

C-Bus Error Reporting Application

Application Note

Operating instructions and reference information for the Enhanced C-Bus Error Reporting Application.

03/2022

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Introduction

Document Scope

This document describes an enhanced Error Application (V1.11.0). The purpose of this document is to guide users on the following:

- Summary of enhanced Error Application (V1.11.0).
- Upgrade firmware from V1.10.0 and older versions.
- A step-by-step procedure to create different types of error objects.

This document is applicable to the products as follows:

Product Name	Commercial Reference
Schneider Electric C-Bus Network Automation Controller	LSS5500NAC
Schneider Electric Wiser for C-Bus Automation Controller	LSS5500SHAC
Clipsal C-Bus Network Automation Controller	5500NAC
Clipsal Wiser for C-Bus Automation Controller	5500SHAC
SpaceLogic C-Bus Network Automation Controller	5500NAC2
SpaceLogic C-Bus Application Controller	5500AC2

Overview of Error Reporting Application

The C-Bus Error Reporting Application is used to report, acknowledge, and manage error information detected or generated by the C-Bus devices. The C-Bus devices may monitor and detect error conditions, and report those conditions using the C-Bus Error Reporting Application.

The reports contain information on the source, severity and nature of the error or fault condition. If a monitored event is operating normally, then it is reported as *OK*.

A device that receives error reporting application message acts upon the information in an appropriate manner, it also acknowledges the error and clears the history of severe errors in supporting devices.

Enhanced Error Application

With the V1.10.0 and older Error Application versions:

- The user interface to create different error objects(Virtual/Physical) for different devices was complex.
- For each error, user needs to create two different objects for the *Most Severe* and *Most Recent* error.
- The label/tag creation for device/channel was not possible.
- The process to create the visualization element for each attribute of error object was more time consuming.
- There was no user-friendly provision to acknowledge and clear errors.

With the enhanced Error Application (V1.11.0):

- The error reporting objects are categorized as below:
 - Device Error
 - Unit Error
 - Channel Error
 - Channel Aggregate Error
 - Line A Error
 - Line B Error
 - Network Error
 - Project Error
- A user can create any type of above error object with new interface using simple drop-down selection and creating label/tag for device and channel.
- There is no need to create separate error objects for *Most Severe* and *Most Recent* error. Same object will store the properties for both the types(*Most Recent* and *Most Severe*).
- There are enhancements done on creating Visualization elements for Error objects. A user needs to create only two visualization elements(*Most Recent Error* / *Most Severe Error*) for each Error object. This will speed up configuration time.
- A user can monitor *Most Recent Error*, *Most Recent Severity*, *Most Recent Acknowledge* status, *Most Severe Error*, *Most Severe severity*, *Most severe Acknowledgement* status with just two visualization elements.
- A user can perform an Acknowledge (Most Recent and Most Severe) and Clear operation on PC/Tablet and Smart phone view.

Steps to use enhanced Error Application

This section describes steps to use enhanced Error Application for V1.10.0 or older versions.

1. Backup the project .
NOTE: This is required to ensure that user can revert to existing project configuration.
2. Delete all the Error objects from the *Objects* tab and all tags under *Error (206)* application from the *Tag map* tab.
3. Upgrade latest Firmware .
NOTE: Refer the user manual for reference.

4. Re-create all the Error objects with the tags.

NOTE: If user is already on V1.11.0 version, the error objects can be created with the latest implementation, for details see [Creating Error Objects](#), page 8.

Recommendations:

- Ensure to backup the project file before firmware upgrade. Failing to backup, user will not have option to revert back to existing project configuration.
- If user has existing error reporting objects, do not restore that project file directly on V1.11.0 version. Instead make sure to follow the above mentioned upgrade procedure for the same.

Post-requisite: Upgrade the firmware version to V1.11.0 and refer subsequent sections in document.

Creating Error Objects

There are three main types of Error Objects that can be created in a controller. The Error Objects are as follows:

- Device Error
 - Unit Error
 - Channel Error
 - Channel Aggregate Error
 - Line A Error
 - Line B Error
- Network Error
- Project Error

Device Error

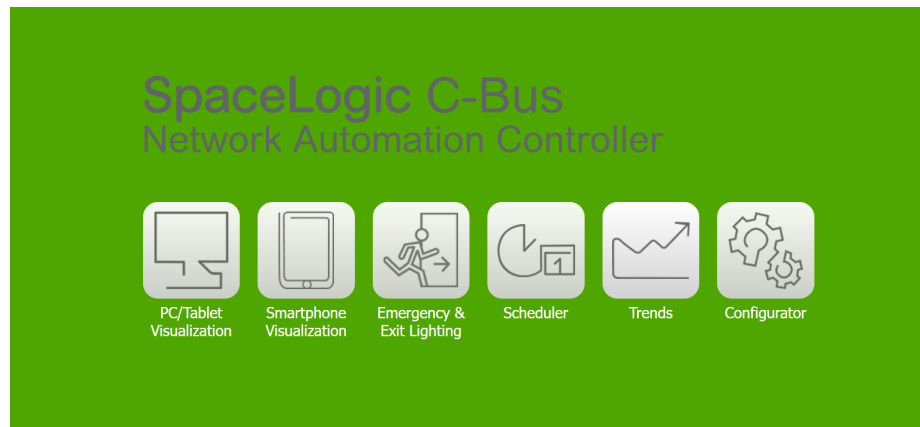
The Error Objects are created for different errors based on the device type.

Steps to create Device Error

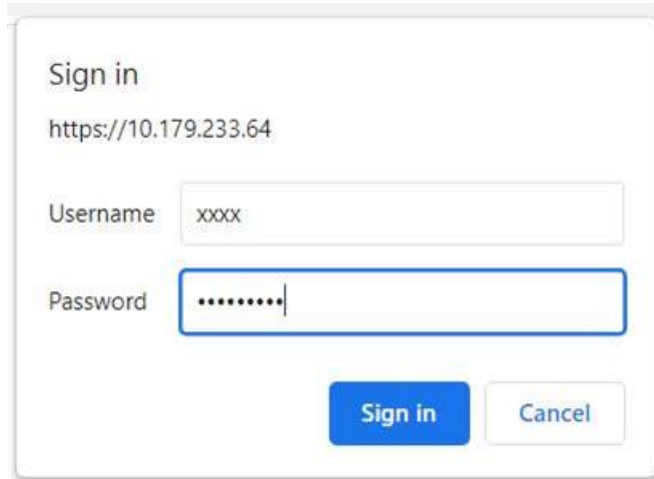
This section describes a procedure to create device error.

Prerequisites: The Controller home page must already be open.

1. Select the *Configurator* icon from the Controller home page.



2. Enter the admin credentials and click the **Sign in** button.

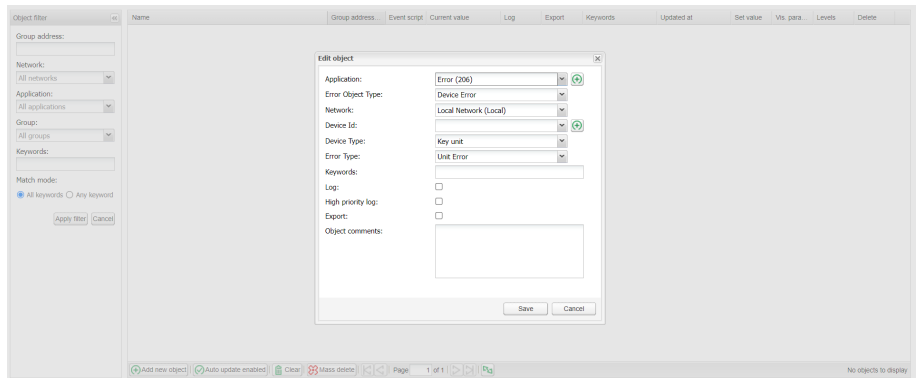
A sign-in dialog box with a title bar. The title is "Sign in". Below the title is the URL "https://10.179.233.64". There are two input fields: "Username" with the text "xxxx" and "Password" with masked characters ".....". At the bottom right are two buttons: "Sign in" (blue) and "Cancel" (white with blue border).

