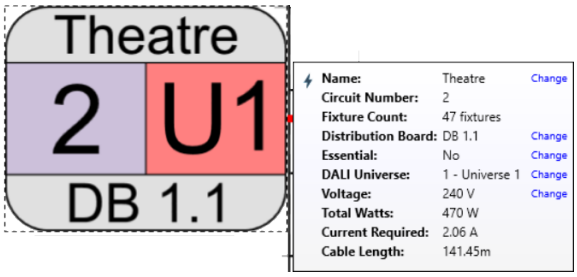


Current Rating or DALI Universe

Essential Lighting symbol

The circuit name is optional and be enabled from the Tools menu under:
Settings > Job Settings > Floor Plan > Callouts > Show circuit name in callout icon.

Hovering the mouse pointer over the callout displays the callout properties.

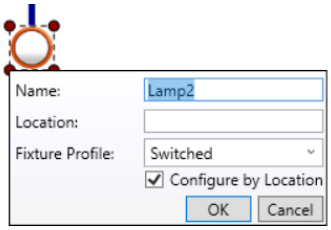


The load type determines:

- the dashed line color on the cable.
- the circuit number background color on the left side of the callout.

Color	Load type
White	Unset
Light violet-grey	DALI DSI 1-10V
Pale Pink	DMX
Very pale red	Incandescent (no driver) LED (LE compatible electronic driver) Halogen (LE compatible electronic driver)
Light Orange	LED (TE compatible electronic driver) Halogen (TE compatible electronic driver)
Pale azure	LED (LE/TE compatible electronic driver) Halogen (LE/TE compatible electronic driver)
Light cyan-blue	LED PWM
Strong green	Switched Load Motor
Brilliant green	Ceiling Fan
Pale yellow	Curtains

10.3 Select Fixture Profiles



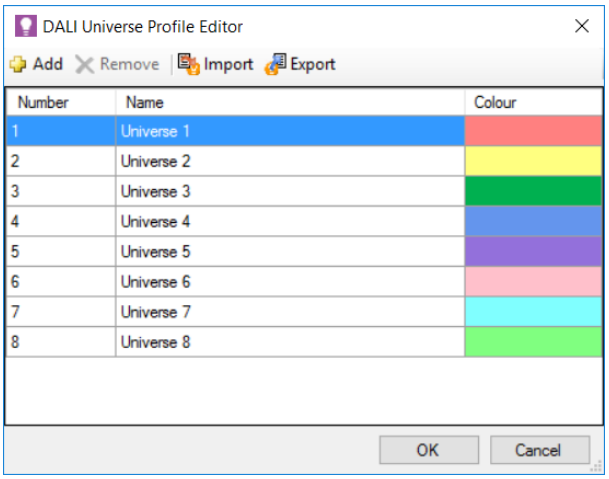
Right-click the Callout and select Edit Properties to select or enter the fixture profile for the group. This is very useful if placeholders were added by the Shape Recognition Editor and the cable contains a single type of fixture.

If the cable contains different types of fixtures then the fixtures profiles can be easily set by multi-selecting each placeholder or type of fixture, right-clicking and selecting Edit Properties to select the fixture profile.

New fixture profiles can be created in either the Callout or Fixture properties dialog box by simply entering a new name. The fixture profile properties can be modified in the Fixture Profile Editor or in the Quick Fixture Setup window.

10.4 Manage DALI Universes

The name and color of DALI universes can be changed from the DALI Universe Profile Editor. From the DALI Universe callout properties, click the Editor link to open the DALI Universe Profile Editor. The color is displayed on the right side of a DALI universe callout.



11 Place devices

11.1 Defining device shapes

Select each plan to place devices such as gateways, user interfaces and sensors. These can be added automatically for PDF floor plans by opening the Shape Recognition Editor from the floor plan toolbar.

