

interact

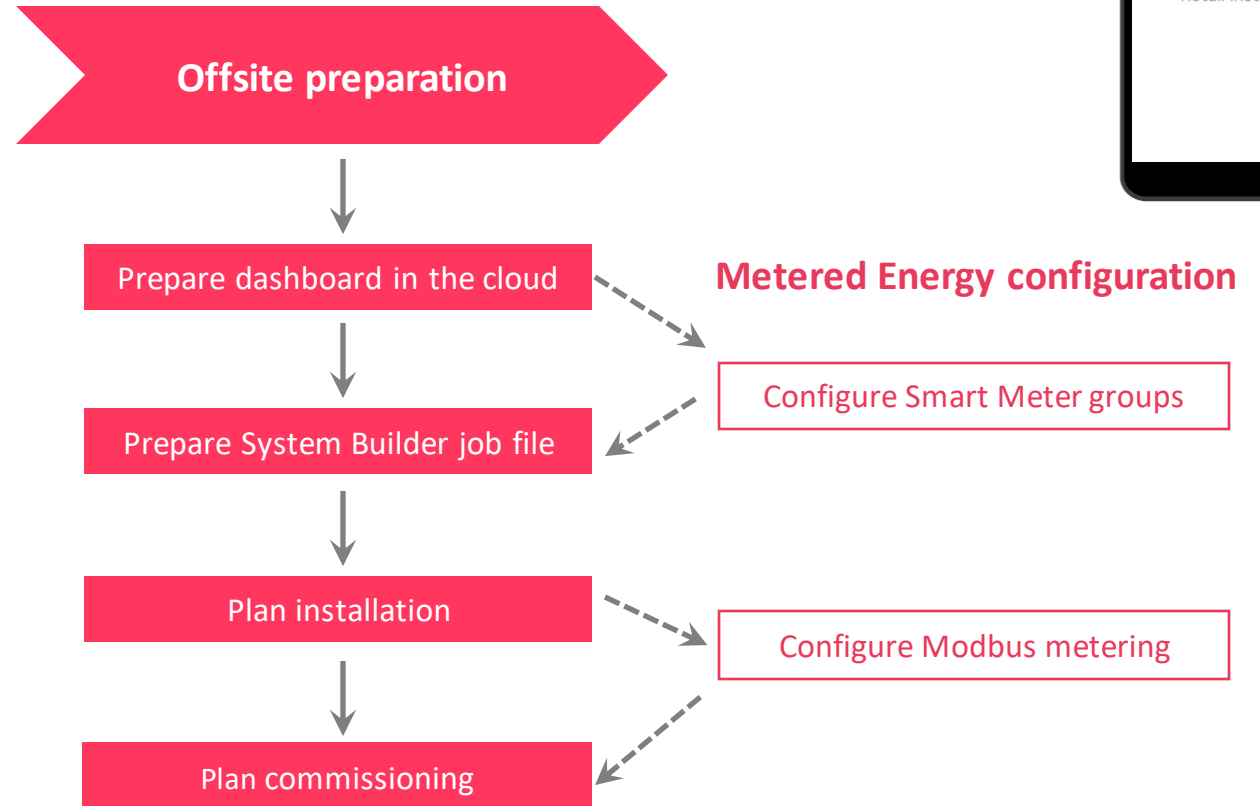
Commissioning: offsite preparation

Architecture FLX - Multisite

Learning objectives | Multisite offsite preparation

At the end of this lesson, you should be able to:

- Describe the steps required for the off-site commissioning process.
- Be familiarized with the tools needed for online commissioning.



Multisite offsite preparation | Naming convention alignment



It is extremely important to keep consistent naming convention, during entire preparation process.

The naming convention covers the Areas, Child Areas, Scenes and Logical Channels.

The convention is first aligned with the customer by means of the **Project Template** form, and defined per customer, not per store or format.

Then, the naming is being used during preparation of the Dashboard in the cloud, and later-on mirrored to the System Builder configuration.

Project Template form

Area 1

Sales Floor #2

Define Child areas and Logical channels on page 7

Area 1 scenes

Trading #1

Stocking #2

Cleaning #3

Trading Eco #4

All Off #5

Hello #6

Area 2

Back of House #3

Define Child areas and Logical channels on page 11

Area 2 scenes

Trading #1

Stocking #2

Cleaning #3

Trading Eco #4

All Off #5

Area 3

Outdoor #4

Define Child areas and Logical channels on page 13

Area 3 scenes

All ON, Park D/N #1

Sign On, Park+Fac D/N #2

All D/N #3

All Off #4

Dashboard – Cloud configuration

Name	Scenes
Sales Floor 7 nested areas	Trading Stocking Cleaning Trading Eco All Off Hello
Back of House 3 nested areas	Trading Stocking Cleaning Trading Eco All Off
Outdoor 2 nested areas	All ON, Park D/N Sign On, Park+Fac D/N All D/N All Off

System Builder

Name	Number
IAR Multisite	
Unassigned Area	A1
Cash Registers	A21
Sales Floor	A2
Back of House	A3
Outdoor	A4
Main Sales Floor	A22
Bakery	A23
Fresh Food	A24

Num	Preset Name
	Active Levels
1	Trading
2	Stocking
3	Cleaning
4	Trading Eco
5	All Off
6	Hello

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**Prepare dashboard
in the cloud**

Architecture FLX - Multisite

Interact Cloud | Prepare dashboard in the cloud

Multiple web browsers support the usage of the IAR Retail dashboard.



Google Chrome, Microsoft Edge, Mozilla Firefox, Apple Safari.

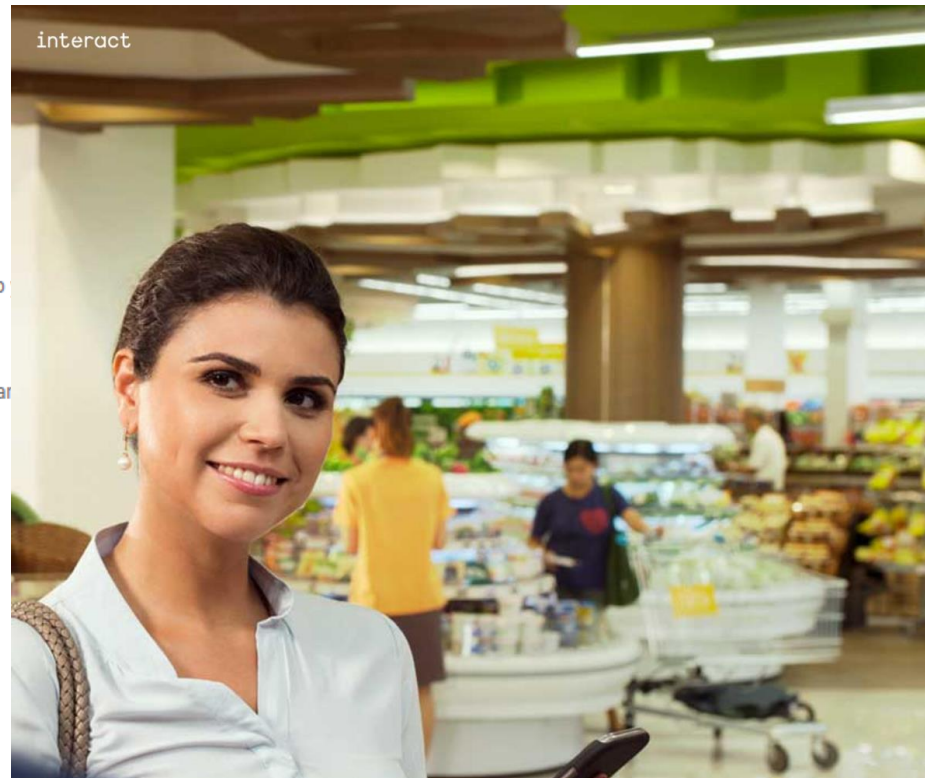
1. In the browser settings, change the cookies setting to **Allow all cookies**
2. Browse to the web page with the address: www.eu.retail.interact-lighting.com
3. Login and follow the authentication steps.



General settings

☒ Allow all cookies

- 1  Sites can use cookies to improve your browsing experience, for example, to keep to remember items in your shopping cart
-  Sites can use cookies to see your browsing activity across different sites, for example to personalize ads



Log in

Interact Multisite &
Indoor Navigation

Log in

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English

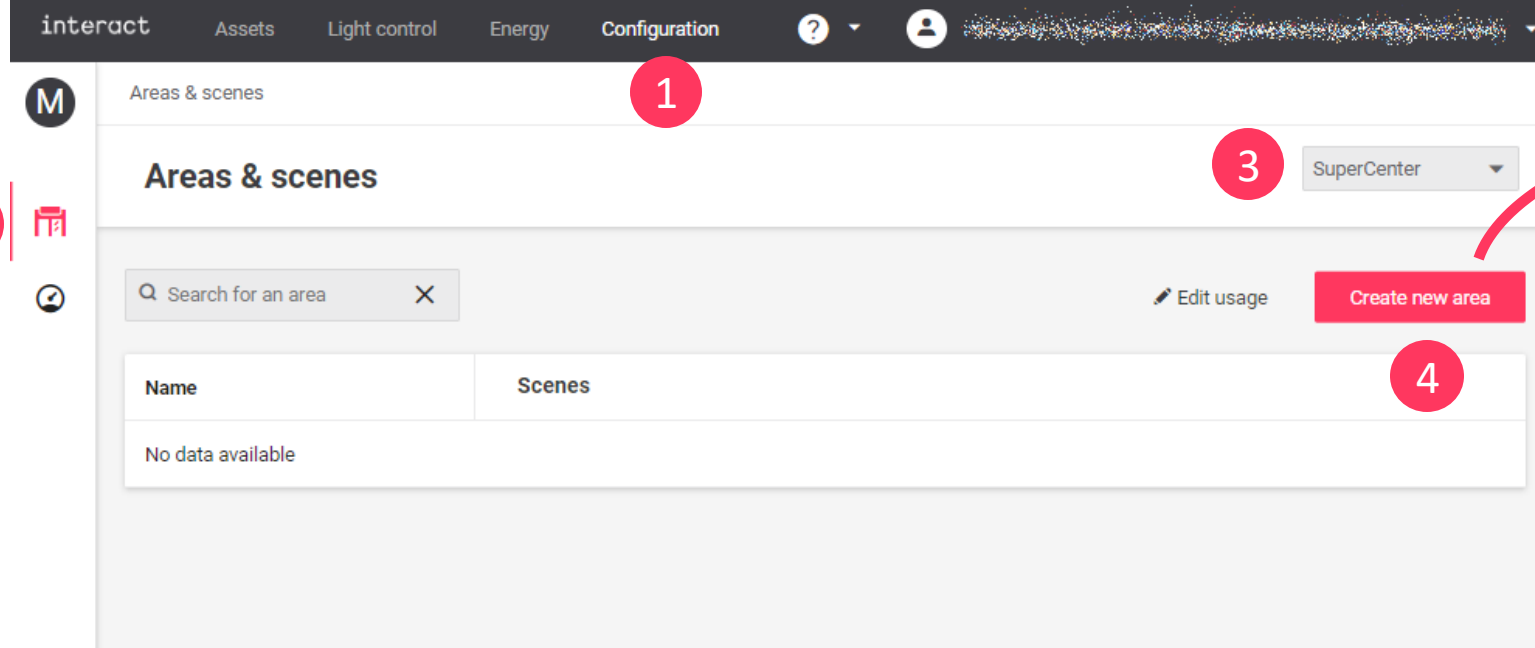
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Interact Cloud | Add parent areas

1. In the top menu, click **Configuration**
2. On the left pane, select **Area & Scenes**
3. Select **Format** or **None**
4. Click **Create new area**
5. Enter the **Parent Area name** and **ID** (align with Project Template form), and press **Save**
6. Repeat for all **Parent Areas**

Optionally enable **Day & Night Mode**

Parent Area ID alignment is suggested to be consecutive (Area IDs 2, 3, 4....), starting from ID 2

**Create new area**

Enter the area ID

2

Enter the area name

Sales Floor

☐ **Day & Night Mode**

Day and night mode allows you to set a different light level during the day (after sunrise) and at night (after sunset).

The day and night mode will be activated at the right time automatically by the system.

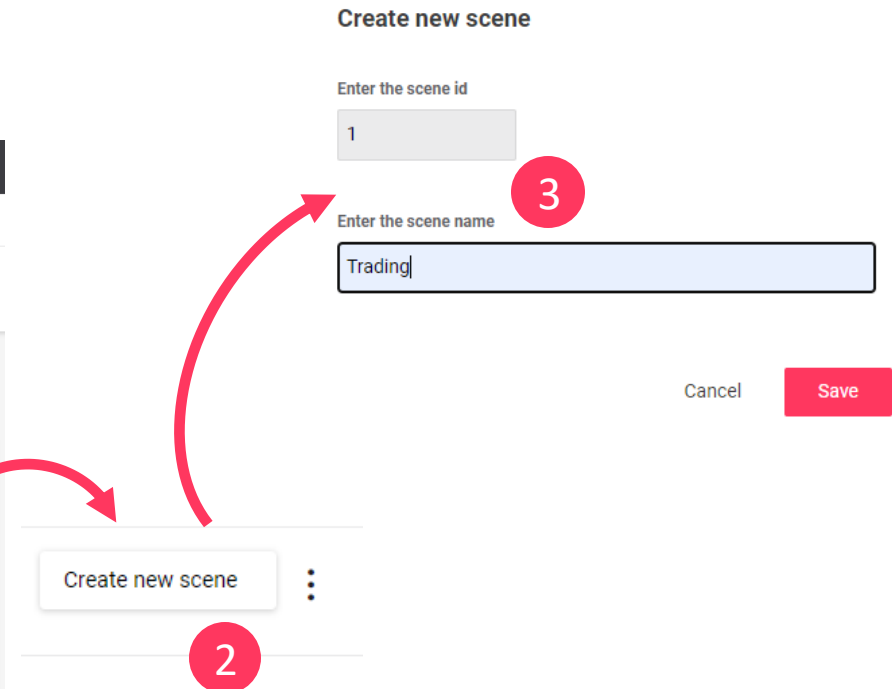
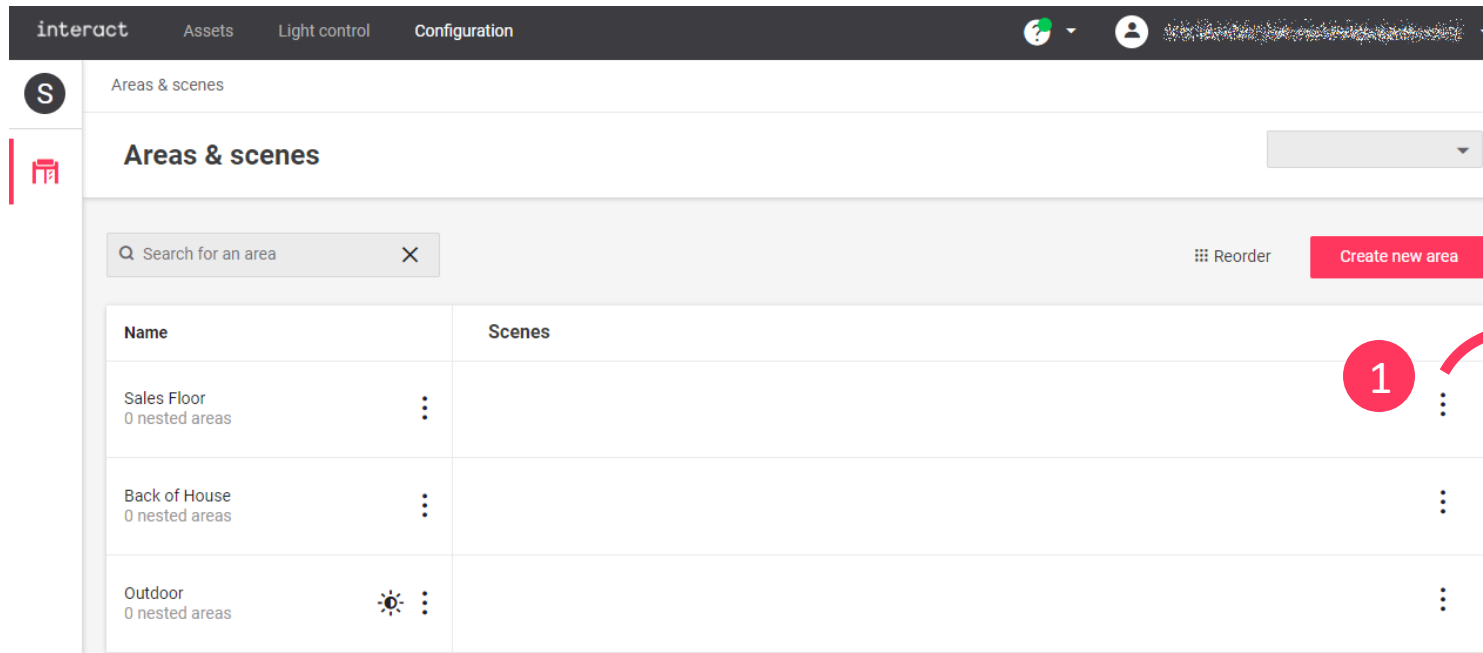
Cancel

Save

interact

Interact Cloud | Add scenes

1. Hover over the action menu icon (⋮)
 2. Click **Create new scene**
 3. Enter the **Scene name** and **ID** (align with Project Template form), and press **Save**
 4. Repeat for all **Scenes** within each **Parent Area**
- Scenes** ID alignment is suggested to be consecutive (Scene IDs 1, 2, 3....)



Interact Cloud | Add child areas

1. Click on the **Parent Area**, to show the list of child areas
2. Click **Create new child area**
3. Enter the **Child Area name** and **ID** (align with Project Template form), and press **Save**
4. Repeat for all **Child Areas**

It is suggested to assign **Child Area** ID, taking the ID of the **Parent Area** as a base.

For example: **Parent Area** ID = 2, **Child Area** ID's 21, 22, 23....