NOTE: The Home page appears on the screen.

3. Select the *Objects* tab and click the **Add new object** button.

Step Result: The *Edit object* window appears on the screen.

4. Select *Error* from the *Application* menu.

A screenshot of a software interface. On the left is a sidebar with filters for Group address, Networks, Applications, Groups, Keywords, and Match mode. The main area shows a table with columns: Name, Group address, Event script, Current value, Log, Export, Keywords, Updated at, Set value, Vis. para, Levels, Delete. An "Edit object" dialog box is open in the foreground. It has fields for Application (Error (206)), Error Object Type (Device Error), Network (Local Network (Local)), Device ID, Device Type, Error Type (Key unit), and Keywords (Unit Error). There are checkboxes for Log, High priority log, and Export. At the bottom is a text area for Object comments and Save/Cancel buttons.

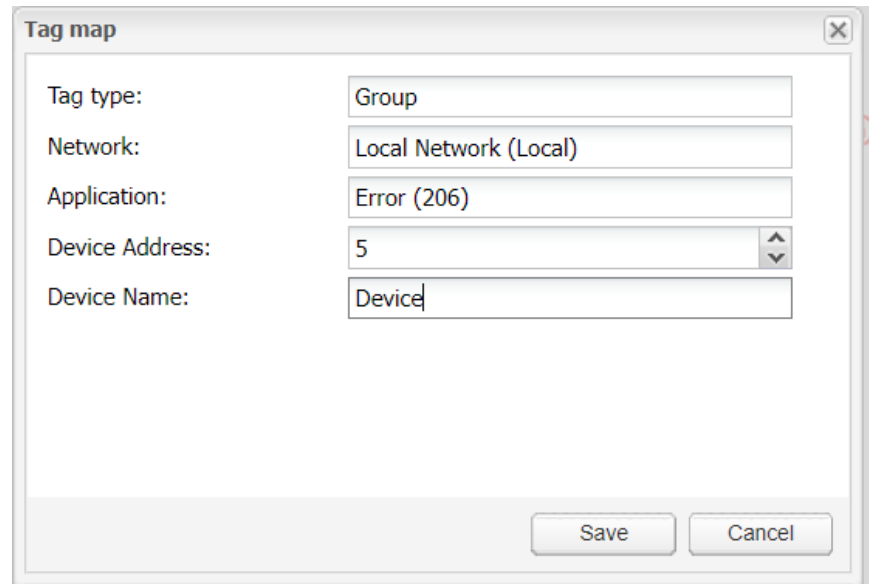
5. Select *Device Error* from the *Error Object Type* menu.

6. Select a network from the *Network* menu.

7. Select an Id from the *Device Id* menu.

NOTE: The steps to create a *Device Id* are as follows:

- Click the create Device Id  icon.
- Enter the *Device Address* and the *Device Name*.



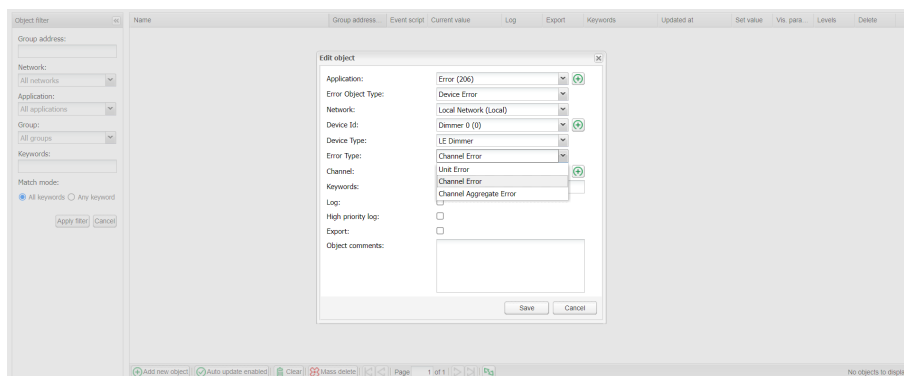
The image shows a 'Tag map' dialog box with the following fields and values:

Field	Value
Tag type:	Group
Network:	Local Network (Local)
Application:	Error (206)
Device Address:	5
Device Name:	Device

At the bottom right of the dialog box are two buttons: 'Save' and 'Cancel'.

- Click the **Save** button.
8. Select the type of device from the *Device Type* menu.

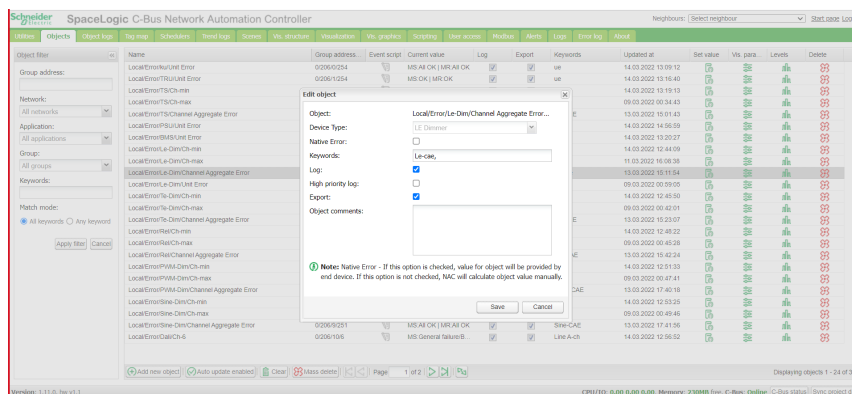
NOTE: Select the device type for which the Device Id has been created.
Example: LE Dimmer, Key Unit, DALI/DSI and so on.

9. Select the type of error from the *Error Type* menu.**NOTE:**

- The error types will be available based on the *Device type* selection.

Device Type	Supported Error Type
Key Unit	Unit Error
Dimmer	Unit Error, Channel Error, and Channel Aggregate Error
DALI/DSI	Unit Error, Channel Error, and Channel Aggregate Error, Line A Error, Line B Error

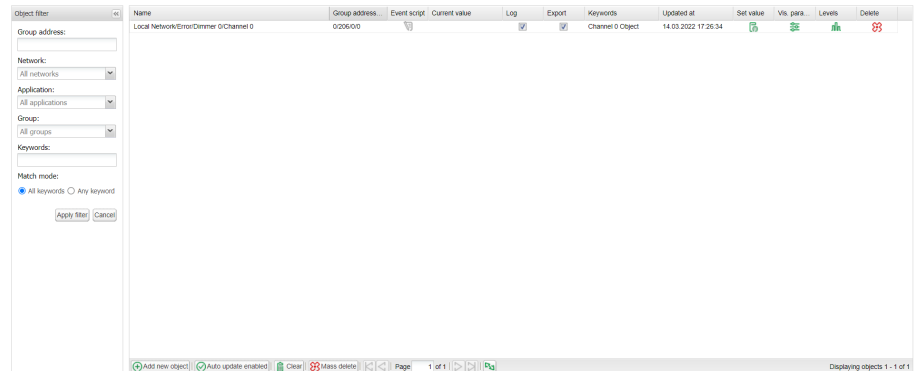
- When *Channel Aggregate Error* is selected as *Error type*, a *Native Error* check box appears on the screen.
- When *Native Error* check box is selected, then the value for object will be provided by the end device and the Controller will not calculate value for this object.
- When *Native Error* check box is not selected, the Controller will calculate object value manually. By default, the check box may be cleared.



- Click the **Save** button.