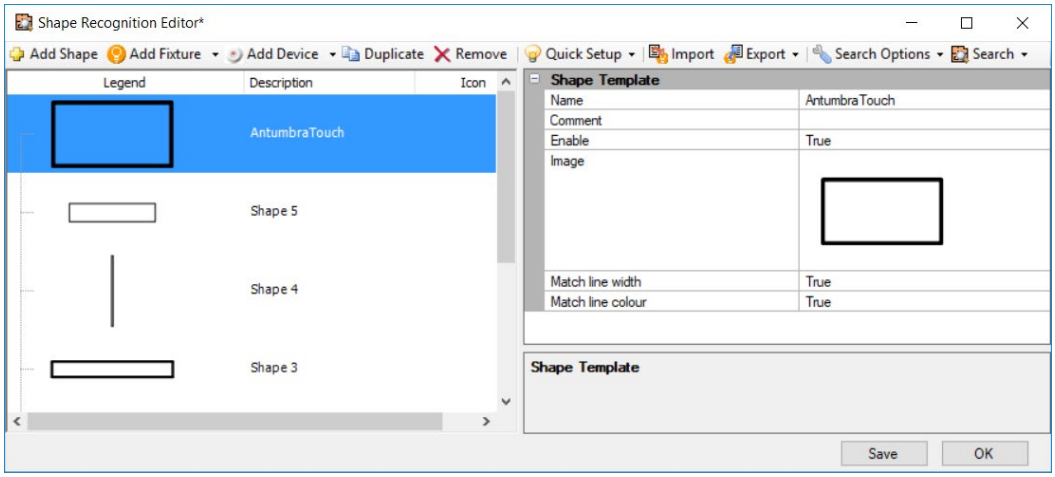
Define a shape:

1. Click Add shape to add a new shape to the search list. This can be for a fixture or for a sensor, light switch, or other 3rd party device. A new undefined shape is added to the list.
2. Double-click the undefined shape or alternatively, select the Image property on the right and click the Select shape button. The floor plan window is displayed.
3. Click and drag a box around a device to select it. The selected shape lines will appear thicker. See example below. Alternatively, you can hold down the Ctrl key to add individual lines or the Shift key to remove individual lines from the selected shape.

If you have difficulty selecting a line where there are multiple lines, pressing the spacebar will select each line in turn.

4. Press Enter or double click on white space to complete the shape selection. The Shape Recognition Editor reopens showing the defined shape in the legend column.

- If a device drawing has hidden lines in another color, you can click and drag a rectangle around each line to select it which will also select any hidden lines.
- By changing the orientation of the shape you can change the orientation of the placed device. Right-click the shape to rotate.



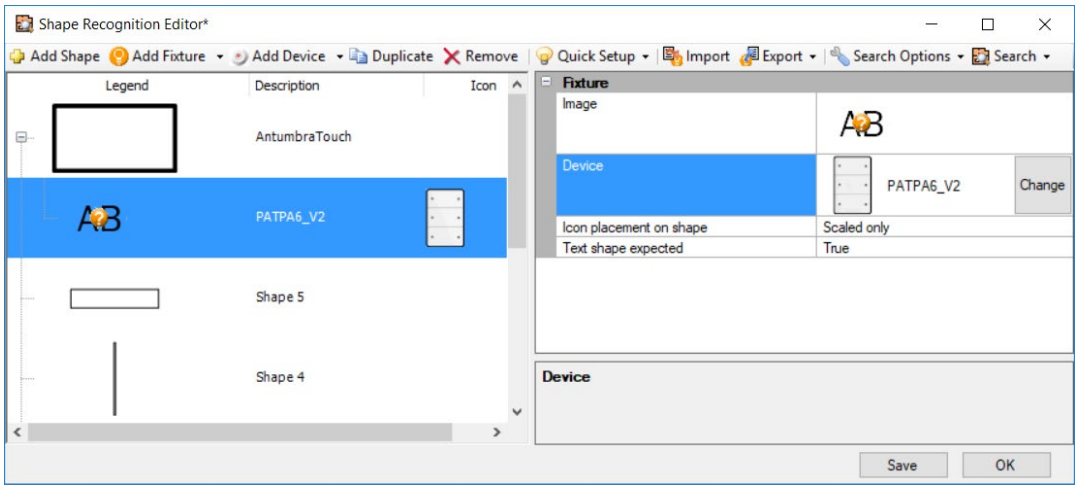
5. Click Add Device with No Text Shape or With Text Shape. A Device entry is added underneath the shape.