Name		Scenes	
Sales Floor 7 nested areas	1	Trading Stocking Cleaning Trading Eco All Off Hello	
Back of House 3 nested areas		Trading Stocking Cleaning Trading Eco All Off	
Outdoor 2 nested areas		All ON, Park D/N Sign On, Park+Fac D/N All D/N All Off	

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Assets

Light control

Configuration

Areas & scenes > Sales Floor

S

Child areas & logical channels

Search for a child area

Reorder

Create new child area

Name	Logical channels
No data available	

Create new child area

Enter the child area ID

21

Enter the child area name

Cash Registers

Cancel

Save

interact

Interact Cloud | Add logical channels

1. Hover over the action menu icon (⋮)
2. Click **Create new logical channel**
3. Select the type of the **Logical Channel**
4. Enter the **Logical Channel name** and **ID** (align with Project Template form), and press **Save**
5. Repeat for all **Logical Channels** within each **Child Area**

It is suggested to use consecutive ID`s, starting from ID 1



interact Assets Light control Configuration

S Areas & scenes > Sales Floor

Child areas & logical channels

Q Search for a child area X Reorder Create new child area

Name	Logical channels
Cash Registers 0 logical channels	⋮
Main Sales Floor 0 logical channels	⋮
Bakery 0 logical channels	⋮
Fresh Food 0 logical channels	⋮
Meat 0 logical channels	⋮

Create new logical channel

Enter the logical channel type

Dimming/Swi ⌵ 3

Enter the logical channel ID

1 4

Enter the logical channel name

Cash Register 1

Cancel Save

Interact Cloud | Edit usage of areas, scenes and channels

In the **Parent Area**, or the **Child Area** view:

1. Click **Edit usage**
2. Use the check box to enable / disable Areas (**Parent Areas** or **Child Areas**)
3. Select the **Scenes** or **Logical Channels** to enable / disable them. Dark theme means that scene or channel is enabled
4. Click **Save**



1 Edit usage

Name	Scenes
Sales Floor 6 child areas	Trading Stocking Cleaning Trading Eco All Off Hello
Back of House 8 child areas	Trading Stocking Cleaning Trading Eco All Off
Outdoor 5 child areas	All ON, Park D/N Sign On, Park+Fac D/N All D/N All Off

2


3

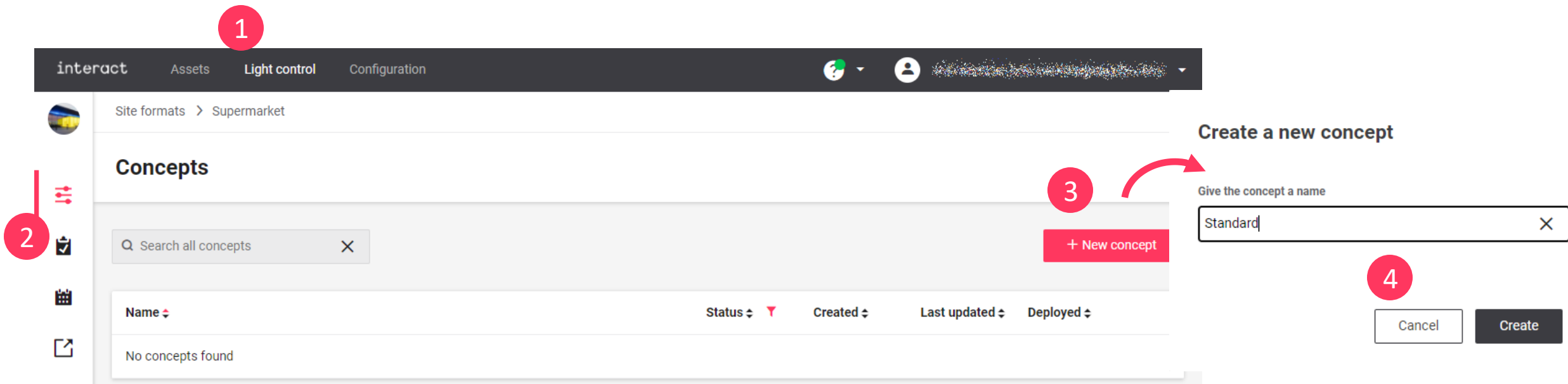
4 Cancel Save

Interact Cloud | Create concept

For a new format and cloud configuration, there is a need to create default **concept**.

Concept is a set of different lighting scenes and channel levels, designed for each **Parent Area**.

1. In the top menu, click **Light control**
2. On the left pane, select **Concepts** 
3. Click **+New concept**
4. Give the concept a name and click **Create**



interact Assets **Light control** Configuration

Site formats > Supermarket

Concepts

Search all concepts

+ New concept

Create a new concept

Give the concept a name

Standard

Cancel Create


Interact Cloud | Edit concept 1/3





It is only possible to edit **concept**, with the status **Draft**. It is not possible to edit **Deployed** concepts

To modify settings of the deployed concept, **create a Clone** of the **Deployed concept** first, and then start editing.

1. Click on the name of a created concept
2. Click on the row of the **Parent Area** to start editing **concept** for that area







Site formats > Supermarket

Concepts

Q Search all concepts X

Name ▾

Status ▾ ▼

Standard

1

Default

Draft

Name ▾

Status

Sales Floor
7 child areas

2

Trading

Stocking

Cleaning

Trading Eco

All Off

Hello

Back of House
2 child areas

Trading

Stocking

Cleaning

Outdoor
0 child areas

All ON, Park D/N

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13

Interact Cloud | Edit concept 2/3

Start editing the light settings for the area:

1. Select a **Scene** to edit channel level settings
2. Switch the zone **ON** or **OFF**, using a toggle switch
3. Move the **dim slider** to adjust light level, or enter the value in the box
4. Use the **Master slider** to change the relative dim level of all zones that are switched to ON
5. Click **Save changes**
6. Repeat for the other scenes in the area
7. Repeat for the other **Parent Areas** in the concept

The screenshot displays the Interact Cloud interface for editing light settings. The top navigation bar includes 'interact', 'Assets', 'Light control', and 'Configuration'. The breadcrumb trail shows the path: Site for [icon] > Supermarket > Concepts > Standard > Areas > Sales Floor. The scene selection bar at the top contains buttons for 'Trading' (selected), 'Stocking', 'Cleaning', 'Trading Eco', 'All Off', and 'Hello'. A 'Save changes' button is located on the right. The 'Master slider' is positioned below the scene bar. The 'Cash Registers' section contains two controls, each with a toggle switch and a dimmer slider set to 80%. The 'Main Sales Floor' section contains three controls, each with a toggle switch and a dimmer slider. The first 'Sales Floor 1' control has a value of 75%, while 'Sales Floor 2' and 'Sales Floor 3' are at 0%. Red numbered callouts indicate the following steps: 1. Select a scene (Trading); 2. Switch the zone ON/OFF (toggle switch for Sales Floor 1); 3. Move the dim slider or enter a value (75% for Sales Floor 1); 4. Use the Master slider; 5. Click Save changes.

Interact Cloud | Edit concept 3/3

When one of the **Parent Areas** has the **Day & Night Mode** enabled, a specific configuration for scenes applies.

1. Select a **Scene** to edit channel light settings
2. Click on the **Sun & Moon** ☀️🌙 icon, to activate the **day-night** setting. Two sliders show up, one for day, another for night.
3. Switch channels **ON** or **OFF**
4. Move the **dim sliders** to adjust light levels, for day and night.
5. Click **Save changes**
6. Repeat for the other scenes in the area, if the **Day & Night Mode** applies

Day and **Night** are determined by the Astro-clock functionality on the gateway
After sunrise, the Day setting is applied and after sunset, the Night setting.

Enter the area name

Outdoor|

☒ ☀️🌙 Day & Night Mode

Day and night mode allows you to set a different light level during the day (after sunrise) and at night (after sunset).

The day and night mode will be activated at the right time automatically by the system.

interact Cloud

1

All ON, Park D/N Sign On, Park+Fac D/N All D/N All Off

5 Save changes

Master slider 44 %

Copy dim levels

1

2

3

4

1 2 3 4

☀️ 0 % ☀️ 0 % ☀️ 0 % ☀️ 0 %

🌙 100 % 🌙 100 % 🌙 100 % 🌙 100 %

Interact Cloud | Add schedule 1/3

Each format requires a default **schedule**.

- 1. In the Light control tab, on the left pane, select **Schedule:** 📅
- 2. Click **+Add Multisite schedule**
- 3. Give the schedule a name and click **Save**



Site formats > Supermarket

Multisite schedule

📅 1

🔍 Search all schedules ✕

2 + Add Multisite schedule

Name ↕	Status ↕ 🔴	Created ↕	Last updated ↕	Start date ↕	End date ↕	Deployed ↕
No schedules found						





Add Multisite schedule

Name *
Default

3

Cancel Save

Interact Cloud | Add schedule 2/3

- 1. Click **+Add** to start creating the schedule
- 2. Select the **Type** of event (Simple event, Holiday, Special event)
- 3. Click the calendar  to select the **Start date**
- 4. Click the calendar  to specify the **End date**
- 5. Clear/select the days for the **Weekly Pattern**
- 6. Clear/select the months for the **Monthly Pattern**
- 7. Click **Next**
- 8. Select to which **Areas** the schedule applies, then click **Next**



Timed events: 0 out of 98
Holidays: 0 out of 30
Special events: 0 out of 30

Add Schedule

When
Types *
Simple event

Start date *
9/12/2021

End date

Weekly Pattern

- ☒ Sunday
- ☒ Monday
- ☒ Tuesday
- ☒ Wednesday
- ☒ Thursday
- ☒ Friday
- ☒ Saturday

Monthly Pattern

- ☒ January
- ☒ February
- ☒ March
- ☒ April
- ☒ May
- ☒ June
- ☒ July
- ☒ August
- ☒ September
- ☒ October
- ☒ November
- ☒ December

Add Schedule

Where

Areas

- ☒ Sales Floor
- ☒ Back of House
- ☒ Outdoor

Cancel Previous Next

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Interact Cloud | Add schedule 3/3

- 1. Enter the **Name** for the schedule (e.g., Standard Day)
- 2. Keep start time at **00:00** and click on the **Unknown** scene
- 3. Select the **Scene** and desired **Fade** time
- 4. Click the clock ⌚ to define the **Start time** and press **Add Action**
- 5. Select the **Scene** and **Fade** time
- 6. Repeat for other desired timeframes, then click **Next**
- 7. Verify created schedule, and click **Add**

Add Schedule

Holidays: 0 out of 30
Special events: 0 out of 30

What
Name *
Standard Day

Start time *
00:00

Sales Floor

Back of House

Outdoor

00:00

Selected action

Start time

00:00

Delete action

Area

Scene

Fade

Sales Floor

Back of House

Outdoor

What
Name *
Standard Day

Start time *
07:00

Sales Floor

Back of House

Outdoor

00:00

07:00

Selected action

Start time *
07:00

Delete action

Area

Scene

Fade

Sales Floor

Back of House

Outdoor

Summary

Standard Day - Simple event
8 October 2021

Standard Day
Sun, Mon, Tue, Wed, Thu, Fri, Sat

Sales Floor

Back of House

Outdoor

00:00

07:00

09:00

21:00

Trading

Cleaning

Sign On, Park+Fac D/N

Cancel

Previous

Add

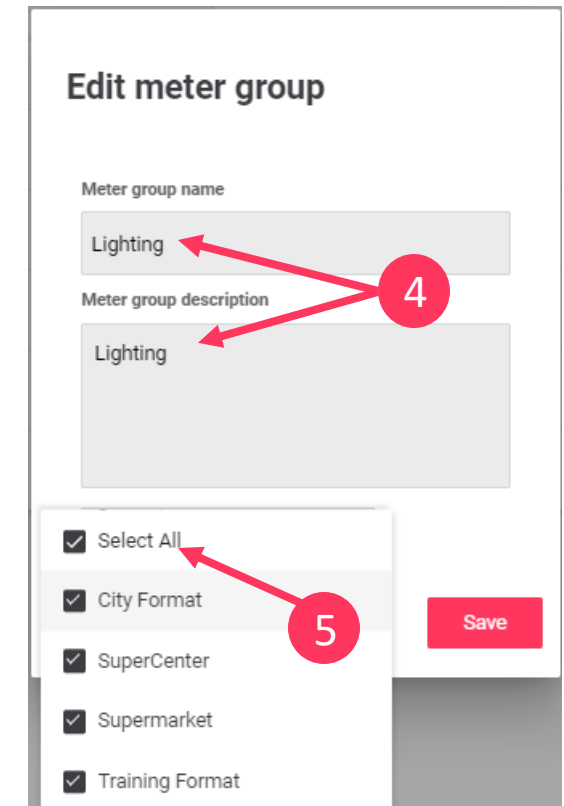
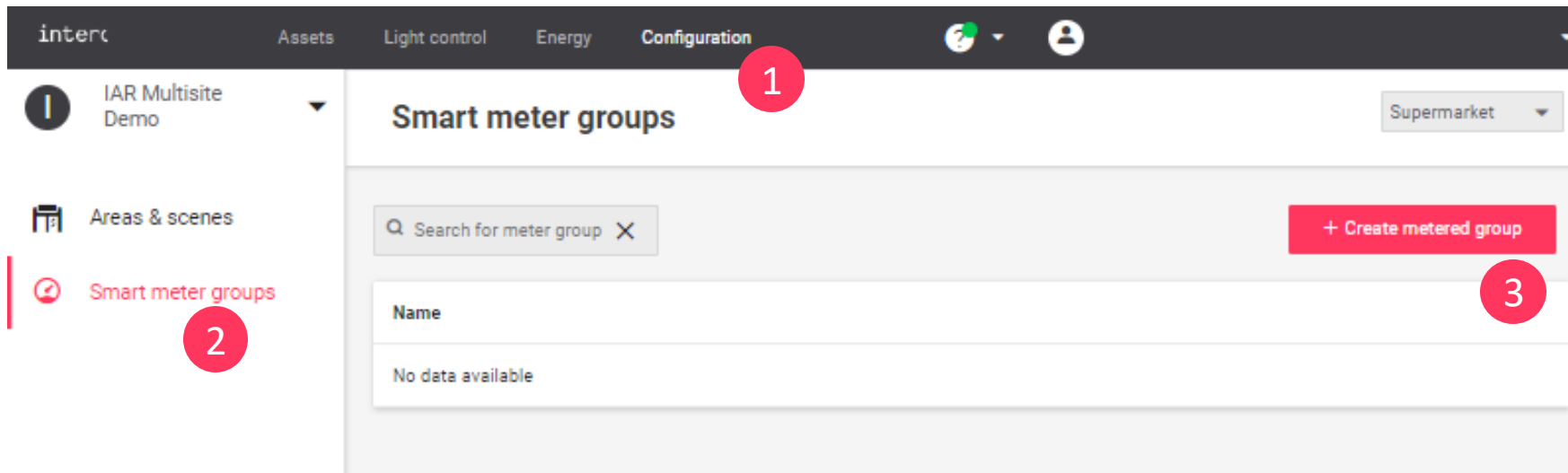


Interact Cloud | Add Smart meter groups

This step is only required when **smart meters** are used in the project to measure energy consumption.

To configure **Smart meter groups** in the Multiste dashboard:

1. Go to the **Configuration** tab.
2. On the left menu, select **Smart meter groups**.
3. Click **Create metered group** to create one.
4. Enter a **Group name** for the metered group and provide a **Group description**.
5. Click the dropdown and select **Select All**. Click **Save**.
6. Add all required Smart meter groups (power zones) by repeating the steps above.



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Prepare System Builder job file

Architecture FLX - Multisite

System Builder | Design Mode 1/2


System Designer is a tool which streamlines the process for generating control system design.

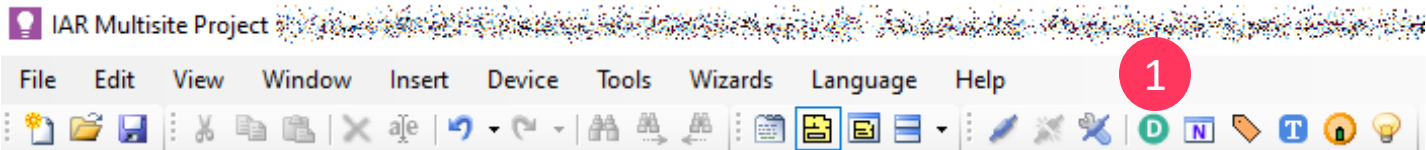
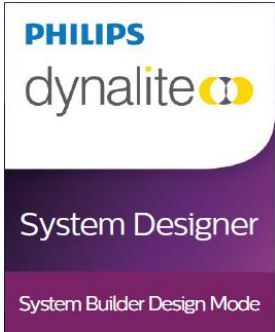
In order to use System Designer, a **technician license** for **System Builder** is required.

It's highly recommended to study the dedicated **User Guide** first:

in **System Builder** click **Help** → **User Guides** and select the **System Designer User Guide**.

To start with project design:

- 1. Click **Design icon**  to start the **System Designer Mode**
- 2. Follow all the steps of the **Design Assistant**



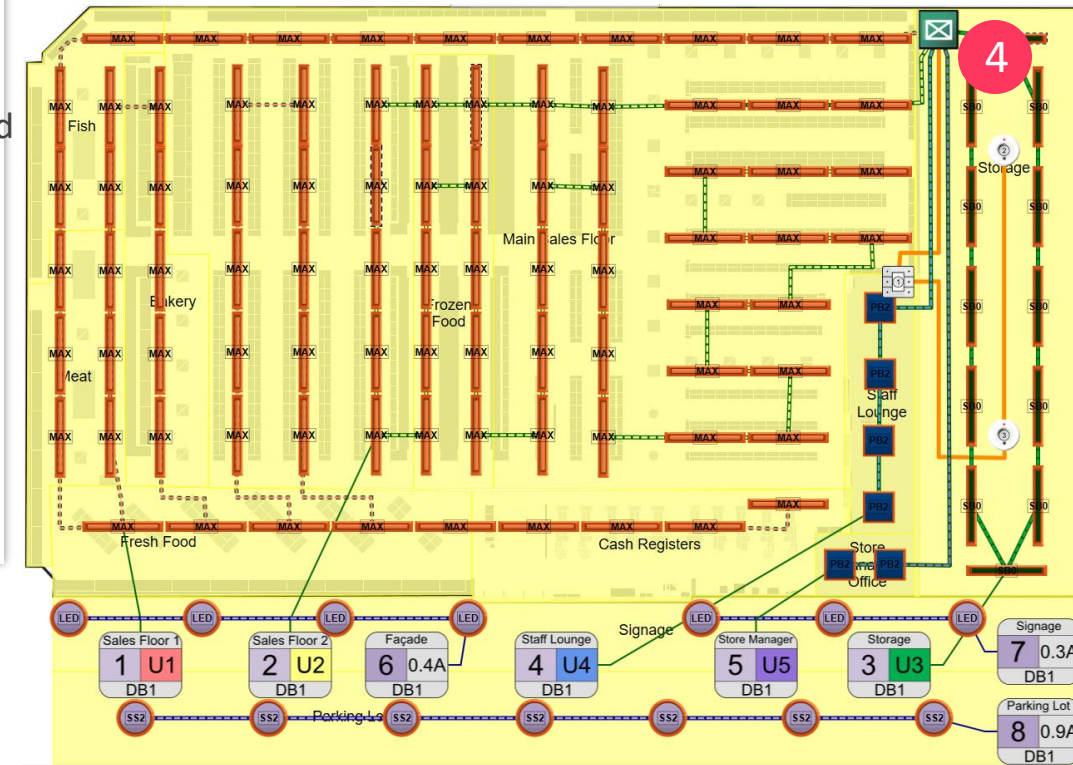
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System Builder | Design Mode 2/2

Take care for the following attention points:

3. In point 10. **Group Fixtures**:
 - Use **Draw Dali Cable** to connect the DALI controlled luminaires, both broadcast and addressable.
 - Use **Draw Fixture Group** for switchable luminaires
4. Make sure created **Universes** are linked with a **Distribution Board** by the cables
5. In point 12. **Draw Child Areas** give names and assign ID's.. This must be consistent with the **Interact Cloud** configuration, and the **Project Template** form

To close the **System Designer** tool, click again the **Design icon** 



10. Group Fixtures

Fixture grouping methods

1) Select one or more fixtures, then right-click a selected fixture and select Group Fixtures (shortcut key C) or select Group to DALI universe (shortcut key D). To select multiple fixtures, hold down the Ctrl key and click each fixture icon or click and drag to draw a box around multiple fixture icons.