NOTE: The other Device Error objects such as *Unit Error*, *Channel Error*, *Channel Aggregate Error*, *Line A Error*, and *Line B Error* can be created for the different devices similarly based on the Device Types.

Step Result: A new object is created and is listed in the *Objects* tab.



Network Error

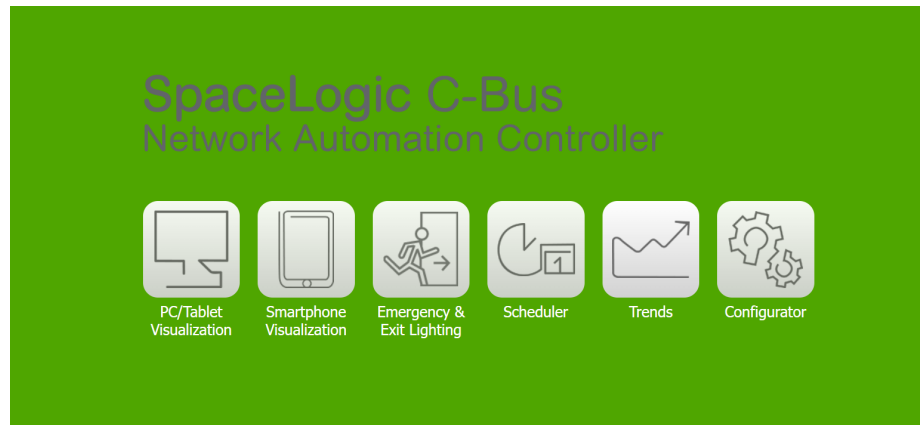
The *Network Error* aggregates any error seen on the associated network by the Controller.

Steps to create Network Error

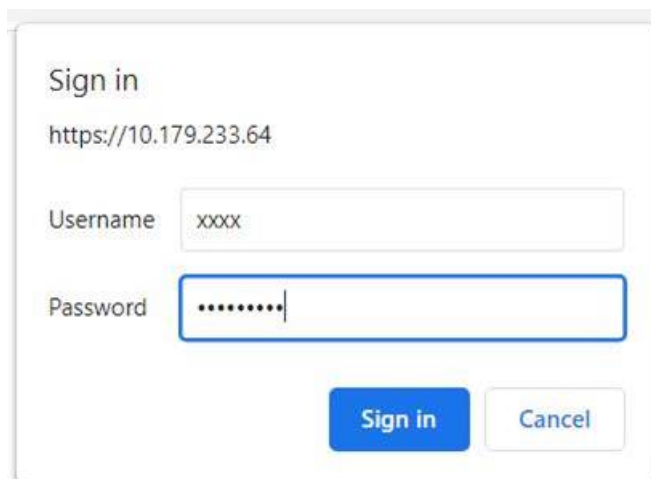
This section describes a procedure to create Network Error.

Prerequisites: The Controller home page must already be open.

- Select the *Configurator* icon from the Controller Home page.



2. Enter the admin credentials and click the **Sign in** button.



Sign in

https://10.179.233.64

Username

Password

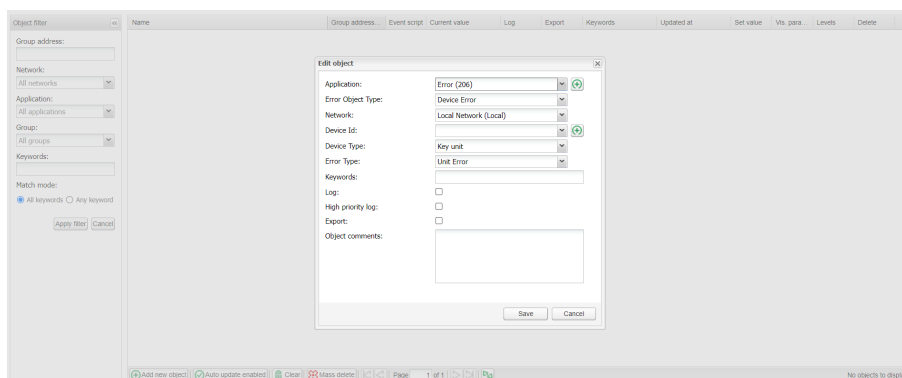
Sign in Cancel

NOTE: The Controller home page appears on the screen.

3. Select the *Objects* tab and click the **Add new object** button.

Step Result: The *Edit object* window appears on the screen.

4. Select *Error* from the *Application* menu.



Object filter

Group address:

Network:

Application:

Group:

Keywords:

Match mode:

☒ All keywords ☐ Any keyword

Apply filter Cancel

Edit object

Application: Error (206)

Error Object Type: Device Error

Network: Local Network (Local)

Device ID:

Device Type: Key unit

Error Type: Unit Error

Keywords:

Log: ☐

High priority log: ☐

Export: ☐

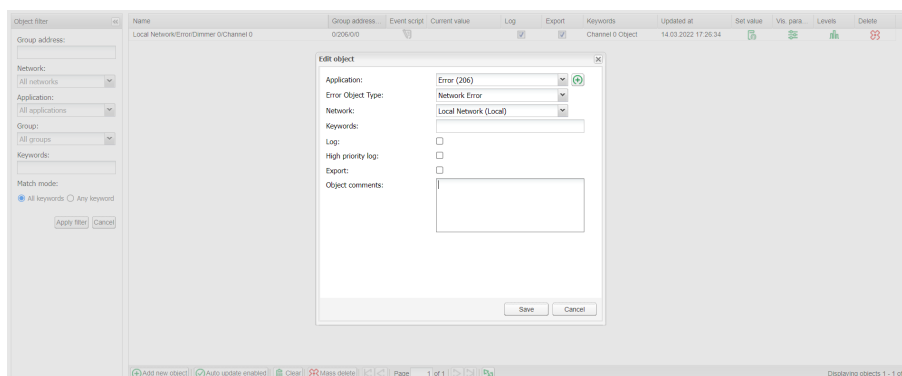
Object comments:

Save Cancel

Add new object Auto update enabled Clear Mass delete Page 1 of 1

No objects to display

5. Select *Network Error* from the *Error Object Type* menu.



Object filter

Group address:

Network:

Application:

Group:

Keywords:

Match mode:

☒ All keywords ☐ Any keyword

Apply filter Cancel

Edit object

Application: Error (206)

Error Object Type: Network Error

Network: Local Network (Local)

Keywords:

Log: ☐

High priority log: ☐

Export: ☐

Object comments:

Save Cancel

Add new object Auto update enabled Clear Mass delete Page 1 of 1

Displaying objects 1 - 1 of 1

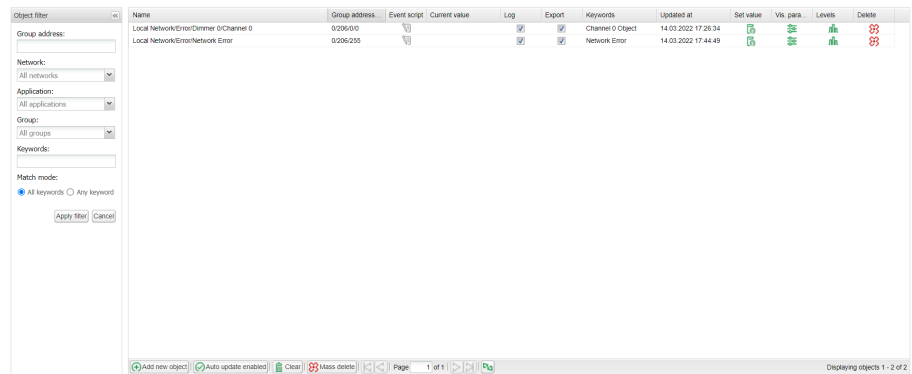
6. Select a network from the *Network* menu.

NOTE: Select all other optional fields as per requirement.