   Or you can select Placeholder > Ceiling Sensor, Wall Sensor, or User Interface. A placeholder entry is added underneath the shape.

   If you selected No Text Shape or Placeholder, proceed to step 7.

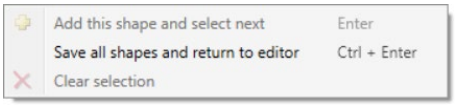
6. If you have selected With text Shape, then double-click to define the shape of the nearby text for your fixture or device. For example:

7. Click the Device property on the right and click the Change button to select the device icon or placeholder icon.



8. Repeat steps 1 to 7 for each different type of device.
9. Click the Save button to save your shape definitions to the job.

If you want to define more than one shape at a time on the plan, select Quick Setup > Select Multiple Shapes from Plan. Each shape you define will turn green. Right-click or press Ctrl+ Enter to save all shapes and return to the editor.



For best performance it is recommended to add as many shapes as possible before searching.

11.2 Searching for device shapes

After defining your shapes, the Shape Recognition Editor can search a floor plan or part of a floor plan for all the shapes in your list. Make sure you have added a device icon or placeholder icon to a shape before starting the search (otherwise the search will not know if the shape is a fixture or a device).

Search for shapes:

1. Select the shapes you want to include in the search. You can select multiple shapes by holding the Ctrl key. To be discovered, the shape must be an exact match of the same shape, however, it can be a different scale or orientation.

5. From the  Search dropdown list, select one of the following options.

    - Search All Shapes
    - Search Selected Shapes
    - Search All Shapes (within perimeter wall)
    - Search Selected Shapes (within perimeter wall)

    After selecting a search option, the floor plan will open.

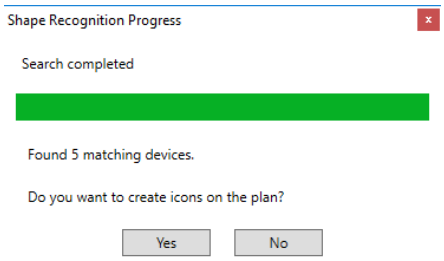
6. If you selected Search All Shapes or Search Selected Shapes, click and drag a rectangle to select the region of the floor plan to search (you may need to zoom out). If searching the whole floor plan, exclude any tables and text around the margin.

    If you selected a search within the perimeter wall, then the search will automatically start.

7. When the search is complete it will show the number of matching devices:

    You are asked “Do you want to create icons on the plan?”

    Click the Yes button to create the matching device icons or placeholder icons on the plan or click the No button to leave the floor plan unchanged.



The total numbers of each device type can be seen in the summary window in the lower half of the physical view.

11.3 Manually placing device icons

Instead of using the Shape Recognition Editor, you can always manually add devices or placeholders to the floor plan from the Device palette. However, this is not recommended when there are a high number of devices on your floor plan drawing.

Additional devices such gateways and other integration devices can also be added manually.

Right-click on a device icon and select Save Icon Size and Rotation or Copy and Paste fixture icons to reduce the time taken to manually place icons.

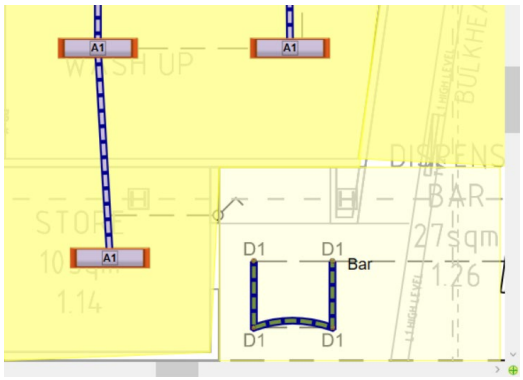
The Design Summary in the lower part of the Physical View keeps count of all the fixtures, circuits, devices and placeholders in your quote. You can easily select a group of objects on the floor plan by clicking an object in the Design Summary.