2) Use the Draw Fixture Group or Draw DALI Cable tools under the Draw Line icon on the Floor Plan toolbar.

[Draw Fixture Group](#)

[Draw DALI Cable](#)

3

12. Draw Areas

To mark an area as complete, draw an area around it using the Draw Area Region tool (shortcut key A). Click and drag a rectangle or click at each point of the area.

[Draw Area](#)

Area Selection

Add Area Add Folder Rename

Tree List


Name	Number
Unassigned Area	1
IAR-multisite_Plan	
Cash Registers	21
Main Sales Floor	22
Bakery	23
Fresh Food	24
Meat	25
Frozen Food	26
Fish	27
Store Manager Office	31
Staff Lounge	32
Storage	33
Signage	41
Parking Lot	42

5


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System Builder | Finalize logical configuration and hierarchy

Create Parent Areas

- 1. In the **Areas** view, click  **Insert New Area**
- 2. Create the **Parent Areas**. Use the same name`s and ID`s as in the **Interact Cloud** and the **Project Template** form

Create and rename Logical Channels

- 3. In the **Areas** view, select the desired **Child Area**, and click  **Insert New Channel**. Create all logical channels, mirroring the **Interact Cloud** configuration thus the **Project Template** form.
- 4. Rename all channels in all **Child Areas**, and make sure to use identical **ID numbers**, as configured in the **Interact Cloud** and the **Project Template**.

Child area naming (e.g. Cash registers, Main ales floor, Bakery, ...)

Logical channel naming

Child area name

Cash Registers #21

Logical channel name

Cash Register 1

Cash Register 2

Child area name

Main Sales Floor #22

Logical channel name

Sales Floor1 #1

Sales Floor2 #2

Sales Floor3 #3

Child area name

Bakery #23

Logical channel name

Bakery1 #1

Bakery2 #2

Bakery3 #3

1

2

3

4

UntitledJob1

Unassigned AreaA1

IAR-multisite_Plan

Sales FloorA2

Back of HouseA3

OutdoorA4

Cash RegistersA21

Main Sales FloorA22

BakeryA23

Fresh FoodA24

MeatA25

Frozen FoodA26

FishA27

Store Manager OfficeA31

Staff LoungeA32

StorageA33

SignageA41

Parking LotA42

→

UntitledJob1

Unassigned AreaA1

IAR-multisite_Plan

Sales FloorA2

Back of HouseA3

OutdoorA4

Cash RegistersA21

Cash Register 1C1

Cash Register 2C2

Main Sales FloorA22

Sales Floor 1C1

Sales Floor 2C2

Sales Floor 3C3

BakeryA23

Bakery1C1

Bakery2C2

Bakery3C3

Fresh FoodA24

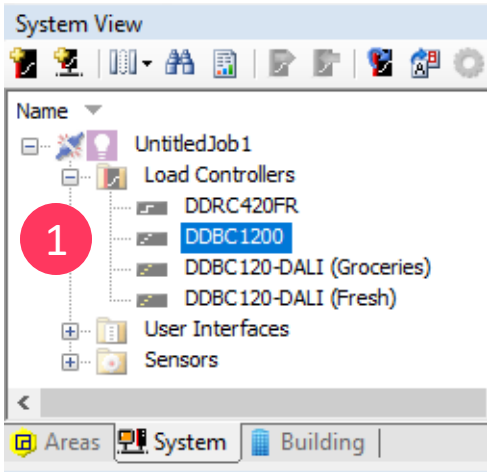
Child areas & logical channels

Q Search for a child area X		Edit usage Create new child area	
Name		Logical channels	
Cash Registers	2 logical channels	Cash Register 1	Cash Register 2
Main Sales Floor	3 logical channels	Sales Floor 1	Sales Floor2 Sales Floor3
Bakery	3 logical channels	Bakery1	Bakery2 Bakery3

System Builder | Set Base Link Area and channel load

In the **offsite preparation**, it's only possible to set channel **Base Link Areas** and **Loads** for **broadcast and relay controllers**. Configuration of enumerated channels is a part of an *Onsite commissioning*, which will be covered in the next training module.

- 1. In the **System** view, open the tree of the Load Controllers and select a controller.
- 2. On the **Outputs** tab in the column **Base Link Area**, enter the number of the **Parent Area**, the Physical channel links to. (It is also possible to draw BLA on the **Floor Plan View**)
- 3. In the column **Load (Watts)**, fill in calculated channel load
- 4. Set physical channel **Power Category** to **Lighting**



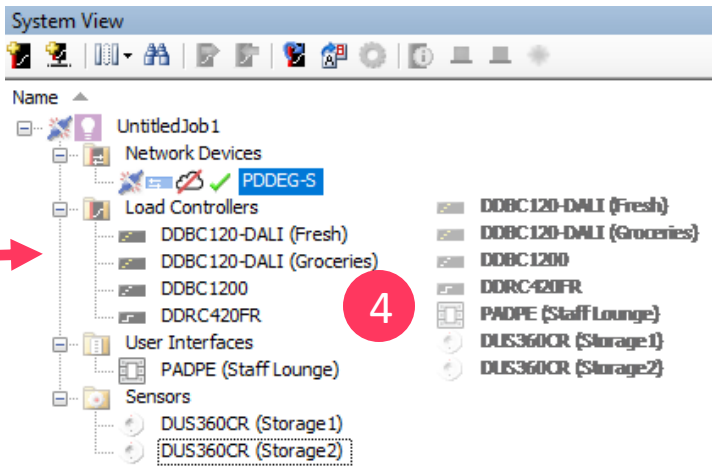
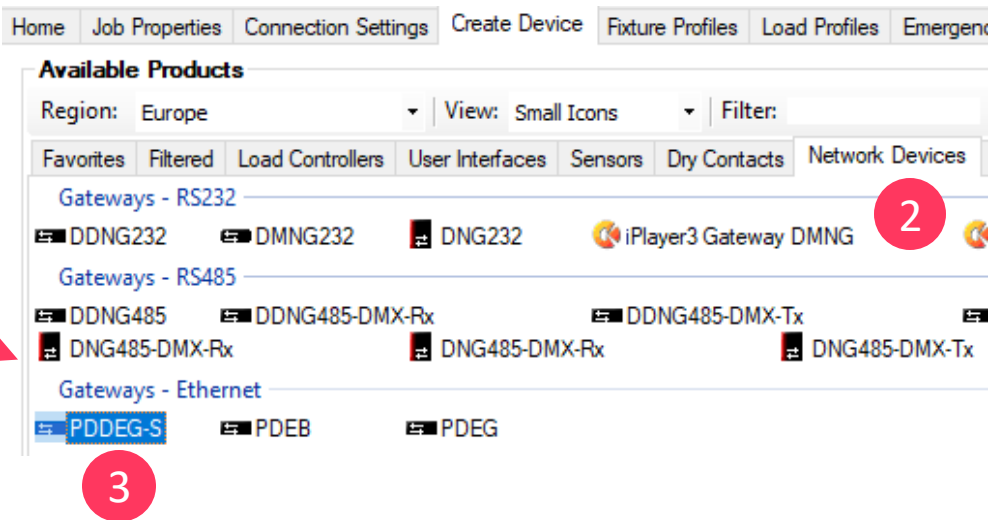
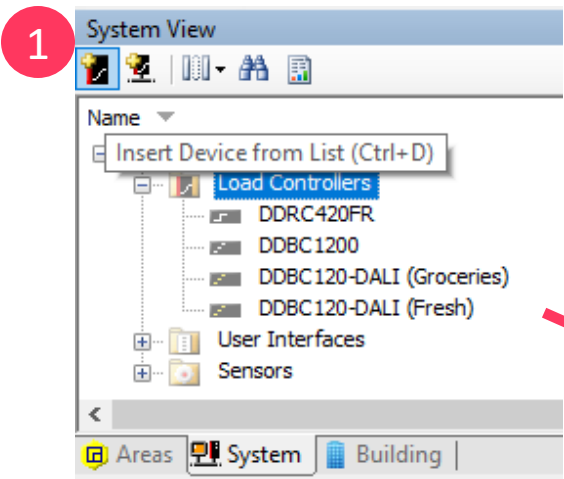
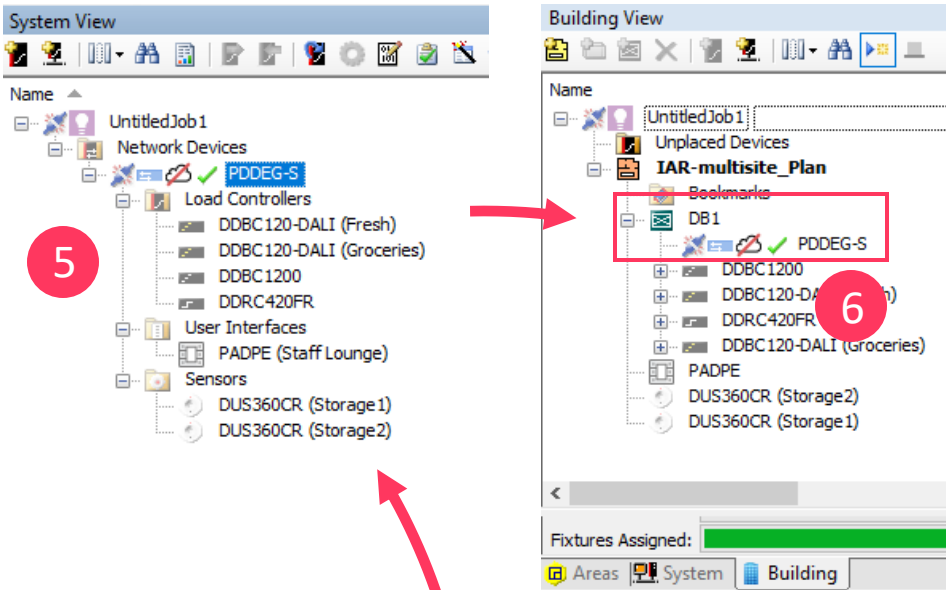
Device Properties Outputs Presets Tasks Switches Sliders Prails										
Show Columns										
Number	Name	Area	Channel	Load (Watts)	Power Category	Flash	Switching	Duplicate	Dimming Curve	Base Link Area
1	#3 - Storage	33	1	120	Lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Default	3
2	#4 - Staff Lounge	32	1	240	Lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Default	3
3	#5 - Store Manager	31	1	180	Lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Default	3
4	Spare	1	4	0	Lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Default	Disabled
5	Spare	1	5	0	Lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Default	Disabled
6	Spare	1	6	0	Lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Default	Disabled
7	Spare	1	7	0	Lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Default	Disabled
8	Spare	1	8	0	Lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Default	Disabled
9	Spare	1	9	0	Lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Default	Disabled
10	Spare	1	10	0	Lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Default	Disabled
11	Spare	1	11	0	Lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Default	Disabled
12	Spare	1	12	0	Lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Default	Disabled

System Builder | PDDEG-S Gateway 1/5

Add the site gateway

- 1. In the **System** view, click **Insert Device from List**
- 2. Select the **Network Devices** tab
- 3. Under **Gateways – Ethernet**, double-click the **PDDEG-S**, to add it to the project topology
- 4. Press **Shift** to multiselect all Load controllers, User interfaces and Sensors
- 5. Move the devices under the **PDDEG-S**.
- 6. In the **Building View**, Drag & Drop **PDDEG-S** under **Distribution Board (DB1)**

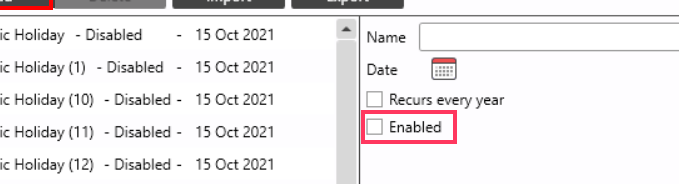
Project topology is now created.



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Configure 100 Simple Event schedules, 30 public holidays and 30 special events

1. In the **System** view, select the **PDDEG-S**
2. On the **Schedules** tab, check if there are **100 *Undefined Schedules*** available. Make sure that all schedules are **disabled**, and the schedule type is **Simple Event**
3. Click **Set Public Holidays**
4. Add **30 New Public Holidays**. Make sure all are **disabled**. Click **Ok**
5. Click **Set Special Events**
6. Add **30 New Special Events**. Make sure all are **disabled**. Click **Ok**




Edit Public Holidays

Add Delete Import Export

New Public Holiday	- Disabled	- 15 Oct 2021
New Public Holiday (1)	- Disabled	- 15 Oct 2021
New Public Holiday (10)	- Disabled	- 15 Oct 2021
New Public Holiday (11)	- Disabled	- 15 Oct 2021
New Public Holiday (12)	- Disabled	- 15 Oct 2021
New Public Holiday (13)	- Disabled	- 15 Oct 2021
New Public Holiday (14)	- Disabled	- 15 Oct 2021
New Public Holiday (15)	- Disabled	- 15 Oct 2021
New Public Holiday (16)	- Disabled	- 15 Oct 2021
New Public Holiday (17)	- Disabled	- 15 Oct 2021
New Public Holiday (18)	- Disabled	- 15 Oct 2021
New Public Holiday (19)	- Disabled	- 15 Oct 2021
New Public Holiday (2)	- Disabled	- 15 Oct 2021

Name

Date 

☐ Recurs every year

☐ Enabled

4

Ok



Edit Special Events

Add

Delete

Import

Export

New Special Event - Disabled - 15 Oct 2021	Name	
New Special Event (1) - Disabled - 15 Oct 2021	Start Date	
New Special Event (10) - Disabled - 15 Oct 2021	End Date	
New Special Event (11) - Disabled - 15 Oct 2021	<input type="checkbox"/> Recurs every year	
New Special Event (12) - Disabled - 15 Oct 2021	<input type="checkbox"/> Enabled	
New Special Event (13) - Disabled - 15 Oct 2021		
New Special Event (14) - Disabled - 15 Oct 2021		
New Special Event (15) - Disabled - 15 Oct 2021		
New Special Event (16) - Disabled - 15 Oct 2021		
New Special Event (17) - Disabled - 15 Oct 2021		
New Special Event (18) - Disabled - 15 Oct 2021		
New Special Event (19) - Disabled - 15 Oct 2021		
New Special Event (2) - Disabled - 15 Oct 2021		

6

Ok

interact

The screenshot displays the 'System Manager' application interface, specifically the 'Schedules' section. The interface is organized into three main panes:

- Left Pane (System View):** Shows a hierarchical tree of network devices. A red circle '1' highlights the 'PDDEG-S' device under the 'Network Devices' category.
- Center Pane (Schedules):** Displays a list of 19 'Undefined Schedule' entries. A red circle '2' highlights the first entry. Above the list, there are tabs for 'Set Location And Time Zone', 'Set Public Holidays', and 'Set Special Events'. A red circle '3' highlights the 'Synchronise to System Manager' button.
- Right Pane (Schedule Properties):** Provides configuration options for the selected schedule. A red circle '4' highlights the 'Enabled' checkbox. A red circle '5' highlights the 'Date and time' section, which includes 'Begin' and 'End' date pickers. Other sections include 'Days of the week', 'Dates of the month', 'Weeks of the month', 'Months of the year', 'Public holidays', 'Special events to include/exclude', and 'Schedule Type' (set to 'Simple Event').

At the bottom of the center pane, there are buttons for 'New Schedule', 'Duplicate', 'Run', and 'Delete'. The top of the interface features a navigation bar with tabs for 'Device Properties', 'Connection Settings', 'Create Device', 'Schedules', 'Bridge Address Ranges', 'Ports', 'Routing', 'Hw Bridges', 'Rhythm Send', 'Metrics', 'Users', 'Switches', and 'Area Cascade'.

System Builder | PDDEG-S Gateway 3/5

- 1. On the **Schedules** tab, click **Set Location And Time Zone**
- 2. Specify **Country** and **City** reflecting the correct time zone for the site. Click **OK**
- 3. On the **Ports** tab, in the IPv6 configuration, **disable default multicast** and **unicast** services
- 4. Clear **Route RS485 and Default Multicast Service** checkbox, on the **Routing** tab
- 5. Make sure to keep default **Web Socket Port** and **Routing** settings
- 6. On the **Users** tab, leave the default user properties for the admin user

Device Properties

Connection

1 Create Device

Schedules

Bridge Address Ranges

Ports

Schedules

Set Location And Time Zone

Set Public Holidays

Set Special Events

Synchronise to System Manager

Undefined Schedule

Undefined Schedule

Undefined Schedule

Undefined Schedule

Undefined Schedule

Undefined Schedule

Undefined Schedule

Undefined Schedule

Undefined Schedule

Undefined Schedule

Undefined Schedule

Undefined Schedule

Undefined Schedule

Undefined Schedule

Undefined Schedule

Undefined Schedule

Undefined Schedule

Undefined Schedule

Undefined Schedule

Undefined Schedule

Undefined Schedule

New Schedule

Duplicate

Run

Delete

System Builder - Set Device Location And Time Zone

Location

CountryGERMANY

CityHamburg

DMS Latitude53°33' NORTH

DMS Longitude9°58' EAST

Time Zone

Time Zone(UTC+01:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna

Has Daylight Saving

Time Zone Offset (min)-60

Daylight Saving StartLastSundayMarch02:00:00

Daylight Saving StopLastSundayOctober03:00:00

Daylight Saving Adjustment (min)-60

Set as Default

OK

Cancel

IPv6	
IPv6 user defined ports	Enabled
IP Address	::
Gateway	::
Subnet prefix length	64
DNS server	::
Alternative DNS server	::
Send on default multicast service	Disabled
UDP default multicast port	Disabled
UDP default unicast port	Disabled

4

Routing		
New Routing	Delete Routing	Copy Paste
Route RS485 and Default Multicast Service		
Enable	From	To
<input checked="" type="checkbox"/>	Web Socket Port 1, Trunk	Comm Port 1, Spur
<input checked="" type="checkbox"/>	Comm Port 1, Spur	Web Socket Port 1, Trunk
<input checked="" type="checkbox"/>	Internal Messages	Web Socket Port 1, Trunk
<input checked="" type="checkbox"/>	Metrics Collection	Web Socket Port 1, Trunk

Schedules

Bridge Address Ranges

Port Editor

Routing

Hue Bridges

Rhythm Send

Metrics

Users

Switches

Are

6

AddDelete

Name

admin

User Properties

Nameadmin

Password.....