- Click the **Save** button.

NOTE: The Network Error object may be created under selected network with reserved device Id 255.

Step Result: A new object is created and is listed in the *Objects* tab.



Project Error

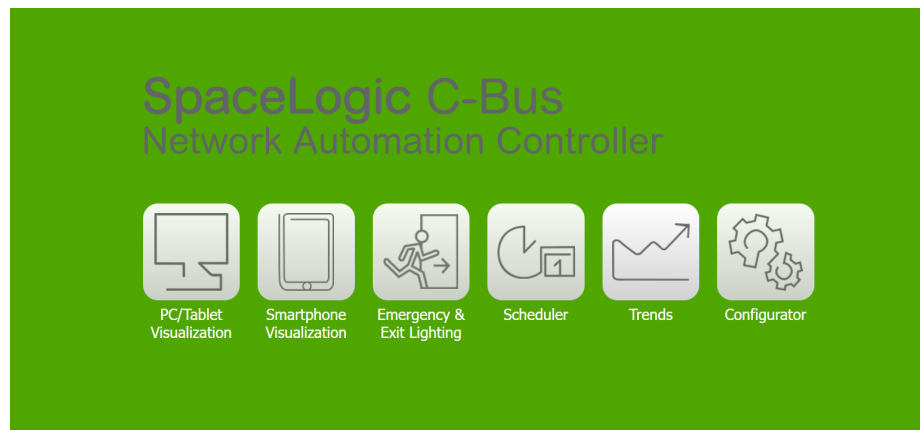
The *Project Error* aggregates any error seen by the Controller.

Steps to create Project Error

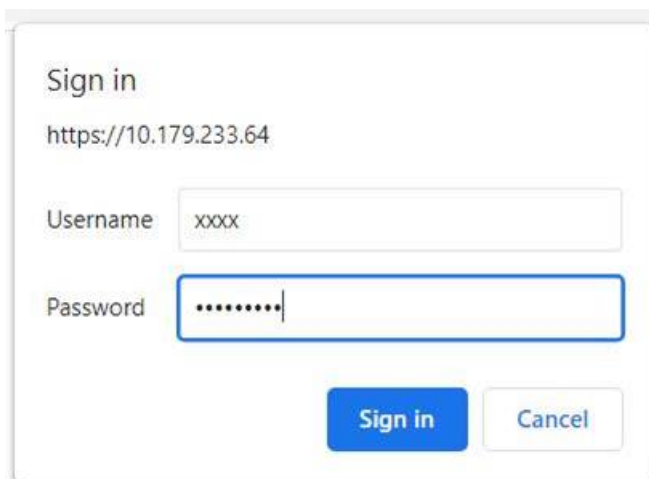
This section describes a procedure to create Project Error.

Prerequisites: The Controller home page must already be open.

- Select the *Configurator* icon from the Controller home page.



2. Enter the admin credentials and click the **Sign in** button.



Sign in

https://10.179.233.64

Username

Password

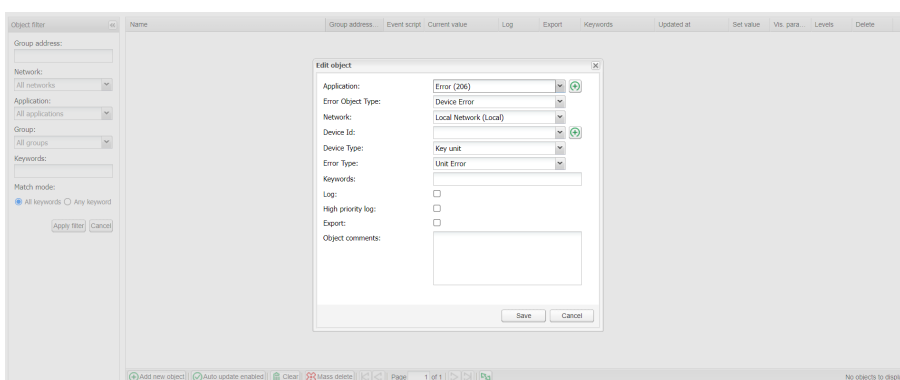
Sign in Cancel

NOTE: The Home page appears on the screen.

3. Select the *Objects* tab and click the **Add new object** button.

Step Result: The *Edit object* window appears on the screen.

4. Select *Error* from the *Application* menu.



Object filter

Group address:

Network:

Application:

Group:

Keywords:

Match mode:

☒ All keywords ☐ Any keyword

Apply filter Cancel

Edit object

Application: Error (206)

Error Object Type: Device Error

Network: Local Network (Local)

Device ID:

Device Type: Key unit

Error Type: Unit Error

Keywords:

Log: ☐

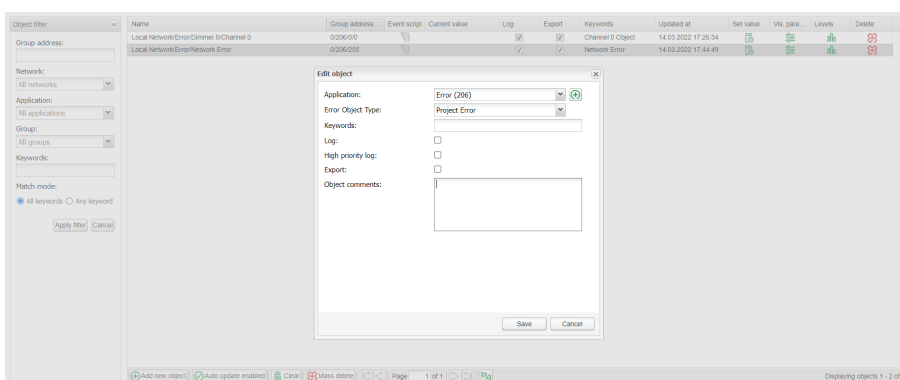
High priority log: ☐

Export: ☐

Object comments:

Save Cancel

5. Select *Project Error* from the *Error Object Type* menu.



Object filter

Group address:

Network:

Application:

Group:

Keywords:

Match mode:

☒ All keywords ☐ Any keyword

Apply filter Cancel

Name	Group address	Event script	Current value	Log	Export	Keywords	Updated at	Set value	Via para	Levels	Delete
Local Network/Error/Channel 0	0/206/0/0			☒	☒	Channel 0 Object	14.03.2022 17:26:34				
Local Network/Error/Network Error	0/206/255			☒	☒	Network Error	14.03.2022 17:44:49				

Edit object

Application: Error (206)

Error Object Type: Project Error

Keywords:

Log: ☐

High priority log: ☐

Export: ☐

Object comments:

Save Cancel

NOTE: Select all other optional fields as per requirement.

6. Click the **Save** button.

NOTE: The Project Error object may be created under reserved network 255 and with reserved device Id 255.

Step Result: A new object is created and is listed in the *Objects* tab.