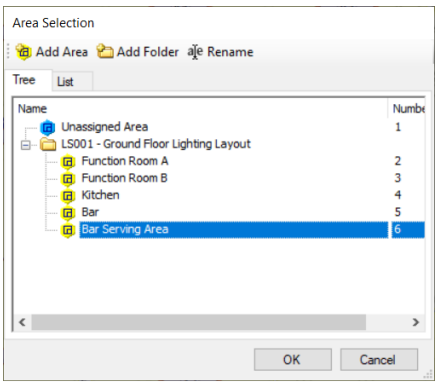
12 Draw Area

To provide a visual indication of completed quoting tasks on the floor plan, it is recommended to draw an Area Region around the completed fixtures and devices. Selected areas are displayed in a paler yellow color.

Draw Area Region:

1. Select the Draw Area Region tool (shortcut key A).
2. Click at each point along the walls of the area to create a shape that fills the room. Double-click to finish. The Area Selection dialog box opens.
3. Enter the Area Name and click the OK button.





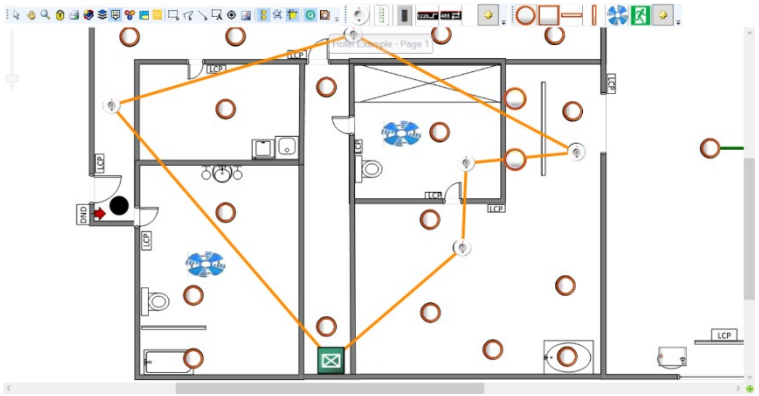
When you select an area and click Job Notes, the floor and area name are automatically inserted into the next line as a reference.

13 Add DyNet cable

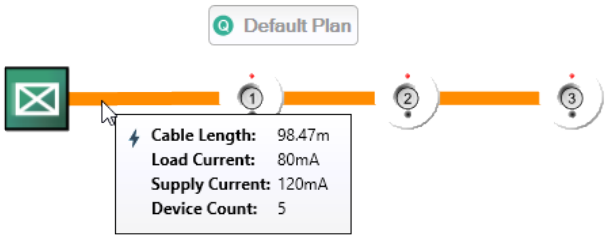
Once you have placed your device icons you can draw the DyNet cable between them and the nearest distribution board (shortcut key N). DyNet cables can be drawn to connect each Dynalite device in a daisy chain arrangement. This determines the order of devices in the single line reports.

Draw DyNet Cable:

1. From the Draw Line tool select Draw DyNet Cable.
2. Click the distribution board to start drawing the DyNet line
3. Click on each device in the run
4. Return the line to the distribution board when complete.
5. Double-click to stop drawing.



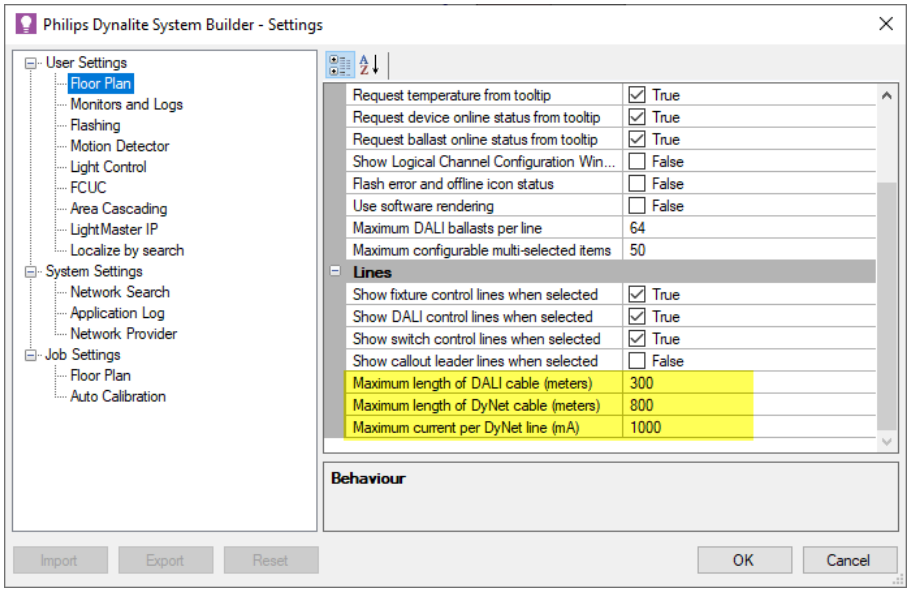
On the RS-485 cable, controllers supply current. Sensors and user Interfaces consumer current. The line tooltip shows current and device count (total count including devices in the DB).