EnableTrue

interact

System Builder | PDDEG-S Gateway 4/5

- 1. On the **Device Properties** tab, check the setting: *Authentication required for: CGI Only*
- 2. Enable **Batch Reporting** feature.
- 3. Configure **30 special event** and **public holiday records**. Raise name length to **32 bytes**.

Device Properties | Connection Settings | Create Device | Schedules | Bridge Address Ranges

Advanced | Filter:

Ethernet Applications

Web server	Enabled
Secure connection (HTTP / HTTPS)	HTTPS
Authentication required for	CGI Only
Starting web page	index.html
Web server caching	Enabled
CGI Timeout (milliseconds)	5000
Batch Reporting	Enabled
Batch Reporting interval (minutes)	Default

Scheduler

Event schedule	Enabled
Reserved event schedule records	100
Reserved task length (bytes)	80
Grace Period (minutes)	0
Reserved event schedule name (bytes)	32
Reserved special event records	30
Reserved special event name (bytes)	32
Reserved public holiday records	30
Reserved public holiday name (bytes)	32

System Builder | PDDEG-S Gateway 5/5

For integration of **Manual Override** and **Alarm**, use dedicated Dynalite program (Task)

1. On the **Tasks** tab, click **Select Task Template**
2. Select **Multisite Manual 2-Hour Override and Alarm Integration.evt** task. Click **OK**
3. Define **Base Link Areas** to which **Manual Override** feature applies.

Configuration of **BMS** and **Alarm**, must be finalized on the **Dry Contact** device.

More information can be found in the official **Multisite Commissioning Guide**

The screenshot displays the System Builder interface with the 'Tasks' tab selected. The 'Select Task Template' dialog is open, showing a list of tasks. The task 'Interact Retail Multisite Manual 2-Hour Override and Alarm Integration.evt' is selected. The 'Define BLA's' section is expanded, showing the configuration for three Base Link Areas (BLA's). The 'Task Version' section is also visible.

1 Select Task Template

2 Interact Retail Multisite Manual 2-Hour Override and Alarm Integration.evt

3 Define BLA's

Number	Name
✓ 1	Root Area #1 Task
✓ 2	Root Area #2 Task
✓ 3	Root Area #3 Task
✓ 4	Store -> Automatic Mode -> Alarm
✓ 5	Store -> Manual Mode -> Alarm
✓ 6	Timer_Root Area #1
✓ 7	Timer_Root Area #2
✓ 8	Timer_Root Area #3
✓ 9	Concept deployment when Alarm
✓ 10	Timer

Define BLA's

Number of BLA's: 3

Base Link Area #1

Enabled: True

Base Link Area #1: Sales Floor [2]

Base Link Area #2

Enabled: True

Base Link Area #2: Back of House [3]

Base Link Area #3

Enabled: True

Base Link Area #3: Outdoor [4]

Task Version

Task Version: Description below

Task Version

v.01.03

interact

System Builder | Additional configurations – Alarm Integration

Integrate Alarm, via the Dry Contact Inputs (DDMIDC8)

The **Dry Contact** interface, can provide integration with **Alarm systems**.
Specific configuration must be followed, in order to enable this functionality.
To integrate with an external **Alarm system**:

- 1. Multisite **Manual 2-Hour Override and Alarm Integration Task** must be applied on **PDDEG-S**
- 2. Dry Contact Input used for the Alarm integration should be configured with a **Custom function**, and **Join Byte 0x85**
- 3. Configure following **input actions**:
 - **Start task 5** on the PDDEG-S device, when the **Alarm** is being **armed**
 - **Start Task 4** on the PDDEG-S device, when the **Alarm** is being **disarmed**

General

Name

IAR Multisite - Manual Override Task with Alarm/BMS integration

Description

Manual Override task with Alarm/BMS integration for IAR Multisite proposition - version 1.03

IMPORTANT NOTES!

- works with PDDEG-S V2
- Sunset/Sunrise schedules must occupy number 1&2 in the scheduler
- Supports up to 3 BLA's. More BLA's -> Contact Technical Support via ticketing system
- Local manual override reverts back to automatic after 2h, or on the scheduled next message
- Alarm/BMS Task4 and Task5 must be triggered and configured on the Dry-Contact integration device

Number	Name
✓1	Root Area #1 Task
✓2	Root Area #2 Task
✓3	Root Area #3 Task
✓4	Store -> Automatic Mode -> Alarm Dis...
✓5	Store -> Manual Mode -> Alarm Armed
✓6	Timer_Root Area #1
✓7	Timer_Root Area #2
✓8	Timer_Root Area #3
✓9	Concept deployment when Alarm Armed
✓10	Timer

General

Name

Alarm Armed / Disarmed

Switch

Enabled

Logical Address

Logical Area

Sales Area [2]

Channel

All Channels [0]

Join

85

BLA

Disabled

Advanced

Enable when panel disabled

False

Trigger at startup

False

Proxy channel index

4

Function

Function

Custom

Standard function name

No match

Press actions

Preset - Preset: 4, Fade: 00:00:02.000; Task control - Execution type: Start task, Device code: 0xC3, Box number: 1, Task number: 5

Release actions

Preset - Preset: 3, Fade: 00:00:02.000; Task control - Execution type: Start task, Device code: 0xC3, Box number: 1, Task number: 4

Extended press actions

Preset - Preset: 4, Fade: 00:00:02.000; Task control - Execution type: Start task, Device code: 0xC3, Box number: 1, Task number: 5

Extended release actions

Preset - Preset: 3, Fade: 00:00:02.000; Task control - Execution type: Start task, Device code: 0xC3, Box number: 1, Task number: 4

Task control

Execution type: Start task, Device code: 0xC3, Box number: 1, Task number: 5

Task control

Execution type: Start task, Device code: 0xC3, Box number: 1, Task number: 4

Alarm armed

3

Alarm disarmed

Advanced

Task control

Control type

Start task

Device code

Ethernet Gateway Supervisor V2 (0xC3)

Box number

1

Task number

5

Advanced

Task control

Control type

Start task

Device code

Ethernet Gateway Supervisor V2 (0xC3)

Box number

1

Task number

4

interact

System Builder | Additional configurations – Manual 2-Hour Override

Configure Manual Override on the Dry Contact Inputs (DDMIDC8)

There are some specific configurations on the **User interface**, which need to be applied in order to enable key integrations and features.

One of these is **Manual 2-Hour Override**, which provides functionality to overrule the scheduled scene with a different preset, for a maximum of two hours.

To enable the **Manual 2-Hour Override** feature:

- 1. Multisite **Manual 2-Hour Override and Alarm Integration** Task must be applied and configured on **PDDEG-S**
- 2. **Dry Contact Input** used for the **Manual Override**, must be configured with a **Preset** function and a **Join Byte 0x83**

Each **preset** message, with the **join byte of 0x83**, will trigger 2-hour timer.

After 2 hours, system reverts to the previously scheduled scene.

2

General

Name

IAR Multisite - Manual Override Task with Alarm/BMS integration

Description

Manual Override task with Alarm/BMS Integration for IAR Multisite proposition - version 1.03

IMPORTANT NOTES!

1

- works with PDDEG-S V2

- Sunset/Sunrise schedules must occupy number 1&2 in the scheduler

- Supports up to 3 BLA's. More BLA's -> Contact Technical Support via ticketing system

- Local manual override reverts back to automatic after 2h, or on the scheduled next message

- Alarm/BMS Task4 and Task5 must be triggered and configured on the Dry-Contact integration device

Number	Name
✓ 1	Root Area #1 Task
✓ 2	Root Area #2 Task
✓ 3	Root Area #3 Task
✓ 4	Store -> Automtaic Mode -> Alarm Dis...
✓ 5	Store -> Manual Mode -> Alarm Armed
✓ 6	Timer_Root Area #1
✓ 7	Timer_Root Area #2
✓ 8	Timer_Root Area #3
✓ 9	Concept deployment when Alarm Armed
✓ 10	Timer

General

Name

Manual Override - Trading 100%

Switch

Enabled

Logical Address

Logical Area

Back of House [3]

Channel

All Channels [0]

Join

83

BLA

Disabled

Advanced

Enable when panel disabled

False

Trigger at startup

False

Proxy channel index

0

Function

Function

Preset

Sub function

Preset

Preset

Trading [1]

Fade (rounded to 10 ms)

00:00:02.000

DyNet mute

False

2

System Builder | Preset placeholders

In order for the customer to recall and create their own **Scenes**, create empty **Presets** as **placeholders** for new cloud scenes.

- 1. In the **Areas** view, select **Parent/Child** area. Select the tab **Preset Editor**
- 2. On the tab Preset Editor, select **New** and **Set Total Presets**
- 3. Enter the total number of **64** presets and click **OK**
- 4. Right-click on the Preset and select **Rename**, to rename the Preset

Remember to do this per **Parent Area** and all **Child Areas** assigned to them in System Builder.

The screenshot illustrates the steps to create preset placeholders in the Philips Dynalite System Builder. It shows the 'Areas View' on the left with a tree structure of areas. The 'Preset Editor' tab is active, showing a table of presets. A red circle '1' highlights the 'Presets' tab. A red circle '2' highlights the 'New' button. A red circle '3' highlights the 'Set Total Presets' dialog box, which prompts for the total number of presets (64). A red circle '4' highlights the 'Rename' option in the context menu for a preset.

Num	Preset Name	Type
1	High	User
2	Medium	User
3	Low	User
4	Off	User
5	Preset 5	User
6	Preset 6	User
7	Preset 7	User
8	Preset 8	User

Philips Dynalite System Builder - Set Total Presets

Enter total number of presets: 64

OK Cancel

Num	Preset Name	Type
1	High	User
2	Medium	User
3	Low	User
4	Off	User
5	Preset 5	User
6	Preset 6	User
7	Preset 7	User
8	Preset 8	User
9	Preset 9	User
10	Preset 10	User
11	Preset 11	User

Request Levels
Duplicate
Copy
Paste
Delete
Rename


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System Builder | Preset names

Align **Preset** names with **Scene** names and **ID** created in the **Interact Cloud**.

Naming must be consistent with the **Project Template form**.

Repeat for **all Presets** in all **Parent** and **Child** areas.



Name	Scenes
Sales Floor 7 child areas	Trading Stocking Cleaning Trading Eco All Off Hello
Back of House 8 child areas	Trading Stocking Cleaning Trading Eco All Off
Outdoor 5 child areas	All ON, Park D/N Sign On, Park+Fac D/N All D/N All Off

Area 1

Sales Floor #2

Define Child areas and Logical channels on page 7

Area 2

Back of House #3

Define Child areas and Logical channels on page 11

Area 1 scenes

Trading #1

Stocking #2

Cleaning #3

Trading Eco #4

Area 2 scenes

Trading #1

Stocking #2

Cleaning #3

Trading Eco #4

Project template

All Off #5

Hello #6

Areas View

UntitledJob 1

Unassigned Area A1

IAR-multisite_Plan

Sales Floor A2

Back of House A3

Outdoor A4

Cash Registers A21

Main Sales Floor A22

Bakery A23

Area Properties

Presets

Outputs

Area Devices

Unassign

New

Synchronise

Num	Preset Name	Type
Active Levels		
1	Trading	User
2	Stocking	User
3	Cleaning	User
4	Trading Eco	User
5	All Off	User
6	Preset 6	User
7	Preset 7	User

System Builder | Additional configurations – User Interfaces

Antumbra and Revolution panels – specific configuration

1.

Configure buttons with a preset action
2.

Buttons can be configured to control **Parent Areas** (BLA`s) or **Child Areas**
3.

Configure **Join byte** to **0x83** to enable the **2-hour manual override**, in case corresponding task has been configured on the PDDEG-S gateway
4.

Using **PDTS UI Creator**, configure buttons with an **Activate preset** function
5.

PDTS buttons can be configured to control **Parent Areas** (BLA`s) or **Child Areas**. For each button define desired Preset
6.

Configure **Join byte** to **0x83** to enable the **2-hour manual override**, in case corresponding task has been configured on the PDDEG-S gateway

When upgrading Store Flex (Storewise) system, follow the Technical Notes available on the **Signify Partner Portal** with regards to PDTS or DTP100 configuration.

Logical Address

Logical Area	Staff Lounge [32]
Channel	All Channels [0]
Join	83
BLA	Disabled

General

Button	Enabled
Enable when panel disabled	False
Name	
Proxy channel index	14

Function

Function	Preset
Sub function	Preset
Preset	High [1]
Fade (rounded to 10 ms)	00:00:02.000
DyNet mute	False

Properties

General

Behaviour

Functions (1)

Function (1)

Button function

Activate preset

Preset properties

Area

Area 32

Preset

High

Request on load


False

Fade in time (sec)

2

Join

83



Philips Dynalite UI Creator

App

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System Builder | Additional configurations – Sensors 1/2

Motion control – specific configuration

- 1. Specify if the sensor should control a Parent Area (BLA) or a Child Area
- 2. For motion control, configure Join byte to 0x81
- 3. When configuring the sensor to the Child Area, set the link with the correct BLA
- 4. Modify and configure specific sensor settings, if required.
- 5. Create the desired number of presets and assign actions
- 6. Always use at least 1 minute Resend Inhibit Period to avoid over-flooding the DyNet network

Device Properties | Motion Control | Light Control - Closed Loop

Advanced | Graph

Logical Address

Logical Area	Store Manager Office [31]	1
Channel	All Channels [0]	2
Join	81	
BLA	3	3

Motion Control

Motion control	Enabled	
Presets wraparound	Disabled	
Single sensor Area c...	True	
Enable flags	FFFF	4
Motion detector	Enabled	
LED output on motion	Enabled	

Timing

Action delay period	00:00:10
Resend inhibit period	00:01:00
Timeout	00:10:00

New Delete | Edit On Motion Actions Edit On No-motion Actions Synchronise

PresetΔ	Name	Enabled	On Motion	Delay Period	On No-Motion
1	High	<input checked="" type="checkbox"/>	Preset - Preset: 1, Fade: 00:00:02.000	Resend Inhibit Period	Preset - Preset: 3, Fade: 00:00:02.000
2	Medium	<input type="checkbox"/>	No action	None	No action
3	Low	<input checked="" type="checkbox"/>	Preset - Preset: 1, Fade: 00:00:02.000	Resend Inhibit Period	Preset - Preset: 4, Fade: 00:00:02.000
4	Off	<input checked="" type="checkbox"/>	Preset - Preset: 1, Fade: 00:00:02.000	None	No action




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System Builder | Additional configurations – Sensors 2/2

Daylight sensing – specific configuration




- 1. Select Daylight Harvesting mode: **Closed** or **Open Loop**
- 2. Specify, if the sensor should control a **Parent Area** (BLA) or a **Child Area**
- 3. Configure **Join byte** to **0x82**
- 4. When configuring the sensor to the **Child Area**, **set the link** with the correct BLA
- 5. Modify and configure specific sensor settings if required
- 6. Create the desired number of presets (closed loop) or define bands (open loop) with agreed settings

Closed Loop

 New
  Delete
  Synchronize

Preset	Name	Enable	Target Level (Lux)
1	High [1]	<input checked="" type="checkbox"/>	400
2	Medium [2]	<input checked="" type="checkbox"/>	400
3	Low [3]	<input checked="" type="checkbox"/>	400
4	Off [4]	<input checked="" type="checkbox"/>	400

Open Loop

 New
  Delete
  Edit Actions

Band	Low Level (Lux)
0	0
1	1000
2	2000

1

Device PropertiesMotion ControlLight Control - Closed LoopLight Control - Open Loop

AdvancedGraph

Logical Address

Logical Area	Storage [33]	2
Channel	All Channels [0]	
Join	82	3
BLA	3	4

Sensor Properties

Light Control	Enabled	
Day Rhythm	Disabled	
Presets wraparound	Disabled	
Proceed if level unknown	True	
Load shedding	Enabled	
Update period	00:04.000	
Daylight switch off delay (min)	15	5
Dead zone (LUX)	100	
Decrement steps (DyNet levels)	16	
Increment steps (DyNet levels)	16	
Light measurement	Enabled	
Use default lux coeffs	False	
Scaler	Default	
Gain	Default	
Integration time (ms)	Default	

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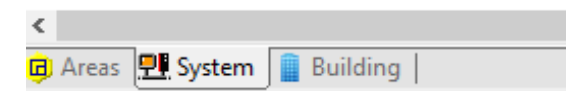
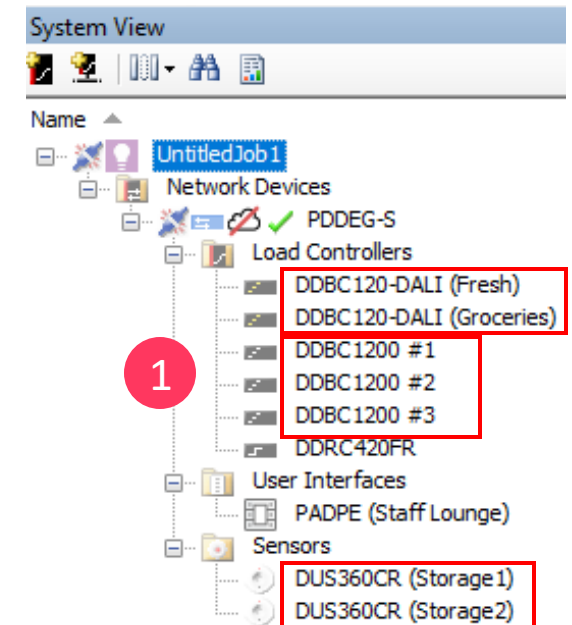
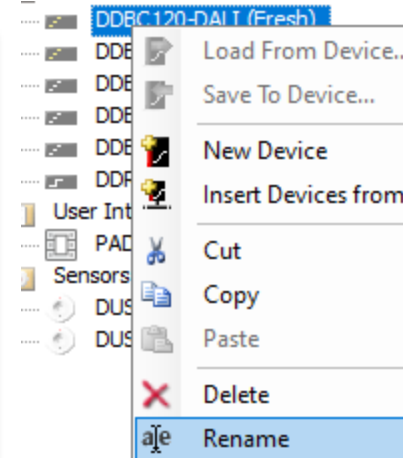
System Builder | Additional configurations – unique naming**Rename Devices**

When the same type of device exists multiple times in the system, make sure to **change the name** and **make it unique**.