Name	Group address	Event script	Current value	Log	Export	Keywords	Updated at	Set value	Vts para	Levels	Delete
Local Network/Error/Dimmer 0	0/206/0/0					Channel 0 Object	14.03.2022 17:26:34				
Local Network/Error/Network Error	0/206/255					Network Error	14.03.2022 17:44:49				
Network 255/Error/Project Error	255/206/255					Project Error Object	14.03.2022 17:52:00				

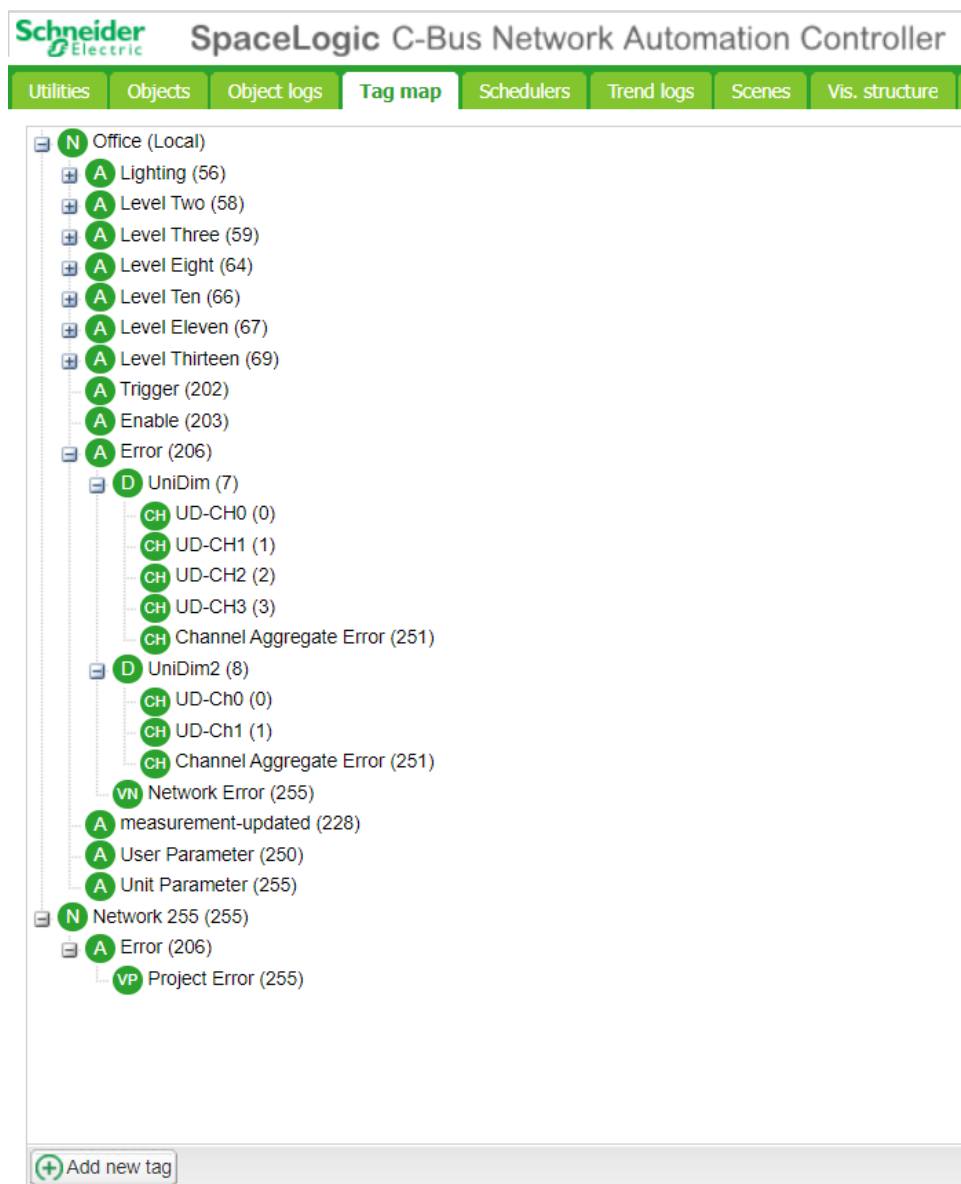
Object Filter: Group address: Network: Application: Group: Keywords: Match mode: All keywords Any keyword Apply filter Cancel

Buttons: Add new object Auto update enabled Clear Mass delete Page 1 of 1

Displaying objects 1 - 3 of 3

Tag map structure

The new tag map structure for Error Application is as follows:



Creating Visualization

This creates visualization elements for status and error messages on error page/plan.

Steps to create visualization parameters

This section describes a procedure to create visualization parameters.

1. Create the *Device Error* objects for Universal Dimmer with the below parameters.

NOTE: See, Steps to create Device Error, page 8.

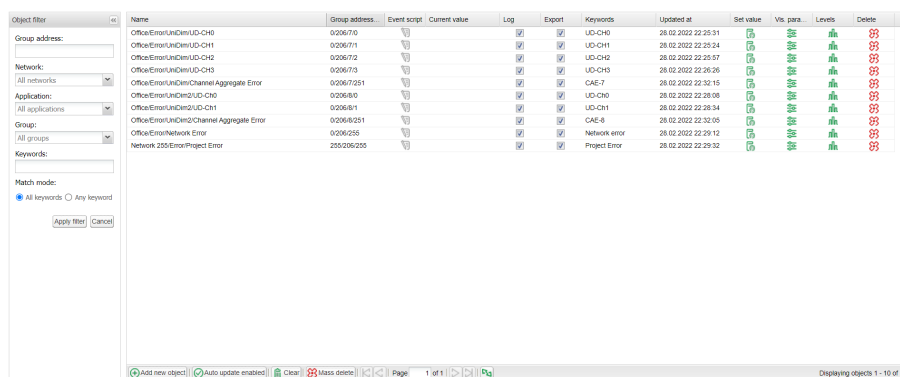
Name	Group Address	Error Object Type	Device Id	Device Type	Error Type	Channel
Office/ Error App/ UniDim/ UD-Ch0	0/206/7/0	Device	7	Universal Dimmer	Channel Error	0
Office/ Error App/ UniDim/ UD-Ch1	0/206/7/1	Device	7	Universal Dimmer	Channel Error	1
Office/ Error App/ UniDim/ UD-Ch2	0/206/7/2	Device	7	Universal Dimmer	Channel Error	2
Office/ Error App/ UniDim/ UD-Ch3	0/206/7/3	Device	7	Universal Dimmer	Channel Error	3
Office/ Error App/ UniDim2/ UD-Ch0	0/206/8/0	Device	8	Universal Dimmer	Channel Error	0
Office/ Error App/ UniDim2/ UD-Ch1	0/206/8/1	Device	8	Universal Dimmer	Channel Error	1
Office/ Error App/ UniDim/ Channel Aggregate Error	0/206/7/ 251	Device	7	Universal Dimmer	Channel Aggregate Error	NA
Office/ Error App/ UniDim2/ Channel Aggregate Error	0/206/8/ 251	Device	8	Universal Dimmer	Channel Aggregate Error	NA

2. Create the *Network Error* and *Project Error* objects with the below parameters.

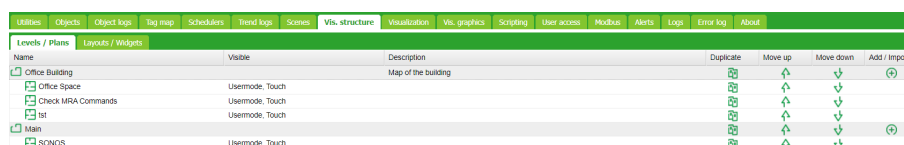
NOTE: See, Steps to create Network Error, page 12 and Steps to create Project Error, page 14.

Name	Group Address	Error Object Type
Office/Error App/Network Error	0/206/255	Network
Network 255/Error/Project Error	255/206/255	Project

Step Result: The new objects are created and it appears in the *Objects* tab.

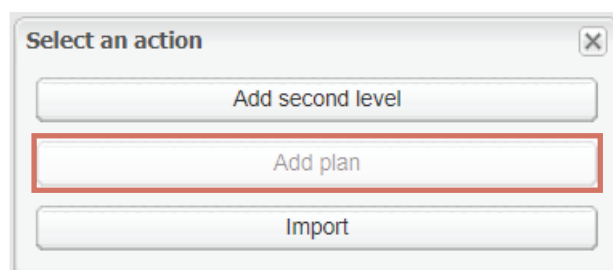


3. Select the *Vis. structure* tab from the home page and click the  icon in *Add/Import* section.



Step Result: The *Select an action* window appears on the screen.

4. Click the **Add plan** button.



Step Result: The *Plan* window appears on the screen.