Ensure there is sufficient DyNet current to power the user interfaces and sensors by adding a power supply to the DyNet line, if required. Do not exceed the maximum cable current of 2 A.

When drawing a DyNet cable line through a DDNI485 the line is split into two and each part is treated separately

The maximum cable length and current can be configured in user settings

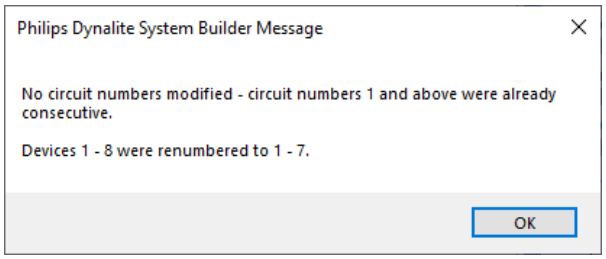


14 Renumber Circuits and Devices

Renumbering the circuits and devices sequentially makes reports easier to understand. You have two options:

- Renumber all starting from 1. This is best for the first revision of a design.
- Renumber only the circuits and devices that have been added since the last time the renumber function was run. This is useful for revisions when you do not want to affect numbers from earlier revisions.

For example, if an interface is not required, you can delete it and renumber the Device location sequence for the remaining devices.



15 Select Hardware

15.1 Producing a bill of materials

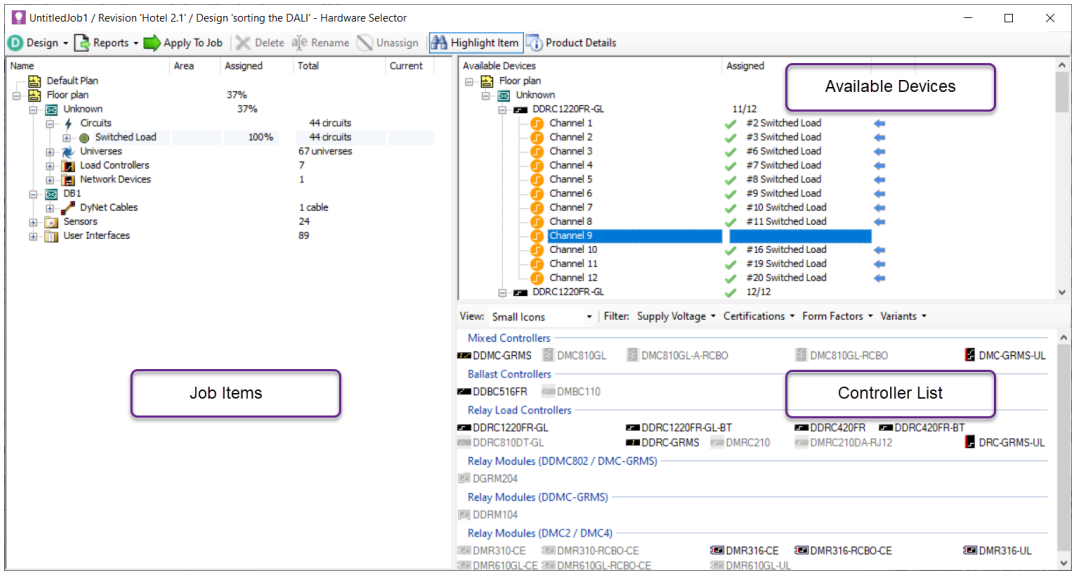
The Hardware Selector window aids in assigning circuits and universes to compatible load controllers to create a bill of materials. When hardware selection is complete, you can export a CSV spreadsheet containing a total list of devices for your design.