1. In the **System** view, right-click on the **Device** and select **Rename**.

Assign unique names, for example:

- 3xDDBC1200 → DDBC1200 #1, DDBC1200 #2, DDBC1200 #3
- 2xDUS360CR → DUS360CR (Storage1), DUS360CR (Storage2)
- 2xDDBC120 → DDBC120-DALI (Fresh), DDBC120-DALI (Groceries)



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System Builder | Mandatory configuration – Job Time Zone

Last step is to double check that Job file Location and Time Zone match the same settings than the PDDEG-S. For that:

1. Go to Tools from the top bar menu.
2. Select Set Location and Time Zone.
3. Edit the settings if needed to match the project gateway.
4. Click OK to ensure the change applies.

Philips Dynalite System Builder - Set Job Location And Time Zone

Location

Country: GERMANY

City: Hamburg

DMS Latitude: 53°33' NORTH DMS Longitude: 9°58' EAST

Time Zone

Time Zone: (UTC+01:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna

☒ Has Daylight Saving Time Zone Offset (min): -60

Daylight Saving Start: Last Sunday March 02:00:00

Daylight Saving Stop: Last Sunday October 03:00:00

Daylight Saving Adjustment (min): -60

Set as Default OK Cancel

System Builder | Save job data to the cloud**Login to the cloud**

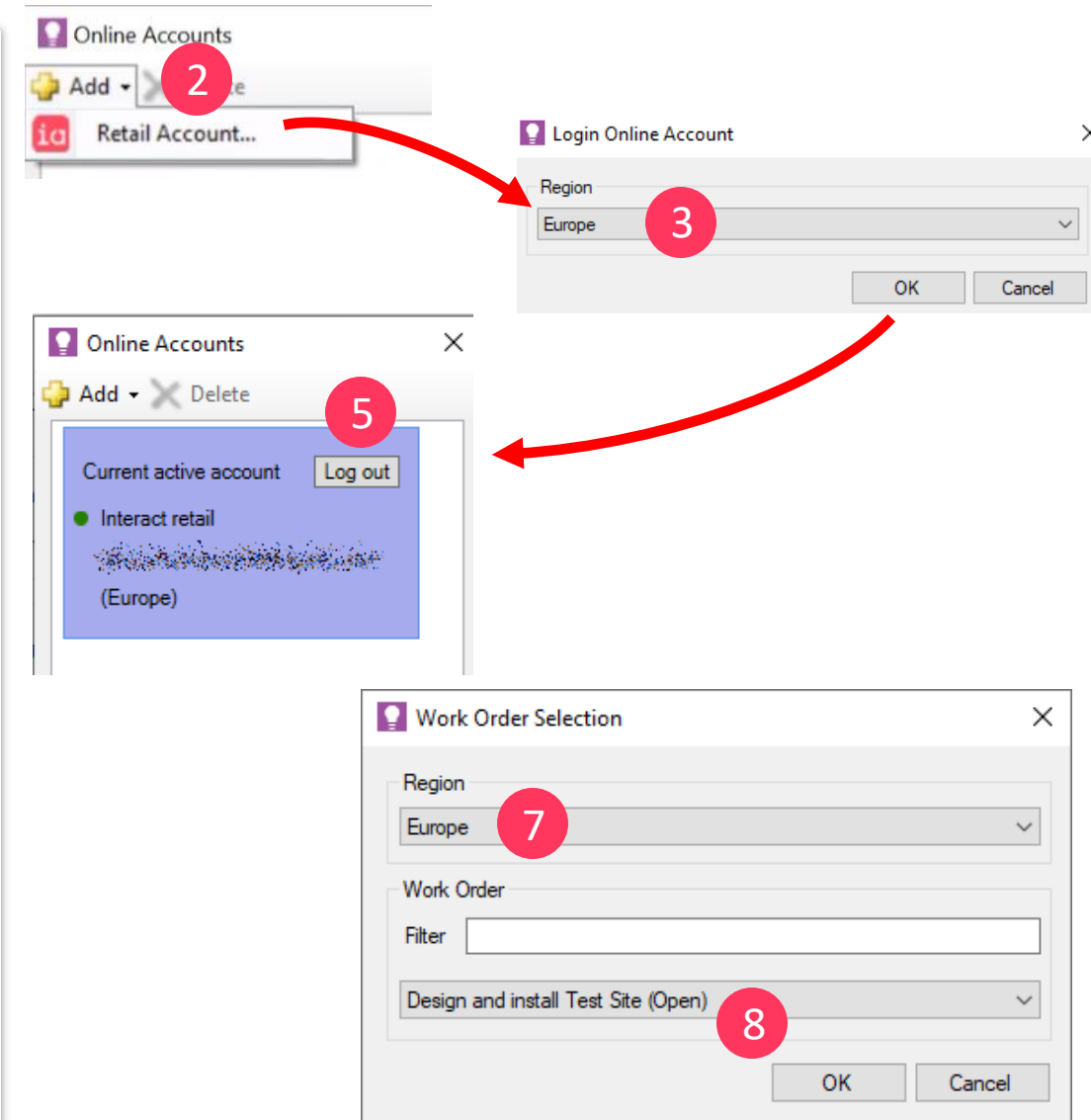
The **user account** must be registered in **Microsoft Azure Active Directory** before you can login to the Retail Account.

1. On the **Tools** menu, click **Online Accounts**
2. Click **Add**, and select **Retail Account**
3. Select **Europe** as a region, and click **OK**
4. Select your account to login to. If required, fill in your password
5. Account has been linked with Interact cloud

Save job file to the cloud

6. On the **File** menu, click **Save As** and select **Save Job To Cloud**
7. In the **Work Order Selection** menu, select the Region: Europe
8. Find and choose applicable work order, then click **OK**

Wait until the file is successfully saved to the cloud. Confirm this in the **Application logs**



interact

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Configure metered energy

Architecture FLX - Multisite

Multisite metered energy | Introduction

Configuration of energy metering is only required when smart meters are used to measure energy consumption. Otherwise, this step can be skipped.

Before you start creating the configurations for metered energy, make sure to:

- Obtain and read the most recent documentation of the selected meter
- Make sure that you understand the specifications of the selected meter and how to implement it.
- Always follow the installation manual of the meter; contact the support line of the manufacturer of the meter in case of any questions



Multisite metered energy | Preparation

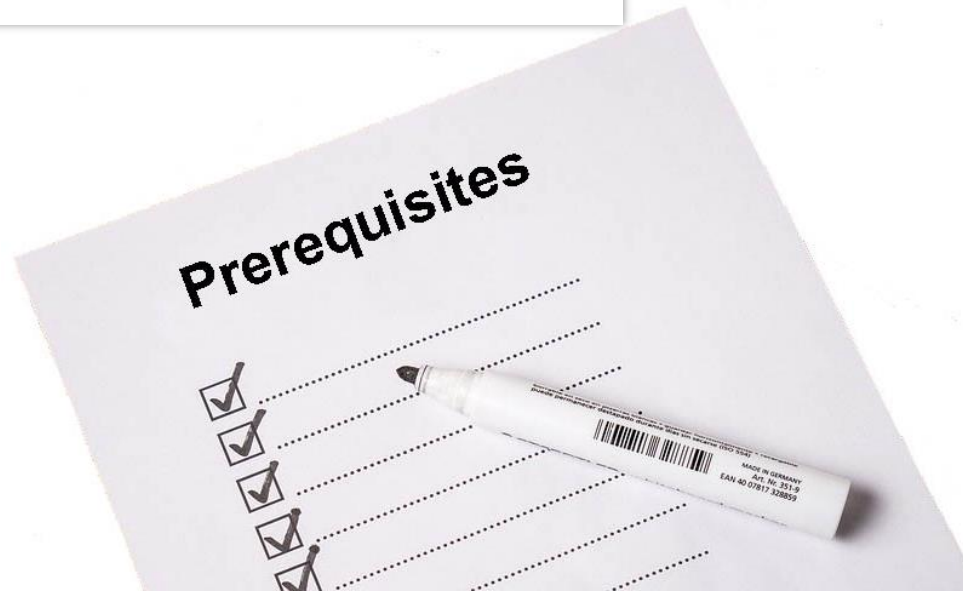
In order to configure Metered Energy, following components are required:

System Builder

- Latest version, available on Dynalite.com
- **Technician** license → Support.controls@signify.com

Firmware

- PDDEG-S version: 1.23 or higher
- PDEG/PDEB version: 3.58 or higher



Multisite metered energy | Preparation

Offsite preparation

•
•
•

2

Prepare System Builder job file

- Start with System Designer mode
 - Finalize logical hierarchy
 - Set Base Link Areas and channel loads
 - Configure PDDEG-S Gateway
 - Create preset placeholders
 - Configure Manual Override, BMS and Alarm integrations
 - Configure controllers, sensors, UI's
 - Configure Job file time zone
 - **Save job file to the Cloud and close it.**
- A**

Step A – generic Multisite Offsite System Builder job file preparation

Step B – additional Metered Energy configurations

B1: Modbus RS 485

B2: Modbus IP

Important: to configure **Metered Energy**, Step A **must be accomplished** prior to Step B

Metered Energy configurations

Modbus RS485 (RTU)

- **Open job file from the Cloud**
 - Additional PDDEG-S configurations
 - Add and configure Modbus Meters
 - Add and configure PDEG/PDEB/DDNG485
 - Save job file to the Cloud
- B1**

or

Modbus IP (TCP)

- **Open job file from the Cloud**
 - Add and configure Modbus Meters
 - Configure PDDEG-S
 - Save job file to the Cloud
- B2**

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**Configure Modbus RS485 metering
with PDEB/PDEG**

Architecture FLX - Multisite

Metered energy - Modbus RS485 | Additional PDDEG-S configurations

Ensure System Builder job file is closed before running these steps:

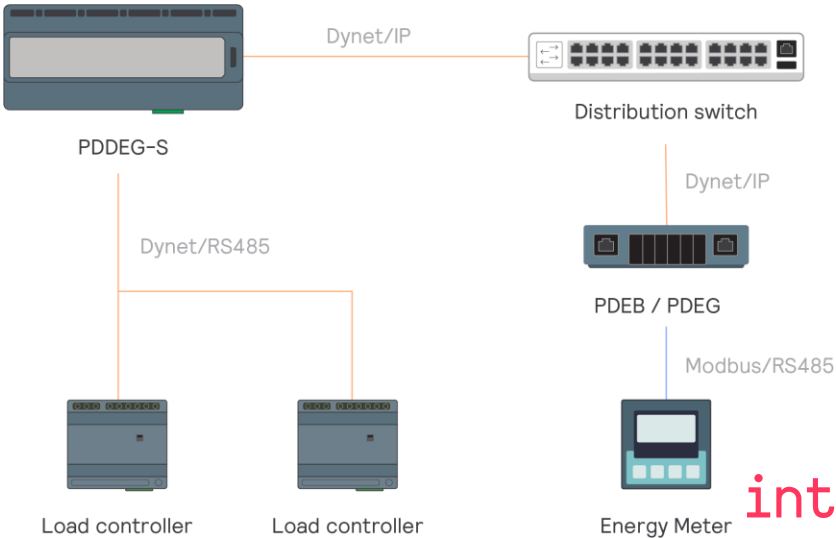
- 1. Open Job file from the Cloud.
- 2. In the System View, click on PDDEG-S.
- 3. On the Ports tab, change the setting Use static IP address to True. Specify static IP address, Subnet mask and network Gateway IP address.
- 4. On the Ports tab, create an additional IPv4 Server Port, configured as shown on the picture.
- 5. Ensure all routs are configured in the Routing tab.

IPv4	
IPv4 ports	Enabled
Use static IP address	True
IP Address	192.168.1.20
Gateway	192.168.1.1
Subnet mask	255.255.255.0
DNS server	8.8.8.8

Port	Type, Index	Connection	Description
Comm Port 1	1, 1	Spur	Baudrate: 9600
IPv4 Port 1	2, 1	Spur	TCP Server, Port: 50000
Web Socket 1 / ...	5, 1	Trunk	

Port	
Port type	DyNet2
Mode	Server
Port Number	50000
Protocol	TCP
Flags	
Secure port	False
Connection	Spur
Area zero transmit	Disabled
Sign on at start up	Enabled

New Routing X Delete Routing Copy Paste Route RS-485 and Default Multicast Service				
Enable	From	To	Filters	
	<input checked="" type="checkbox"/>	IPv4 Port 1, Spur, TCP Server, Port: 50000	Web Socket Port 1 / Cloud Connection , Trunk	No filter
	<input checked="" type="checkbox"/>	Web Socket Port 1 / Cloud Connection , Trunk	IPv4 Port 1, Spur, TCP Server, Port: 50000	No filter
	<input checked="" type="checkbox"/>	Internal Messages	Web Socket Port 1 / Cloud Connection , Trunk	No filter
	<input checked="" type="checkbox"/>	Internal Messages	IPv4 Port 1, Spur, TCP Server, Port: 50000	No filter
	<input checked="" type="checkbox"/>	IPv4 Port 1, Spur, TCP Server, Port: 50000	IPv4 Port 1, Spur, TCP Server, Port: 50000	No filter
	<input checked="" type="checkbox"/>	Metrics Collection	Web Socket Port 1 / Cloud Connection , Trunk	No filter
	<input checked="" type="checkbox"/>	Internal Messages	Comm Port 1, Spur	No filter
	<input checked="" type="checkbox"/>	Comm Port 1, Spur	Web Socket Port 1 / Cloud Connection , Trunk	No filter
	<input checked="" type="checkbox"/>	Web Socket Port 1 / Cloud Connection , Trunk	Comm Port 1, Spur	No filter
	<input checked="" type="checkbox"/>	Metrics Collection	IPv4 Port 1, Spur, TCP Server, Port: 50000	No filter
	<input checked="" type="checkbox"/>	Metrics Collection	Comm Port 1, Spur	No filter



Metered energy - Modbus RS485 | Add and configure Modbus meters

To add Modbus meters:

1. In the **System** view, add **PDEG/PDEB** device under **PDDEG-S**, and click on it.
2. Go to the **Create Device** tab.
3. Select **Meters** tab.
4. Choose **Modbus Meter** from the existing list or click **Manage Custom Meters**

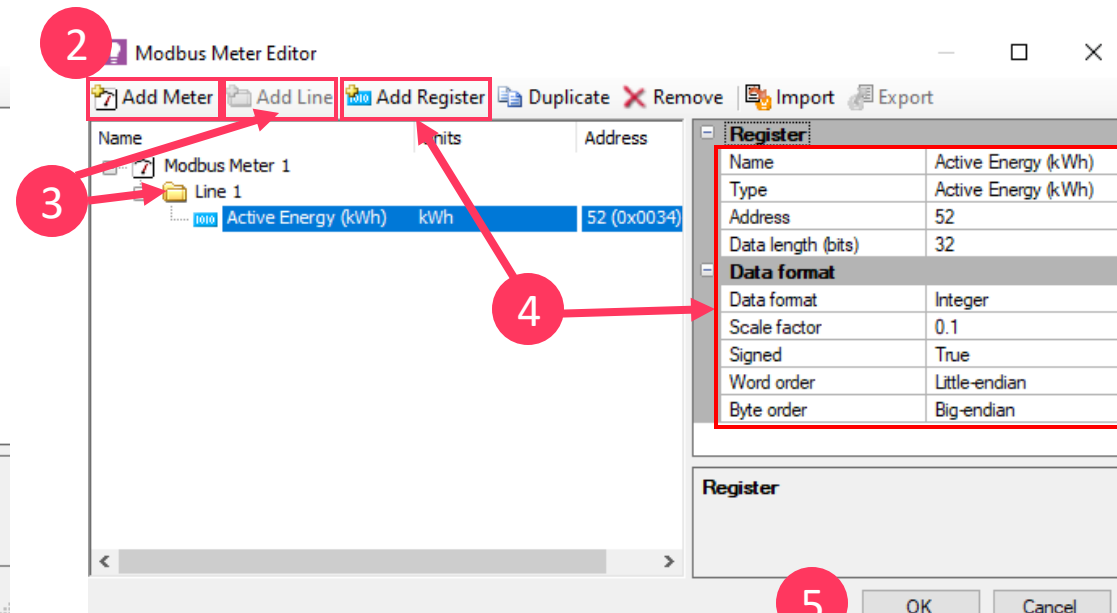
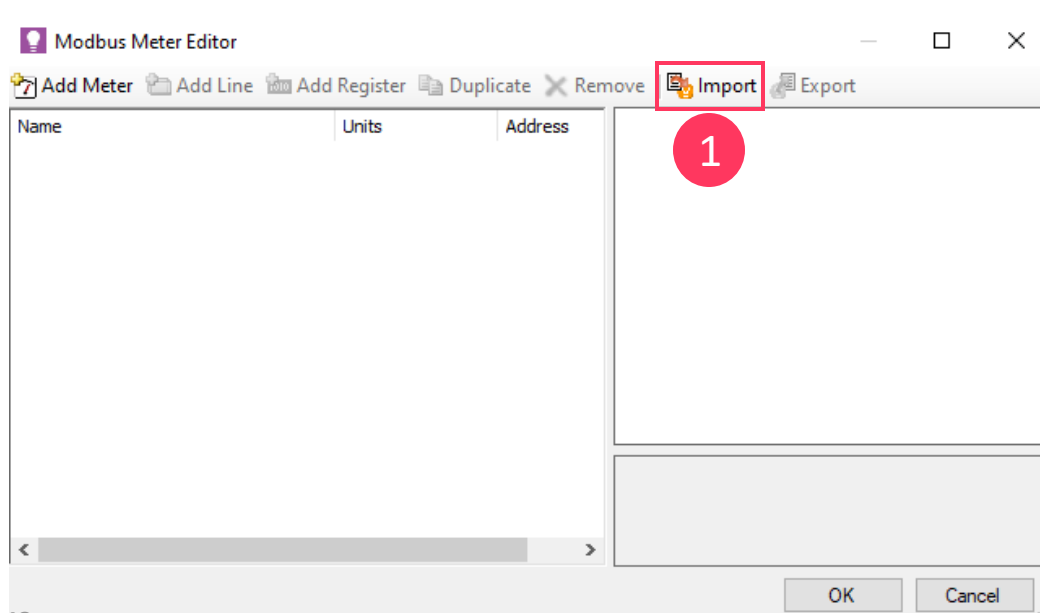
The screenshot displays the Multisite software interface with four numbered callouts indicating the steps to add a Modbus meter:

- 1**: In the **System View** tree on the left, the **PDEG** device is selected under the **PDDEG-S** folder.
- 2**: The **Create Device** tab is selected in the top navigation bar of the **Device Properties** panel.
- 3**: The **Meters** tab is selected in the **Available Products** section of the **Create Device** panel.
- 4**: The **Modbus Meter** is selected from the list of available products. Below this, the **Device Properties** section shows the **Meter Address** field, which is currently set to **Unassigned**. The **Manage Custom Meters** button is also visible at the bottom.