5. Enter *Error* in the *Name* field and click the **Save** button.

Step Result: The *Error* page appears in the *Vis. structure* tab.

Utilities Objects Object logs Tag map Schedulers Trend logs Scores Vis. structure Visualization Vis. graphics Scripting User access Modbus Alerts Logs Error log About									
Levels / Plans		Layouts / Widgets		Visible		Description			
Name								Duplicate	Move up
Man									
Error						Usermode, Touch			

6. Select the *Visualization* tab from the home page and select the *Error page* from the structure view.
7. Click the **Unlock current plan for editing** button and ensure no visual elements are selected in the page/plan.
8. Select the *Image* tab from the Plan editor.
9. Select the required floor plant from the **Select image** menu.,
Note: Change the **Element position** and **Element size** if required.
10. Click the **Add to plan** button.

11. Click **Save and reload plan** button.



Step Result: The floor plan appears on the screen.

12. Select the *Visualization* tab from the home page and select the *Error page* from the structure view.
13. Click the **Unlock current plan for editing** button.
14. Select the *Object* tab from the Plan editor.

15. Select *Office/Error/UniDim/UD-CH0(0/206/7/0)* from the *Object* menu.

Plan editor

Object Link Text label Image Frame Gauge

Object:

Custom name:

Read-only:

Hide in Touch:

Hide background:

Pin code:

Widget:

Display mode:

Touch icon:

Additional classes:

Font size:

Text styles: ☐ B ☐ I ☐ U

Custom font:

Font color:

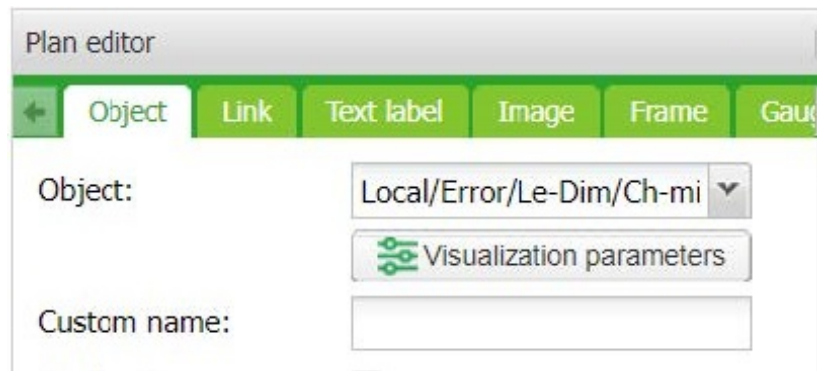
Add to plan Cancel

Element position:

Element size:

Save and reload plan Cancel

16. Click the **Visualization parameters** button.



Step Result: The *Select which parameters to edit* window appears on the screen.

17. Click the **Local (per-element) parameters** button.



18. Select the *Most Severe Error* from the *Control type* menu and click the **Save** button.

NOTE: For each Error object, two types of visualization elements can be created, that is *Most Severe Error* and *Most Recent Error*.

19. Select an icon from the *Default icon* menu in the **Object** tab of the *Plan editor* and click the **Additional icons** button.

The screenshot shows the 'Plan editor' window with the 'Object' tab selected. The configuration options are as follows:

- hide background:** ☒
- Pin code:**
- Widget:** No widget
- Display mode:** Icon and value
- Default icon:** Green.png
- Touch icon:**
- Additional classes:**
- Font size:** 12
- Text styles:** ☐ **B** ☐ *I* ☐ U
- Custom font:**
- Font color:**
- Show value background:** ☐
- Show control:** ☐ **Inline** in Usermode
- Additional icons:**
- Add to plan:**
- Element position:** 10 10
- Element size:**
- Save and reload plan:**

Step Result: The *Additional Icons* window appears on the screen.

20. Select the *Add* icon and set the *Min value* and *Max value*.

21. Select the required icon from the *Icon* menu and repeat for all icons as required.

Additional icons

Min value	0	Max value	1	Icon	Green.png
Min value	2	Max value	2	Icon	Amber.png
Min value	3	Max value	4	Icon	Red.png

+ Add icon

Save Cancel

NOTE: The icons must be selected based on the severity levels.

Severity Value	Severity	Icon
0	All OK	Green.png
1	OK	Green.png
2	Minor Failure	Amber.png
3	General Failure	Red.png
4	Extreme Failure	Red.png

22. Click the **Save** button.
23. Click the **Add to plan** button to add new visual elements to the page.

Add to plan

24. Rearrange the element by dragging it to the floor plan.



25. Add a Text label to the plan.

Plan editor

Object Link **Text label** Image Frame Gauge

Text: MS

Font size: 14

Text styles: ☐ B ☐ I ☐ U

Custom font:

Font color:

Additional classes:

Add to plan Cancel

Element position: 10 10

Element size:

Save and reload plan Cancel

26. Click the **Add to plan** button and rearrange the Text label by dragging it to desired place.



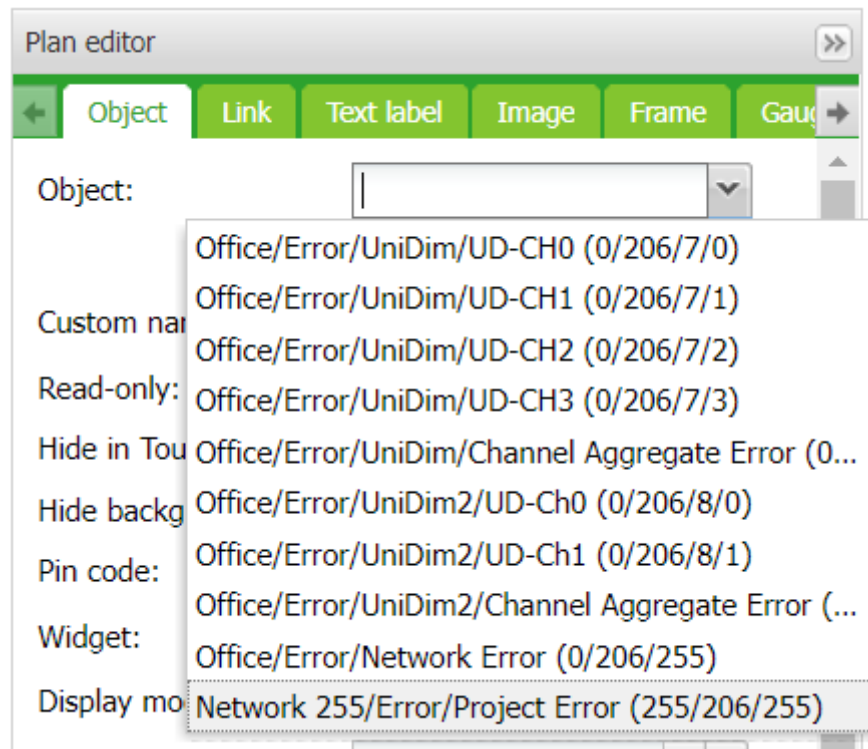
27. Click the **Save and reload plan** button.



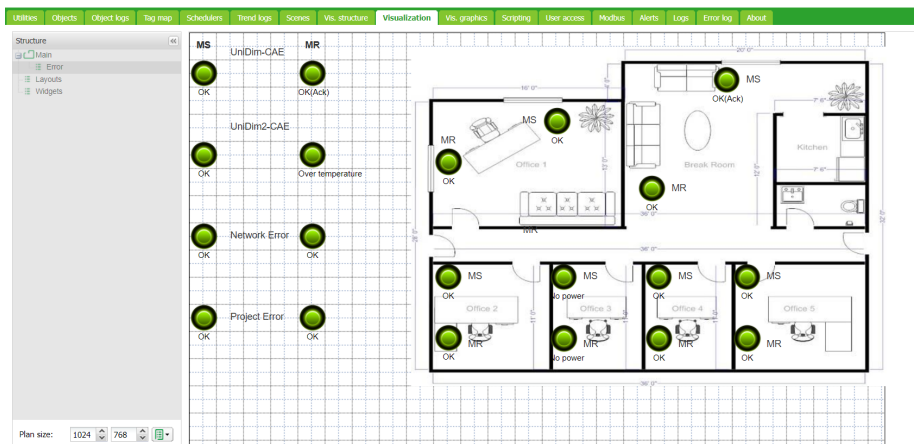
NOTE: Create Visualization element for *Most Recent Error*. Use the **Duplicate** button and then modify the copied elements to greatly speed up your task.