Alternatively, you can export a CSV spreadsheet containing a summary of all the circuits and universes in the job. This can be used to manually determine the load controllers required in each distribution board.

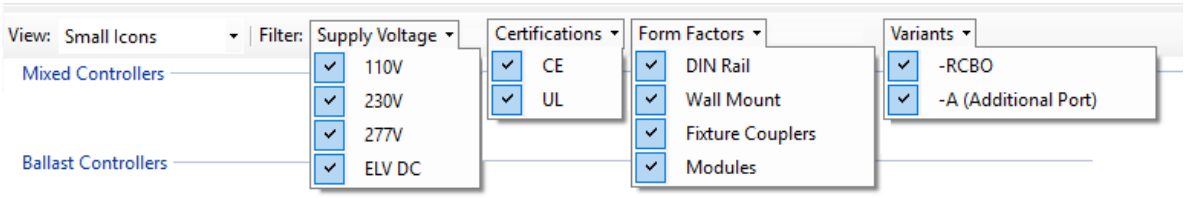
Click Show Hardware Selector, or open the Design Assistant and under Select Hardware, click the Open Hardware Selector Window link

The Hardware Selector has the following three sections:

- Job Items
- Available Devices
- Controller List

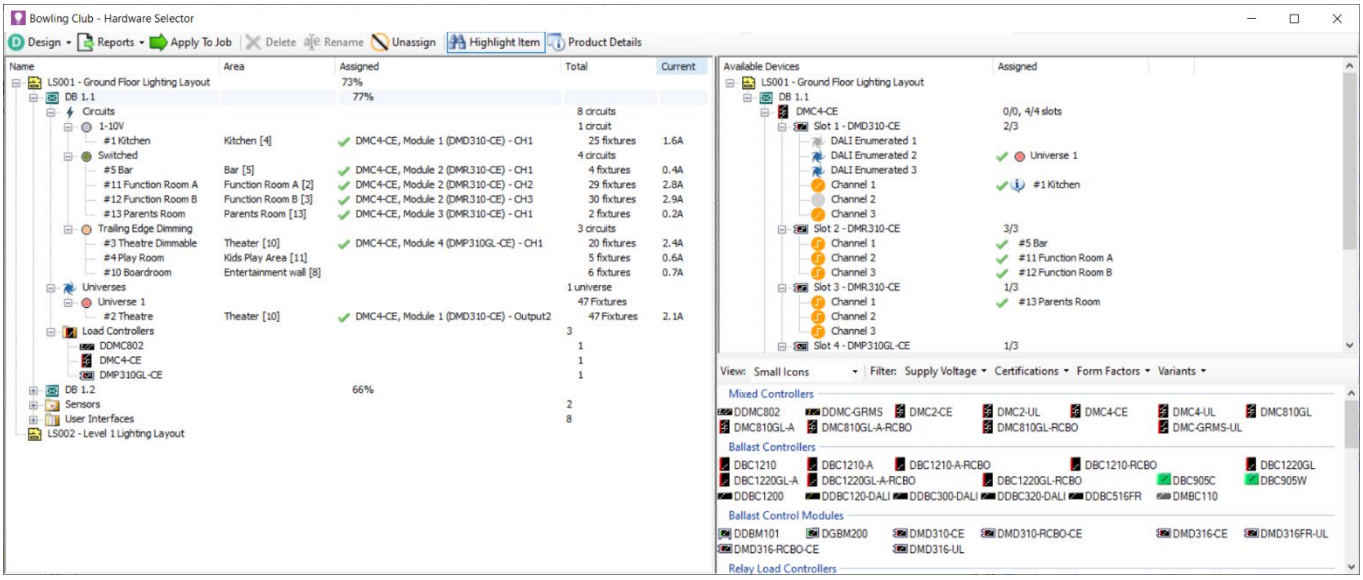


The controller list has a filter tool where you can filter out the controllers not applicable to your country.