Metered energy - Modbus RS485 | Add and configure Modbus meters

When selected **Manage Custom Meters** :

1. Click **Import**, to load Modbus meter from the external *.mmx file, for example → Carel MT300W3200.mmx or,
2. Click **Add Meter**.
3. Create a **Line**.
4. **Add Register** and configure as an **Active Energy** register, according to Modbus Meter technical documentation.
5. Click **OK**.

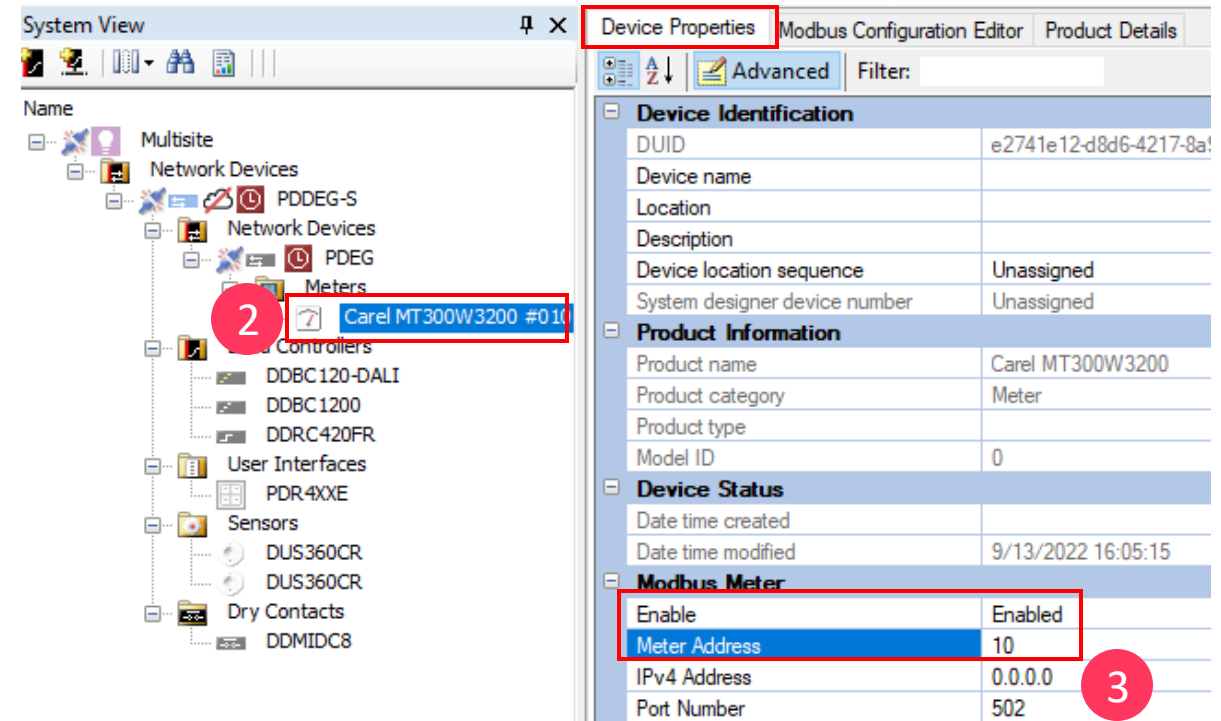
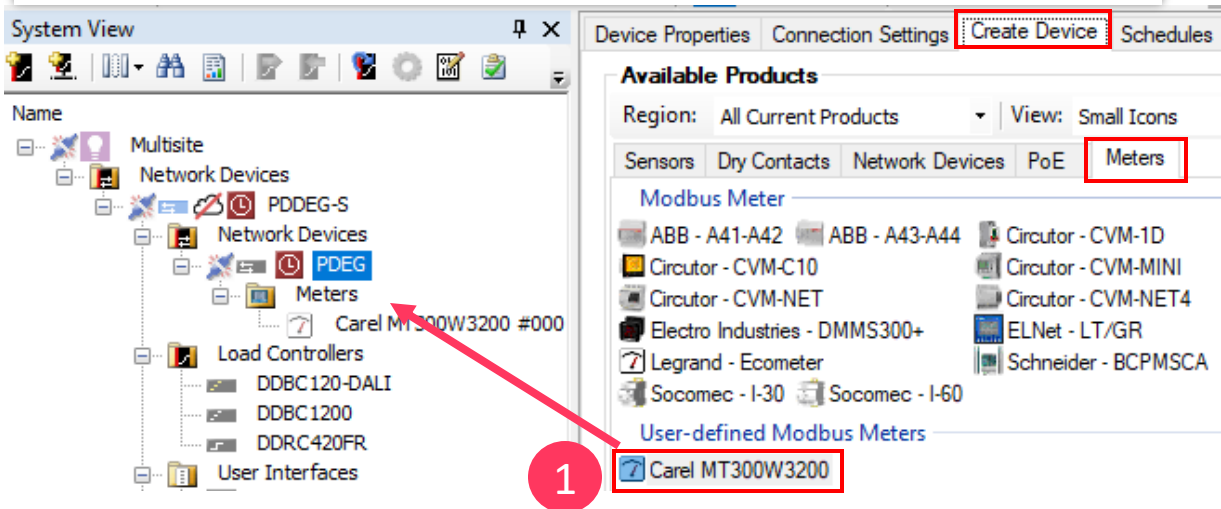


Metered energy - Modbus RS485 | Add and configure Modbus meters

Custom meter will appear on **Meters** list (PDEG --> *Create Device* tab)

1. Drag & Drop Custom Meter under **PDEG/PDEB**.

From now onwards, all the steps are relevant for Modbus meters added from SB list or created as Custom Meters

2. Click on the Modbus Meter.**3. On the Device Properties tab, specify Meter Address and ensure meter is Enabled.**

Metered energy - Modbus RS485 | Add and configure Modbus meters

Having selected Modbus meter in the System view:

- 1. Go to **Modbus Configuration Editor** tab.
- 2. **Enable** an **Active Energy** register.
- 3. In a **Power Zone** column, assign desired **Power Zone** to the **Active Energy** register.

Device Properties **Modbus Configuration Editor** Product Details

Modbus Device Channel Assignment

1

Name	Enabled	Value	Units	Address	Power
1010 Phase L1-N (V)	<input type="checkbox"/>		V	0 (0x0000)	
1010 Phase L2-N (V)	<input type="checkbox"/>		V	2 (0x0002)	
1010 Phase L3-N (V)	<input type="checkbox"/>		V	4 (0x0004)	
1010 average phase-neutral S...	<input type="checkbox"/>		V	36 (0x0024)	
Assigned Circuits					
Voltage:					
1010 Phase L1-L2 (V)	<input type="checkbox"/>		V	6 (0x0006)	
1010 Phase L2-L3 (V)	<input type="checkbox"/>		V	8 (0x0008)	
1010 Phase L3-L1 (V)	<input type="checkbox"/>		V	10 (0x000A)	
1010 average phase-phase S...	<input type="checkbox"/>		V	38 (0x0026)	
Assigned Circuits					
Power factor:					
1010 phase L1	<input type="checkbox"/>		PF	46 (0x002E)	
1010 phase L2	<input type="checkbox"/>		PF	47 (0x002F)	
1010 phase L3	<input type="checkbox"/>		PF	48 (0x0030)	
1010 SE	<input type="checkbox"/>		PF	49 (0x0031)	
Assigned Circuits					
SE:					
1010 phase sequence	<input type="checkbox"/>		Other	50 (0x0032)	
1010 frequency (Hz)	<input type="checkbox"/>		Hz	51 (0x0033)	
1010 Active energy SE (kWh)	<input checked="" type="checkbox"/> 2		kWh	52 (0x0034)	

Device Properties **Modbus Configuration Editor** Product Details

Modbus Device Channel Assignment

Name	Ena...	Value	Units	Address	Power Zone
THD:					
Current:					
Voltage:					
Voltage:					
Power factor:					
SE:					
1010 phase sequence	<input type="checkbox"/>	Other		50 (0x0032)	
1010 frequency (Hz)	<input type="checkbox"/>	Hz		51 (0x0033)	
1010 Active energy SE (kWh)	<input checked="" type="checkbox"/>	kWh		52 (0x0034)	3
Assigned Circuits					
Apparent power:					
Reactive inductive energy					
Reactive capacitive energy?					

HVAC
Lighting
Clear

interact

Metered energy - Modbus RS485 | Add and configure PDEG/PDEB

In order to configure **PDEG/PDEB** as a Modbus gateway:

1. Configure **PDEG/PDEB** IP address, Gateway and Subnet. PDEG must belongs to the same network as PDDEG-S.
2. On the **Ports** tab, create an additional **IPv4 Client Port**, indicating PDDEG-S IP address as a **Hostname**. Apply all shown settings.
3. On the **Ports** tab, configure **Comm Port 1** as a **Modbus Gateway** type. Apply all indicated settings.
4. Cross check routing setting on the **Routing** tab.
5. On the **Metrics** tab, ensure **Total Energy Consumption** metric **Polling Interval** is set to **15** minutes.

Port	Type, Index	Connection	Description
Comm Port 1	1, 1	Spur	Baudrate: 38400
IPv4 Port 1	2, 1	Spur	TCP Client, IP: 192.168.1.20, Port: 50000

Port

Port type	DyNet2
Mode	Client
IP Address / Hostname	192.168.1.20
Port Number	50000
Protocol	TCP

Flags

Secure port	False
Connection	Spur
Area zero transmit	Disabled
Sign on at start up	Enabled
Close socket after sending	False

Port	Type, Index
Comm Port 1	1, 1
IPv4 Port 1	2, 1

Port

Port type	Modbus gateway
Baudrate	38400
Delay (milliseconds)	5
Retry delay (milliseconds)	300
Port mode	Half duplex
Data bits	Data bits 8
Parity	Parity none
Stop bits	Stop bits 1
DMX max Channel	65535
Trust DyNet	True
Pass Non DyNet	True
Pass DyNet	True
Handshake	RS485
Zero DMX levels enabled	True
Modem	False
Echo	False
Query Delay	65535

Metric

Metric type	Total Energy Consumption (Modbus)
Metric	Enabled
Method	Polling
Port type	Comm Port
Protocol	Modbus gateway
Polling interval	00:15:00
Number of registers	2
Data format	Integer
Scale factor	0.1
Signed	True
Word order	Little-endian
Byte order	Big-endian

Enable	From	To	Filters
	<input checked="" type="checkbox"/> Comm Port 1, Spur	IPv4 Port 1, Spur, TCP Client, IP: 192.168.1.20, Port: 50000	<input checked="" type="checkbox"/> No filter
	<input checked="" type="checkbox"/> IPv4 Port 1, Spur, TCP Client, IP: 192.168.1.20, Port: 5...	Comm Port 1, Spur	<input checked="" type="checkbox"/> No filter
	<input checked="" type="checkbox"/> Internal Messages	IPv4 Port 1, Spur, TCP Client, IP: 192.168.1.20, Port: 50000	<input checked="" type="checkbox"/> No filter
	<input checked="" type="checkbox"/> Metrics Collection	IPv4 Port 1, Spur, TCP Client, IP: 192.168.1.20, Port: 50000	<input checked="" type="checkbox"/> No filter

interact

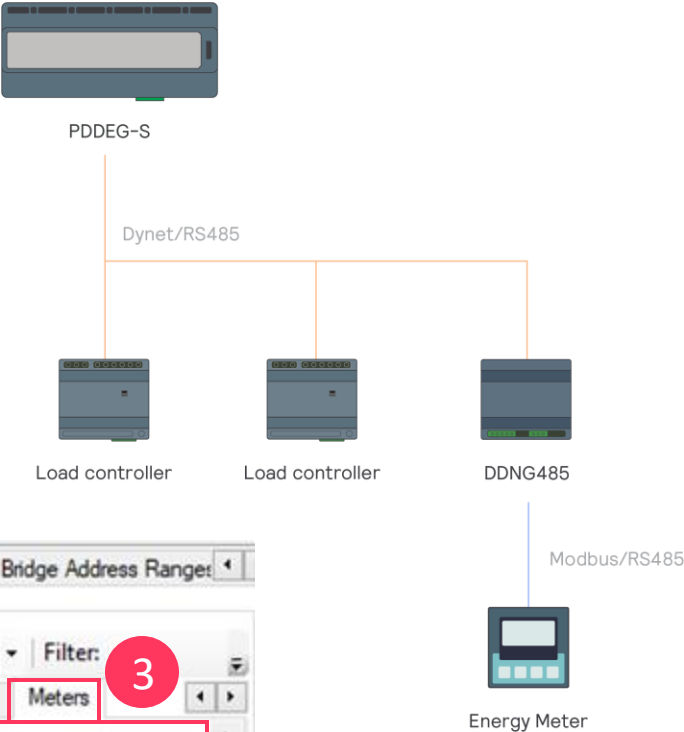
Configure Modbus RS485 metering with DDNG485

Architecture FLX - Multisite

Metered energy - Modbus RS485 | Add and configure Modbus meters

To add Modbus meters:

- 1. In the **System** view, add new **DDNG485** device under **PDDEG-S**, and click on it.
- 2. Go to the **Create Device** tab.
- 3. Select **Meters** tab.
- 4. Choose **Modbus Meter** from the existing list or click **Manage Custom Meters**



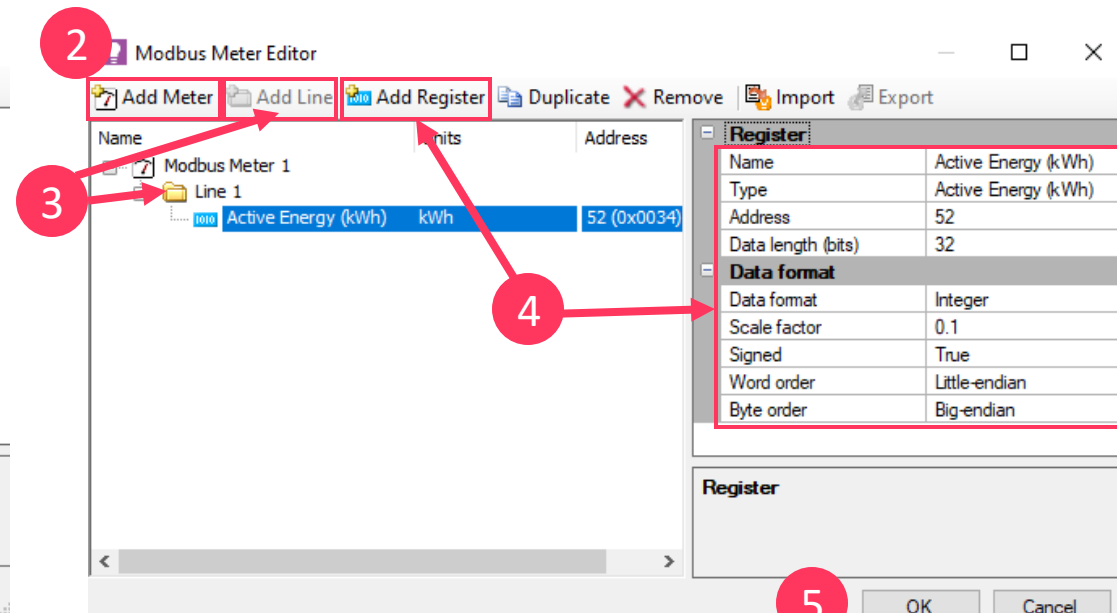
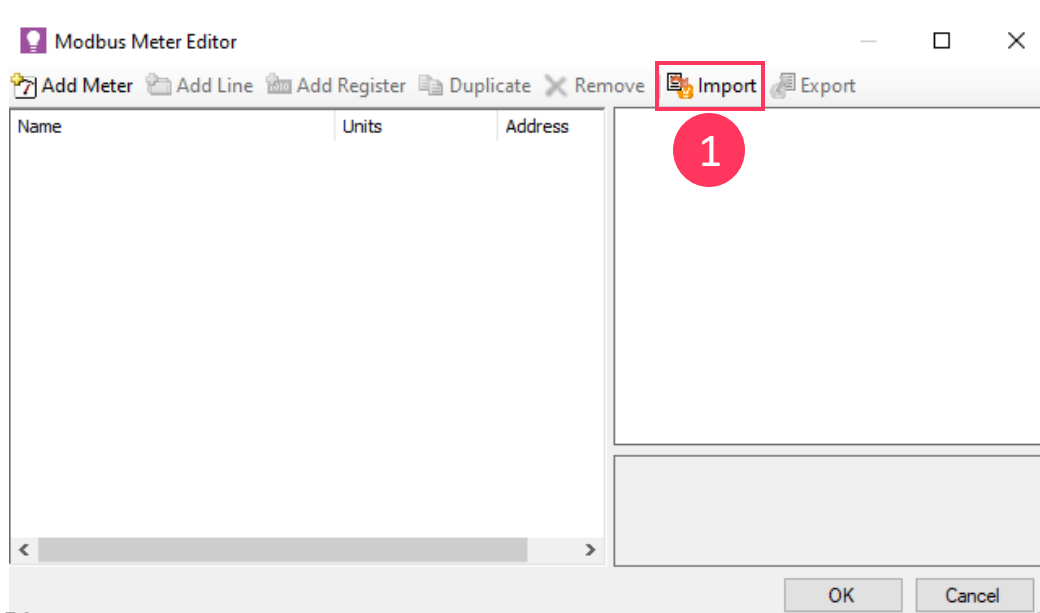
The screenshot displays the 'System View' window with a tree structure on the left and a 'Create Device' dialog on the right. In the tree, 'Multisite' is expanded to show 'Network Devices', which contains 'PDDEG-S'. Under 'PDDEG-S', 'DDNG485' is highlighted with a red circle labeled '1'. The 'Create Device' dialog has tabs for 'Device Properties', 'Connection Settings', 'Schedules', and 'Bridge Address Range'. The 'Create Device' tab is active and highlighted with a red circle labeled '2'. Within this tab, the 'Available Products' section has a 'Filter' dropdown set to 'Meters', which is also highlighted with a red circle labeled '3'. The 'Modbus Meter' category is expanded, showing a list of products including ABB, Circutor, Electro Industries, Schneider, and Socomec. A red arrow labeled '4' points from the 'Manage Custom Meters' button at the bottom of the dialog to the 'Modbus Meter' category in the product list.