28. Click the **Save and reload plan** button.

NOTE: Repeat the steps for all Error objects including *Channel Aggregate Error*, *Network Error*, and *Project Error* objects.



Thus, each error object shall have two visualization elements each for *Most Severe Error* and *Most Recent Error*.



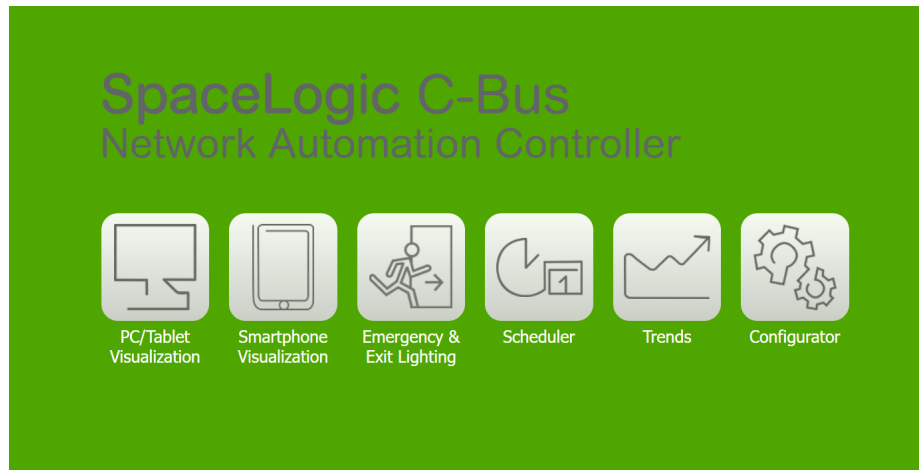
PC/Tablet Visualization

The real time value for Error objects can be monitored on PC/Tablet Visualization.

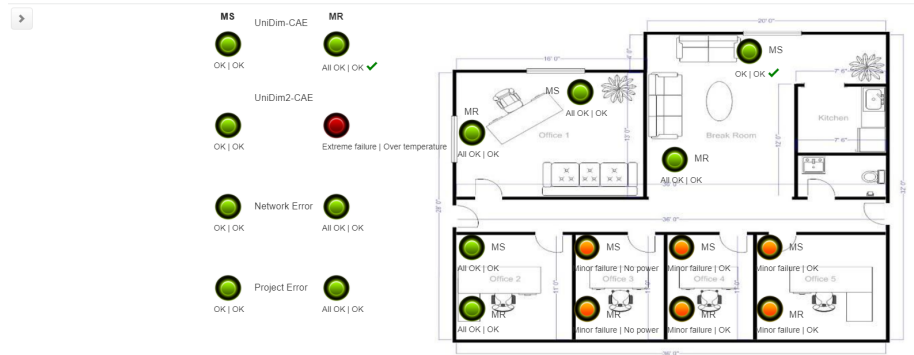
Steps to view PC/Tablet Visualization

This section describes a procedure to view PC/Tablet visualization.

1. Go to the controller home page.



2. Click the *PC/Tablet Visualization* icon.



NOTE:

- To send the acknowledgement for *Most Severe Error*, click the *Most Severe Error* icon and select the **Acknowledge most severe** from the menu.
- To clear error, click the *Most severe error* icon and select the option **Clear** from the menu.



- To send the acknowledgement for *Most Recent Error*, click the *Most Recent error* icon and select the *Acknowledge most recent* from the menu.



Step Result: The PC/Tablet Visualization appears on the screen.

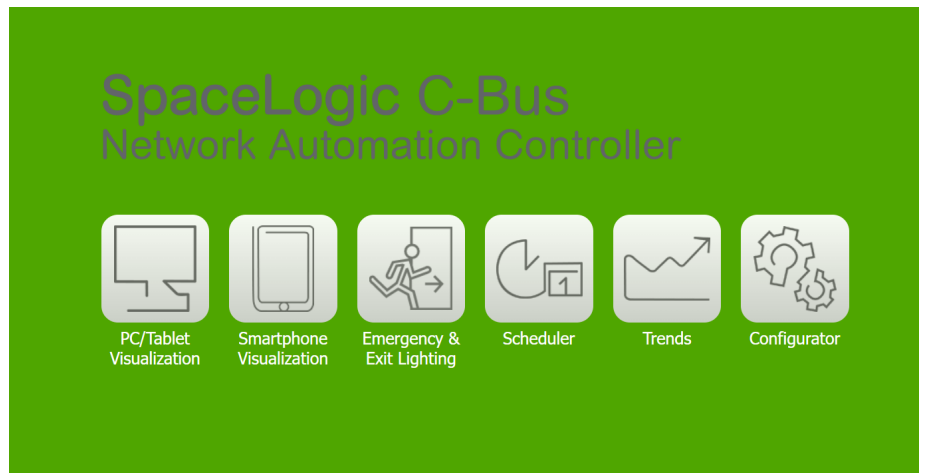
Smartphone visualization

The real time values for Error objects shall be monitored on Smartphone Visualization.