Assign Circuits and Universes to a controller:

1. Expand the items under a DB
2. Under circuits or universes, select a load type. This will filter the controller list to only show compatible controllers.
3. Select a load type or a selection of circuits or universes. The controller list only displays compatible devices for your selection.
4. Click and drag your selection onto a controller in the Controllers list. The controller and the assigned circuits or universes now appear in the Available Devices list.
5. If a controller still has spare channels you can continue to drag additional circuits or universes until all controller channels are assigned. An assigned circuit or universe is marked with a green tick.
6. If you are intending to use control modules, these must be placed into an empty slot inside a multipurpose (mixed) controller. Select a DB and double-click or click and drag a controller, from the mixed controller list up to the available devices list. You can then drag a module with an assigned circuit into an empty slot in the controller.
7. Continue to assign remaining circuits and universes until they are all assigned to controllers.



If a universe straddles more than one area, then it must use DALI addressing. To assign these loads to a controller, click and drag the relevant universe icon onto a DALI addressing controller.

Depending on the selected protocol, the following loads can be assigned to a signal controller output:

- 1-10 V, DSI, DALI Broadcast loads can be assigned to a channel
- DALI enumerated loads can be assigned to a universe.

Available Device icons:

 Distribution Board

 DIN rail controller

 Wall mounted controller

 Empty DIN rail controller horizontal slot

 Populated DIN rail controller horizontal slot

 Empty DIN rail controller vertical slot

 Populated DIN rail controller vertical slot

 Empty Wall-mounted controller slot

 Populated Wall-mounted controller slot

 Unavailable universe or partial universe (galaxy)

 Available universe or partial universe (galaxy)

 Incompatible channel for the selected load type

 Unavailable Channel

 Available Channel

 Selected circuit or universe

 Assigned circuit or universe

 Assignment Information note

 Assignment error

- Double-click a controller to copy it to the Available Devices list.
- Mouse over an information icon and error icon to display tooltips with more information.
- Keep the Product Details window open to display information on the selected device.

15.2 Finalizing the Design

The Hardware Selector menu provides the following options to finalize your quote.

Design	
New	From the Design menu you can start a new design, open a design, save your design, save a different version of your design, and remove saved designs. Designs are only saved in the Job file, so to save your designs, you must also save the job file.
Open	
Save	
Save As...	
Remove	
Reports	
Warnings and Disclaimers	You can export a list of the channel notes and disclaimers.
Distribution Board Totals	The Reports menu allows you to select different bill of materials spreadsheets for the distribution board, the floor plan or for the entire job. Before exporting you will receive a warning notification if there are unresolved problems with the design.
Plan Totals	
Job totals	
Apply to Job	Creates the controllers and applies all the channel assignments to the job.
Delete	Deletes a controller from the Available Devices list.
Rename	Enables you to rename the selected circuit or universe.
Unassign	Unassigns a circuit or universe from a controller.
Highlight Item	Highlights the selected item or items under it on the floor plan.
Product Details	Shows the selected product details in a separate window.

16 Generate reports

You can use the following reports to help produce a Bill of Materials for the design:

1. **Circuit Summary Report** – Provides the total number of each circuit type and DALI universes per distribution board and floor plan.
2. **Product Summary Report** – Provides the total number of each device type in the project.
3. **Fixture Summary Report** – Provides the total number of each fixture type in the project.
4. **Plan Summary Report** – Provides the total number of devices and fixtures in the project per floor plan.

17 Produce Documentation

You can use the following documents for installation and commissioning:

1. **Single Line Report** – Provides a single line diagram of all connected devices. Devices are grouped under network gateways. The order of devices is determined by the Device location sequence property. This can either be set manually under Device Properties or by drawing DyNet cable lines on the floor plan.
2. **Single Line with Circuits Report** – The same as the Single Line report but also showing the circuit names for any load controllers
3. **Load Schedule Report** – Provides a list of all load controllers, the name, output type and logical area of each of circuit under each load controller.
4. **Export Floor Plan to PDF** – Allows the selected floor plan to be exported to PDF. The floor plan layers to be exported can be fully configured.

Philips Dynalite

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