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Metered energy - Modbus RS485 | Add and configure Modbus meters

When selected **Manage Custom Meters** :

1. Click **Import**, to load Modbus from the external *.mmx file, for example → Carel MT300W3200.mmx
- or,
2. Click **Add Meter**.
3. Create a **Line**.
4. **Add Register** and configure an **Active Energy** register, according to Modbus Meter technical documentation.
5. Click **OK**.



Metered energy - Modbus RS485 | Add and configure Modbus meters

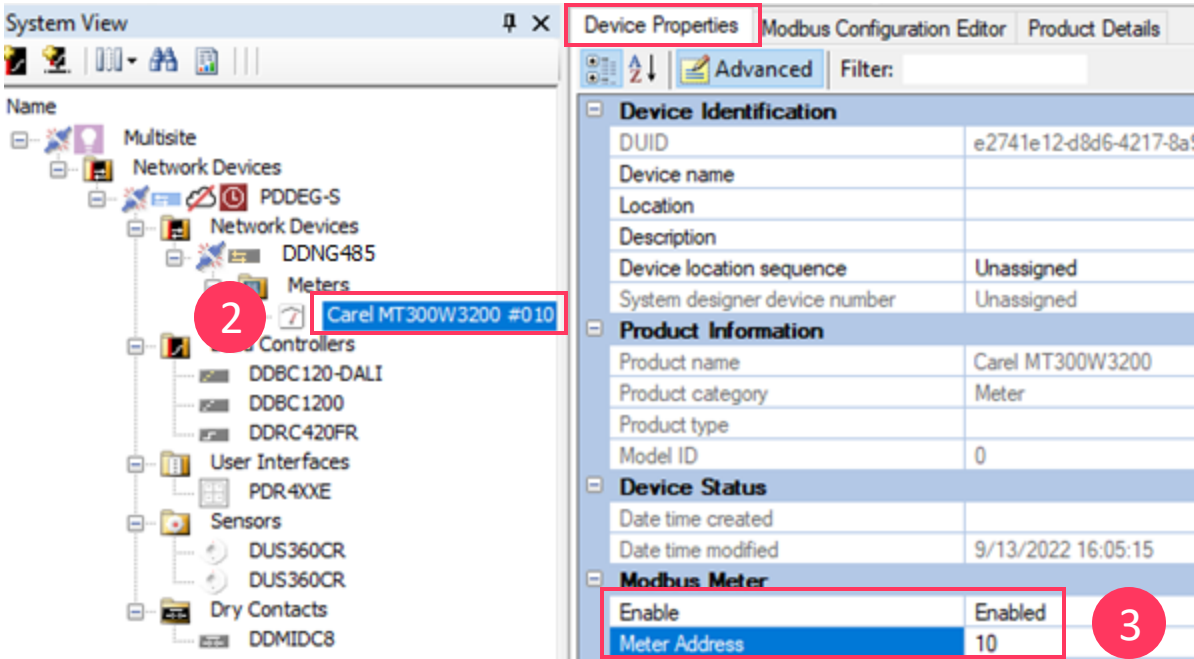
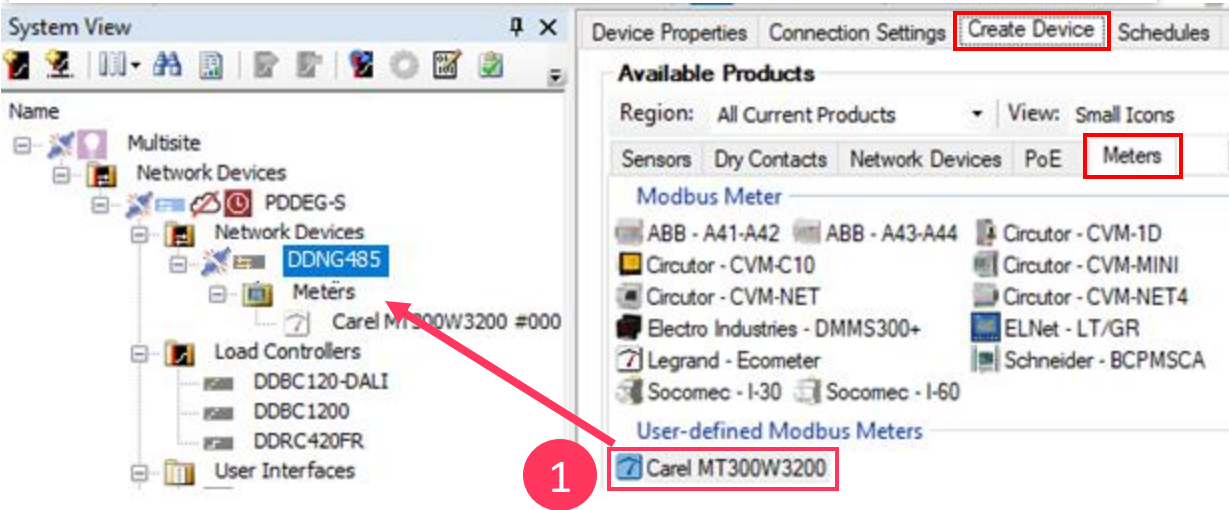
Custom meter will appear on **Meters** list (DDNG485 --> *Create Device* tab)

1. **Drag & Drop** Custom Meter under **DDNG485**.

From now onwards, all the steps are relevant for Modbus meters added from SB list or created as Custom Meters

2. **Click** on the Modbus Meter.

3 On the **Device Properties** tab, specify **Meter Address** and ensure meter is **Enabled**.



interact

Metered energy - Modbus RS485 | Add and configure Modbus meters

Having selected Modbus meter in the System view:

- 1. Go to **Modbus Configuration Editor** tab.
- 2. **Enable** an **Active Energy** register.
- 3. In a **Power Zone** column, assign desired **Power Zone** to the **Active Energy** register.

Device Properties **Modbus Configuration Editor** Product Details

Modbus Device Channel Assignment

1

Name	Enabled	Value	Units	Address	Power
1010 Phase L1-N (V)	<input type="checkbox"/>		V	0 (0x0000)	
1010 Phase L2-N (V)	<input type="checkbox"/>		V	2 (0x0002)	
1010 Phase L3-N (V)	<input type="checkbox"/>		V	4 (0x0004)	
1010 average phase-neutral S...	<input type="checkbox"/>		V	36 (0x0024)	
Assigned Circuits					
Voltage:					
1010 Phase L1-L2 (V)	<input type="checkbox"/>		V	6 (0x0006)	
1010 Phase L2-L3 (V)	<input type="checkbox"/>		V	8 (0x0008)	
1010 Phase L3-L1 (V)	<input type="checkbox"/>		V	10 (0x000A)	
1010 average phase-phase S...	<input type="checkbox"/>		V	38 (0x0026)	
Assigned Circuits					
Power factor:					
1010 phase L1	<input type="checkbox"/>		PF	46 (0x002E)	
1010 phase L2	<input type="checkbox"/>		PF	47 (0x002F)	
1010 phase L3	<input type="checkbox"/>		PF	48 (0x0030)	
1010 SE	<input type="checkbox"/>		PF	49 (0x0031)	
Assigned Circuits					
SE:					
1010 phase sequence	<input type="checkbox"/>		Other	50 (0x0032)	
1010 frequency (Hz)	<input type="checkbox"/>		Hz	51 (0x0033)	
1010 Active energy SE (kWh)	<input checked="" type="checkbox"/> 2		kWh	52 (0x0034)	

Edit Power Zones...

Device Properties **Modbus Configuration Editor** Product Details

Modbus Device Channel Assignment

Name	Ena...	Value	Units	Address	Power Zone
THD:					
Current:					
Voltage:					
Voltage:					
Power factor:					
SE:					
1010 phase sequence	<input type="checkbox"/>	Other		50 (0x0032)	
1010 frequency (Hz)	<input type="checkbox"/>	Hz		51 (0x0033)	
1010 Active energy SE (kWh)	<input checked="" type="checkbox"/>	kWh		52 (0x0034)	3
Assigned Circuits					
Apparent power:					
Reactive inductive energy					
Reactive capacitive energy?					

HVAC
Lighting
Clear

interact

Metered energy - Modbus RS485 | Additional DDNG485 configurations

In order to finalize **DDNG485** configuration as a Modbus gateway:

- 1. In the **System** view select **DDNG485**.
- 2. Verify **Comm Port1** and **Com Port 2** configurations.
- 3. Cross check routing setting on the **Routing** tab.
- 4. On the **Metrics** tab, ensure **Total Energy Consumption** metric **Polling Interval** is set to **15** minutes.

New Routing Delete Routing Copy Paste Route RS-485 and Default Multicast Service

Enable	From	To
	<input checked="" type="checkbox"/> Comm Port 2, Trunk	Comm Port 1, Spur
	<input checked="" type="checkbox"/> Comm Port 1, Spur	Comm Port 2, Trunk
	<input checked="" type="checkbox"/> Internal Messages	Comm Port 2, Trunk
	<input checked="" type="checkbox"/> Metrics Collection	Comm Port 2, Trunk

Metric

Metric type	Total Energy Consumption (Modbus)
Metric	Enabled
Method	Polling
Port type	Comm Port
Protocol	Modbus Gateway
Polling interval	00:15:00
Number of registers	4
Data format	Integer
Scale factor	0.01
Signed	True
Word order	Big-endian
Byte order	Big-endian

Device Properties Connection Settings Create Device Bridge Address Ranges Ports Routing Switches

Description

Comm Port 1, Port Type: DyNet, B...
Comm Port 2, Port Type: Modbus ...

Comms

Port type	DyNet
Baudrate	9600
Delay (milliseconds)	10
Retry delay (milliseconds)	64
Port mode	Half duplex
Data bits	Data bits 8
Parity	Parity none
Stop bits	Stop bits 1
DMX max Channel	65535
Trust DyNet	True
Pass Non DyNet	False
Pass DyNet	True
Handshake	None
Zero DMX levels enabled	True
Modem	False
Echo	False
Query Delay	65535

Device Properties Connection Settings Create Device Bridge Address Ranges Ports Routing Switches

Description

Comm Port 1, Port Type: DyNet, B...
Comm Port 2, Port Type: Modbus ...

Comms

Port type	Modbus Gateway
Baudrate	9600
Delay (milliseconds)	10
Retry delay (milliseconds)	64
Port mode	Half duplex
Data bits	Data bits 8
Parity	Parity none
Stop bits	Stop bits 1
DMX max Channel	65535
Trust DyNet	True
Pass Non DyNet	True
Pass DyNet	True
Handshake	None
Zero DMX levels enabled	True
Modem	False
Echo	False
Query Delay	65535

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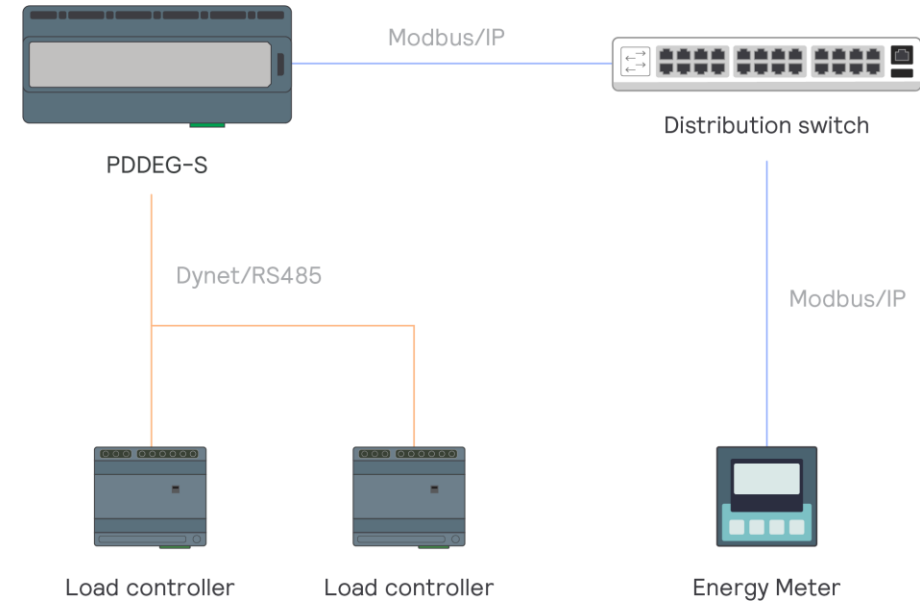
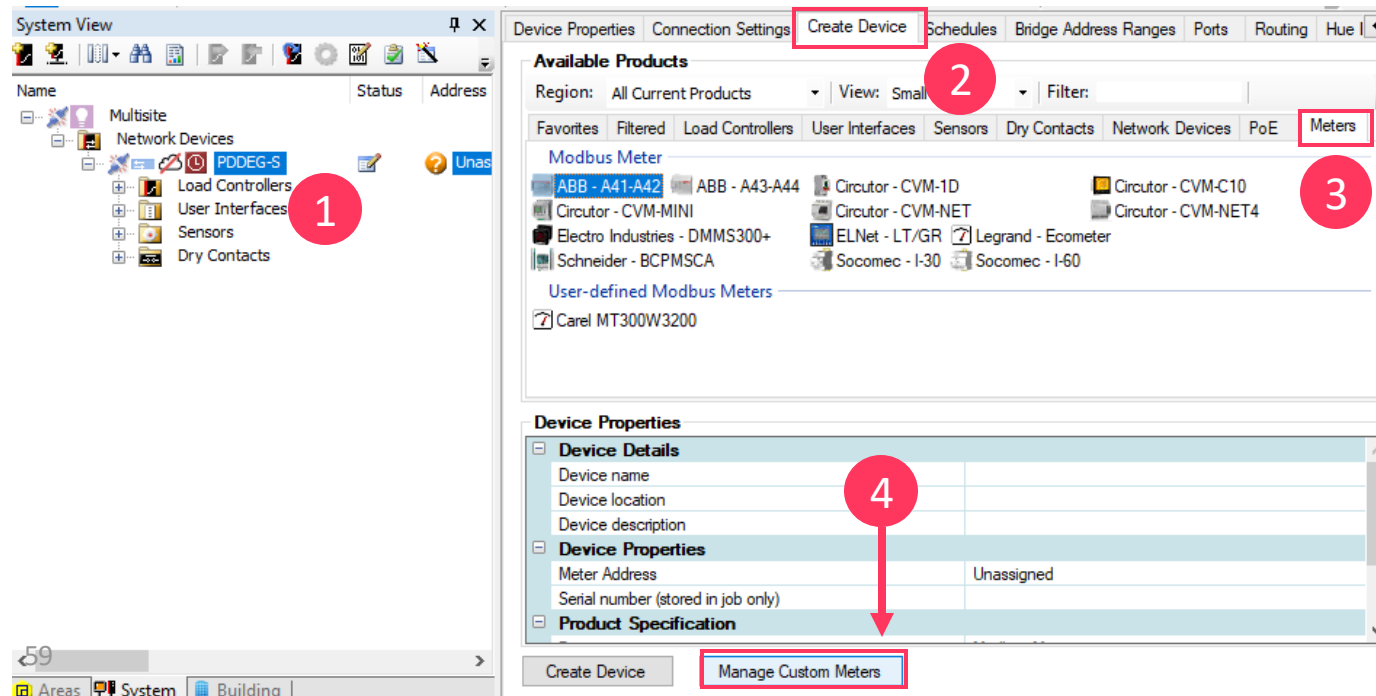
Configure Modbus IP metering

Architecture FLX - Multisite

Metered energy - Modbus IP | Add and configure Modbus Meters**Step B2: Open Job file from the Cloud**

To add Modbus meters:

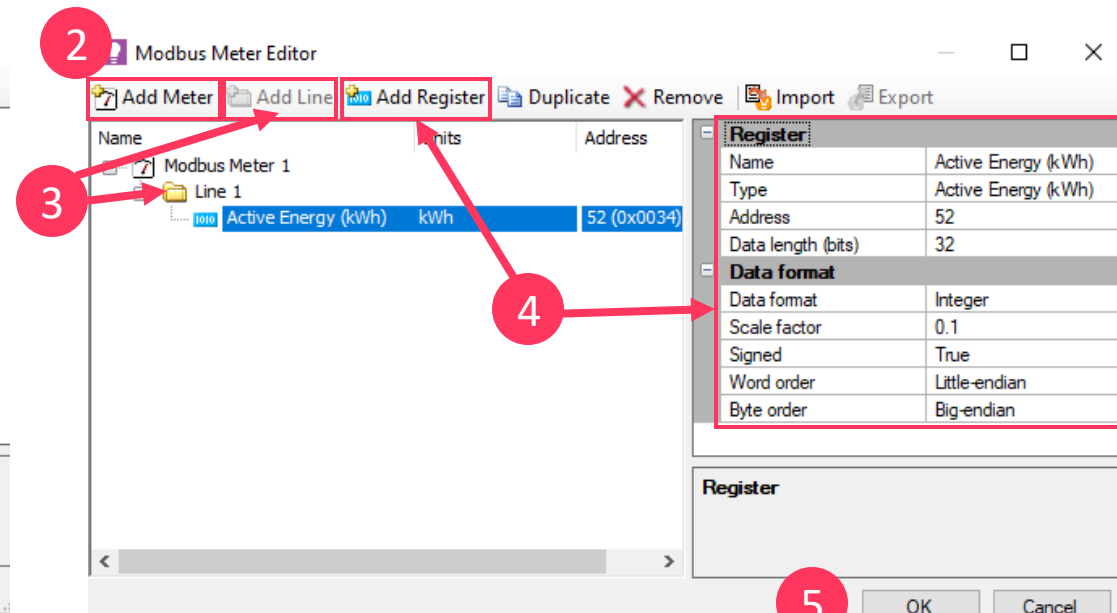
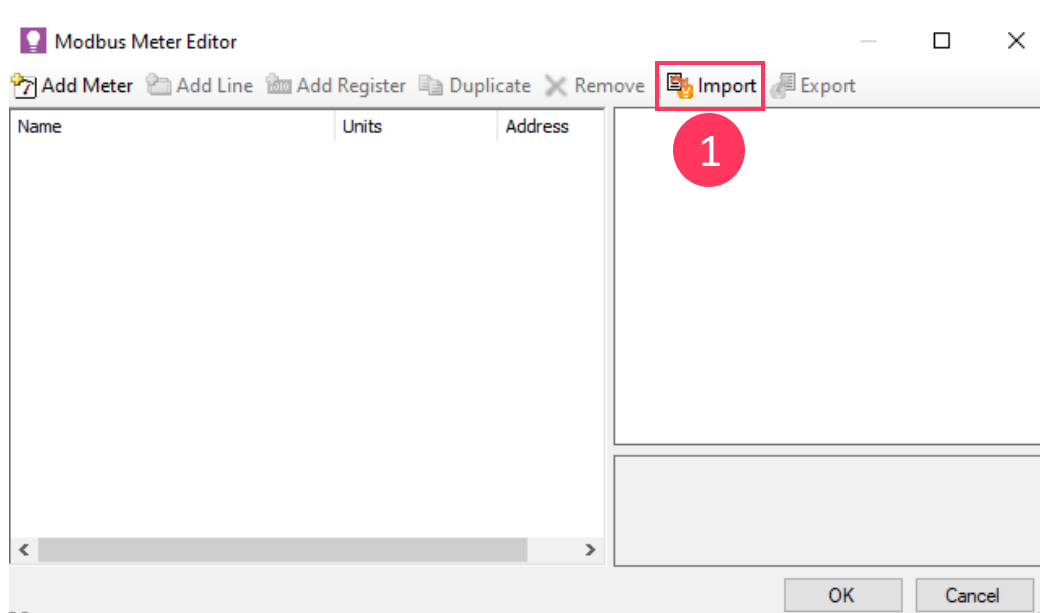
1. In the **System** view, click on **PDDEG-S**.
2. Go to the **Create Device** tab.
3. Select **Meters** tab.
4. Click **Manage Custom Meters**



Metered energy - Modbus IP | Add and configure Modbus Meters

When selected **Manage Custom Meters** :

1. Click **Import**, to load Modbus from the external file
or,
2. Click **Add Meter**
3. Create a **Line**
4. **Add Register** and configure an **Active Energy** register, according to Modbus Meter technical documentation.
5. Click **OK**

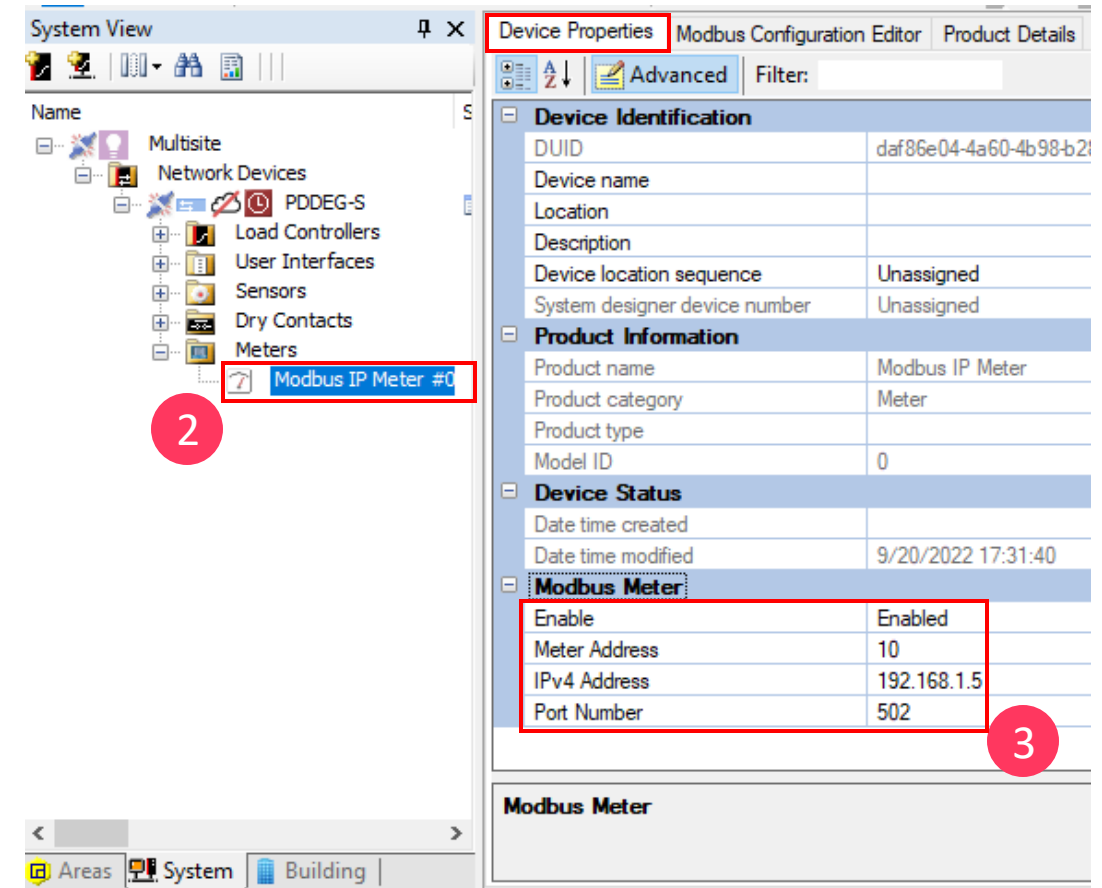
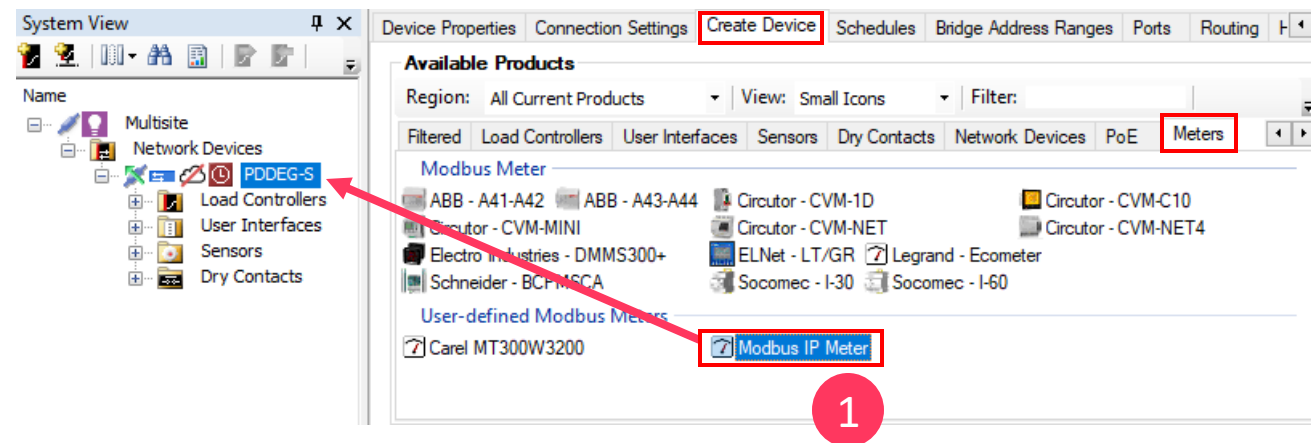


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Metered energy - Modbus IP | Add and configure Modbus Meters

Custom meter will appear on **Meters** list (*PDDEG-S--> Create Device tab*)

1. **Drag & Drop** custom meter under **PDDEG-S**
2. **Click** on the Modbus Meter
3. On the **Device Properties** tab, specify **Meter Address** and ensure meter is **Enabled**. Fill in meter **IP address** and **Port number**.



interact

Metered energy - Modbus IP | Add and configure Modbus Meters

Having selected Modbus meter in the System view:

- 1. Go to **Modbus Configuration Editor** tab.
- 2. **Enable** an **Active Energy** register.
- 3. In a **Power Zone** column, assign desired **Power Zone** to the **Active Energy** register.

Device Properties **Modbus Configuration Editor** Product Details

Modbus Device Channel Assignment

1

Name	Enabled	Value	Units	Address	Power
1010 Phase L1-N (V)	<input type="checkbox"/>		V	0 (0x0000)	
1010 Phase L2-N (V)	<input type="checkbox"/>		V	2 (0x0002)	
1010 Phase L3-N (V)	<input type="checkbox"/>		V	4 (0x0004)	
1010 average phase-neutral S...	<input type="checkbox"/>		V	36 (0x0024)	
Assigned Circuits					
Voltage:					
1010 Phase L1-L2 (V)	<input type="checkbox"/>		V	6 (0x0006)	
1010 Phase L2-L3 (V)	<input type="checkbox"/>		V	8 (0x0008)	
1010 Phase L3-L1 (V)	<input type="checkbox"/>		V	10 (0x000A)	
1010 average phase-phase S...	<input type="checkbox"/>		V	38 (0x0026)	
Assigned Circuits					
Power factor:					
1010 phase L1	<input type="checkbox"/>		PF	46 (0x002E)	
1010 phase L2	<input type="checkbox"/>		PF	47 (0x002F)	
1010 phase L3	<input type="checkbox"/>		PF	48 (0x0030)	
1010 SE	<input type="checkbox"/>		PF	49 (0x0031)	
Assigned Circuits					
SE:					
1010 phase sequence	<input type="checkbox"/>		Other	50 (0x0032)	
1010 frequency (Hz)	<input type="checkbox"/>		Hz	51 (0x0033)	
1010 Active energy SE (kWh)	<input checked="" type="checkbox"/>		kWh	52 (0x0034)	

Edit Power Zones...

Device Properties **Modbus Configuration Editor** Product Details

Modbus Device Channel Assignment

Name	Ena...	Value	Units	Address	Power Zone
THD:					
Current:					
Voltage:					
Voltage:					
Power factor:					
SE:					
1010 phase sequence	<input type="checkbox"/>	Other	50 (0x0032)		
1010 frequency (Hz)	<input type="checkbox"/>	Hz	51 (0x0033)		
1010 Active energy SE (kWh)	<input checked="" type="checkbox"/>	kWh	52 (0x0034)		
Assigned Circuits					
Apparent power:					
Reactive inductive energy					
Reactive capacitive energy?					

3

HVAC
Lighting
Clear

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Metered energy - Modbus IP | PDDEG-S configuration

In order to finalize **PDDEG-S** configuration for Metered Energy:

- 1. On the **Metrics** tab, ensure that **Total Energy Consumption** metric has a **Polling Interval** of **15** minutes

Metric	
Metric type	Total Energy Consumption (Modbus)
Metric	Enabled
Method	Polling
Port type	Ethernet
Protocol	Modbus gateway
Polling interval	00:15:00
Number of registers	2
Data format	Integer
Scale factor	0.1
Signed	True
Word order	Little-endian
Byte order	Big-endian

1

interact

Plan installation and commissioning

Architecture FLX - Multisite

Plan installation | Connectivity audit

Order hardware

System Designer tool can generate reports with complete overview of all designed in system components. Make sure all the hardware required for the project have been ordered.

Perform a connectivity audit

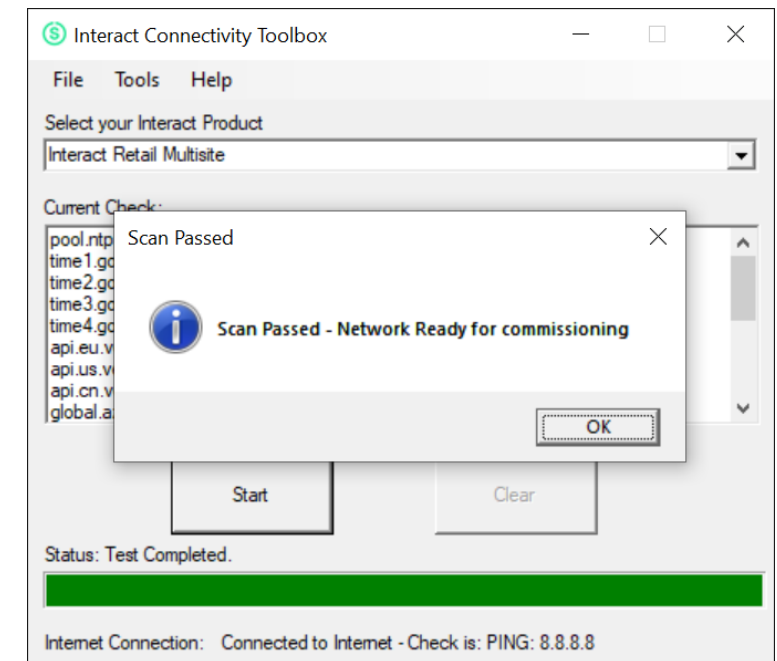
IT department of customer should be informed about number of endpoints which must be accessible from the internal network in order to provide gateway connectivity to Interact Cloud.

*More information is available on the **Signify Partner Portal** in the **Security Statement** document.*

*To ensure customer IT infrastructure is ready for the Multisite installation, it is advised to run on the customer site an **Interact Connectivity Toolbox**.*

Ideally, this should happen prior to the commissioning date, with close cooperation between Signify and customer`s IT department.

1. Visit **Signify Partner Portal** and download **Interact Connectivity Toolbox** software and **Technical Note** document
2. Follow all the steps described in the **Technical Note**



Plan commissioning | Preparation**Request work order for Site Engineer**

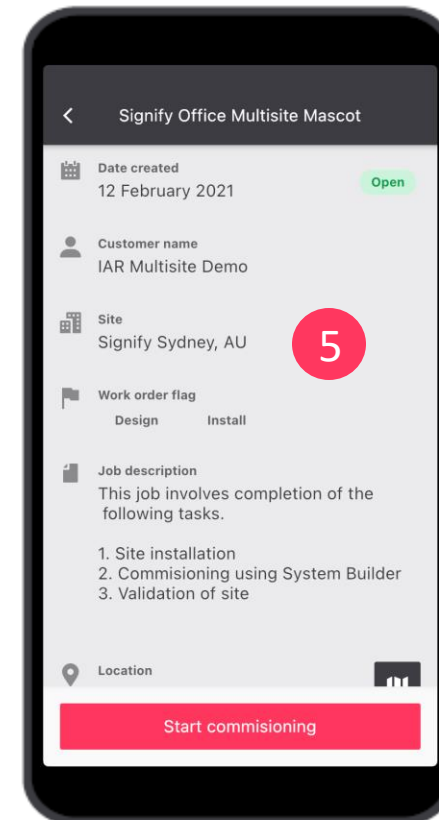
Before onsite activities, a work order for Site Engineer must be requested and proceeded by Global Software Operations team. The installer receives an email when the work order is assigned.

Install Interact Retail Install app

*Before going onsite, install the **Interact Retail Install app** on the phone.*

It is recommended to check if the **Interact Retail Install app** functions as expected to prepare for the onsite commissioning.

1. Open the app on your device
2. Select region: **Global**
3. Enter your username (email address), then tap **Next**
4. Enter your password. Tap **Sign In**
5. Select the **work order**. It is expected to observe work order summary page with a **Start Commissioning** button. **Do not start commissioning** before site visit.



interact

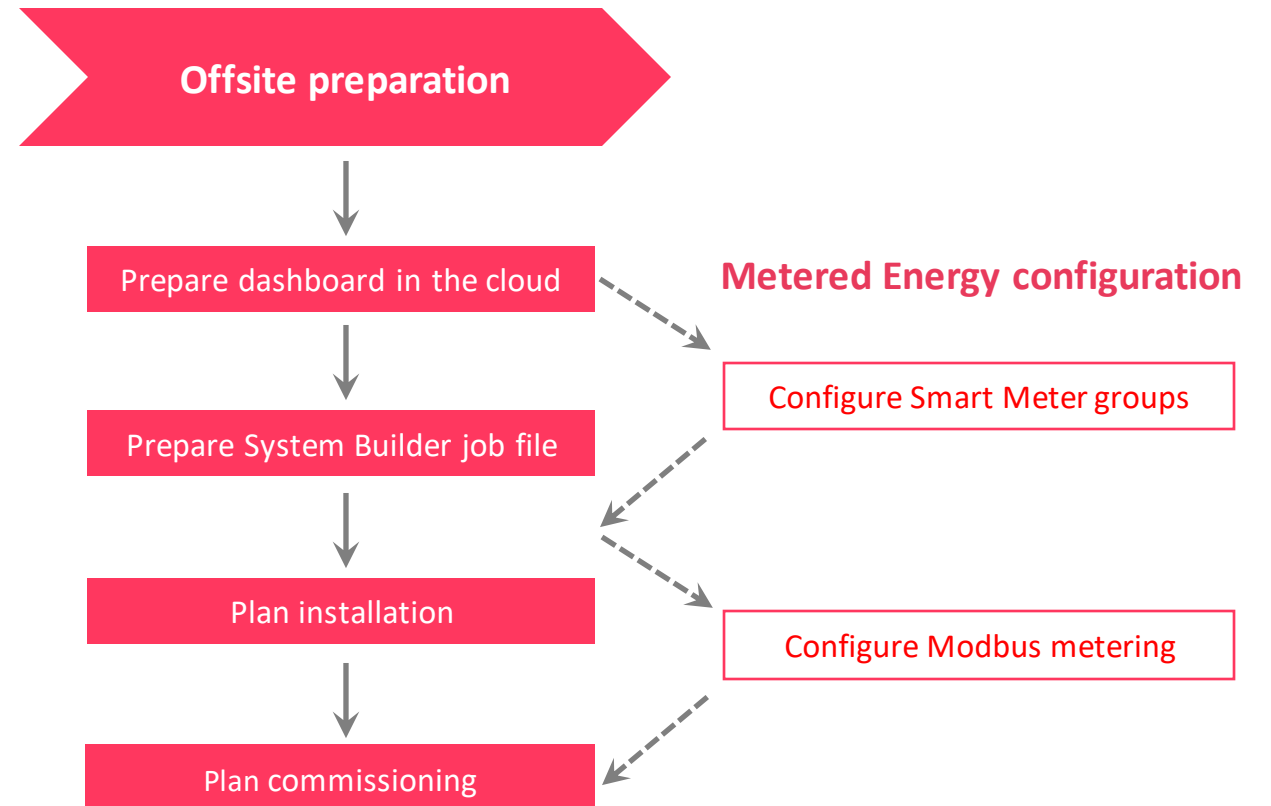
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Lesson review

Architecture FLX - Multisite

Lesson review | Onsite installation, commissioning and validationIn this lesson, you have learnt:

- Which are the steps to be taken in the offsite commissioning.
- Base Link Areas need to be defined and linked to each channel before uploading the System Builder file to the cloud. Plus, all the areas have 64 presets, devices have unique names, and the gateway have 100 schedules, 30 public holidays, and 30 special events.
- Manual Override integration features need the task and join additional configuration.
- Metered Energy configurations are only relevant for projects that are meant for monitoring of an Active Energy consumption through Modbus meters.



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