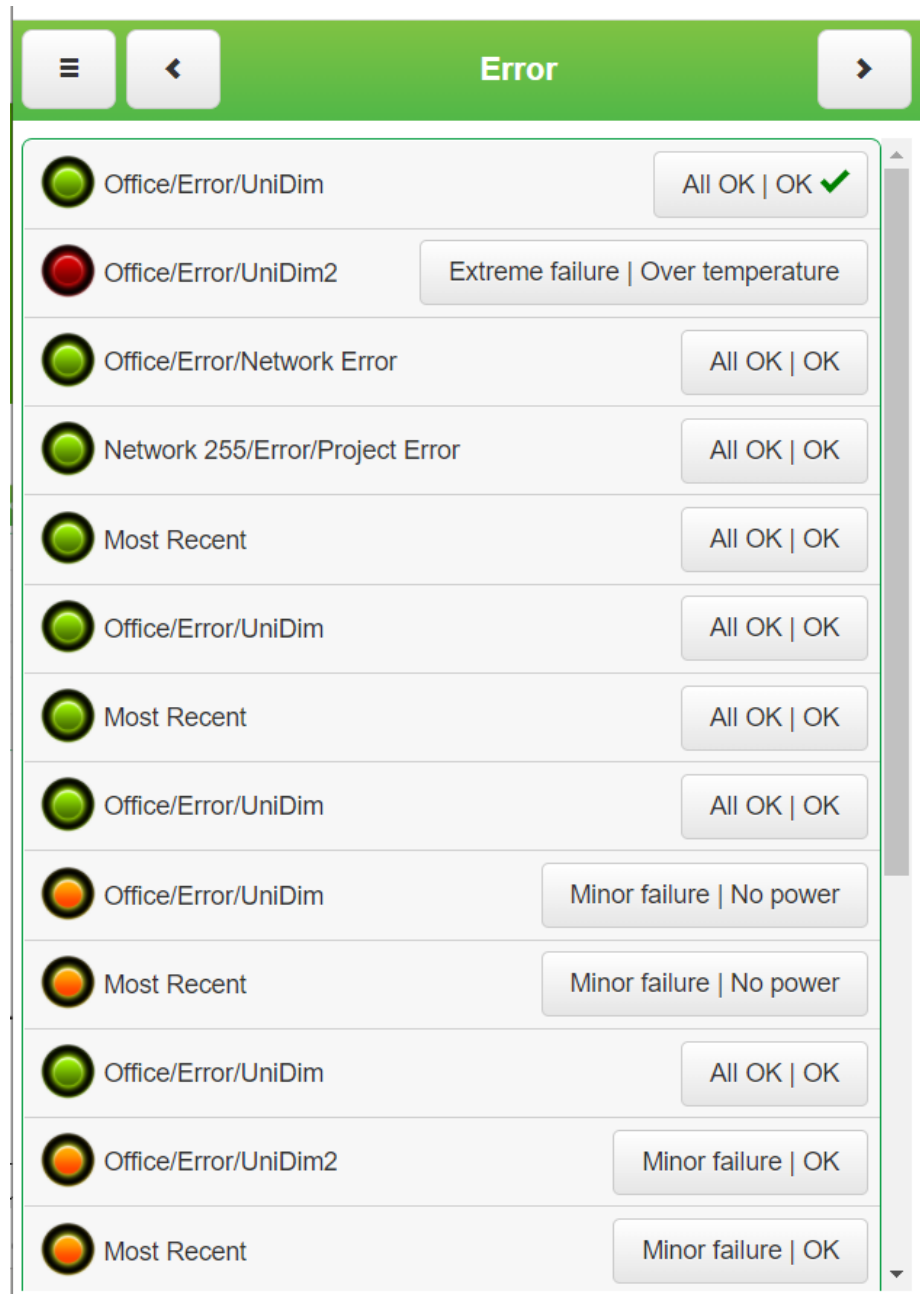
Steps to view Smartphone visualization

This section describes a procedure to view Smartphone visualization.

1. Go to the controller home page.

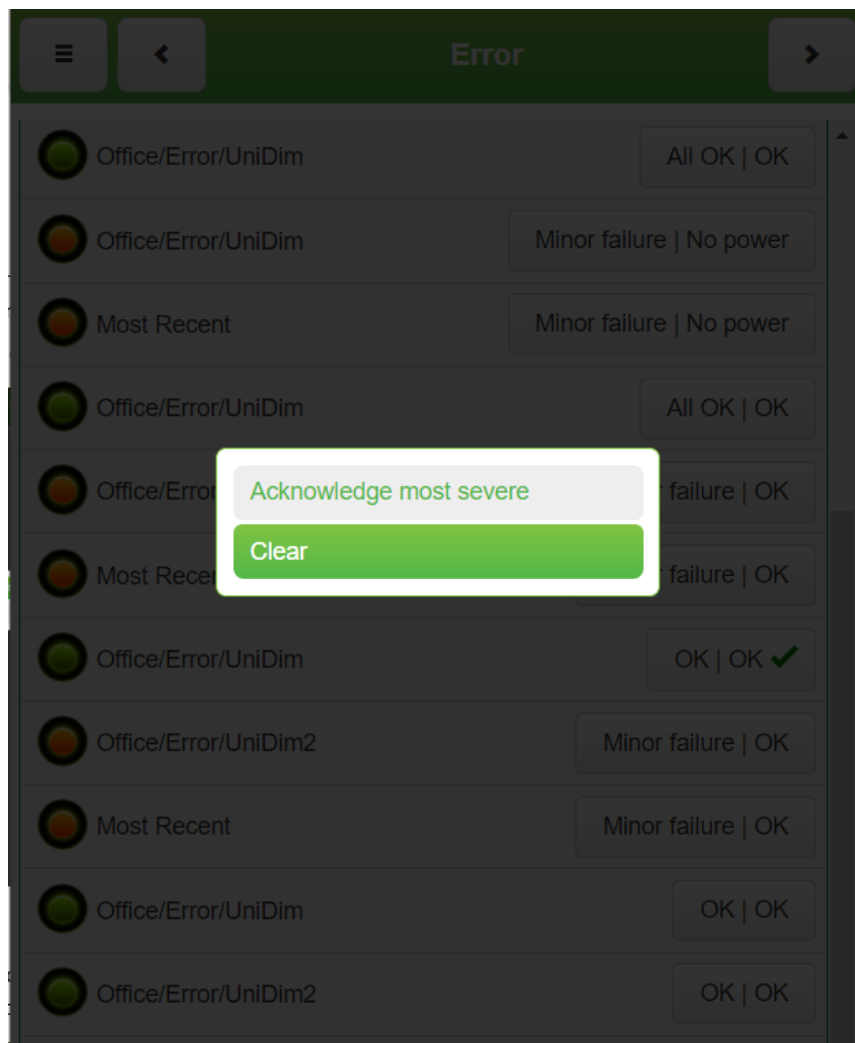


2. Click the *Smartphone Visualization* icon.

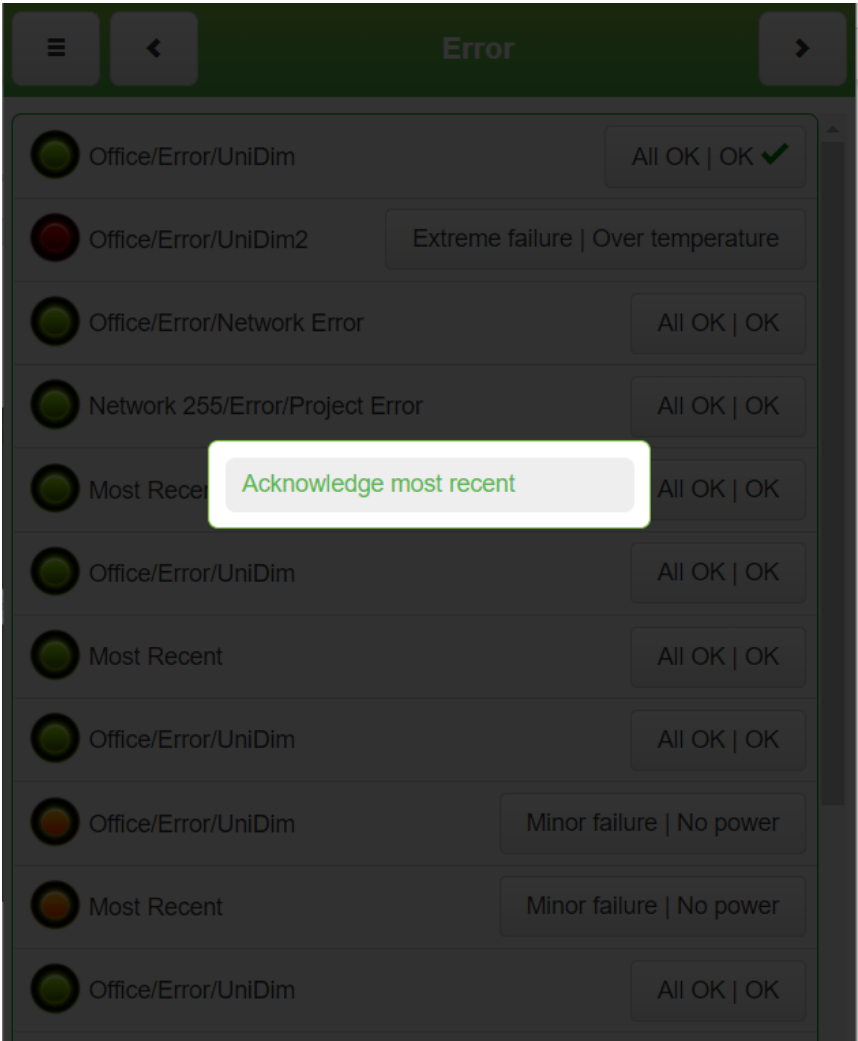


NOTE:

- To send the acknowledgement for Most Severe Error, click the *Most Severe Error* icon and select the **Acknowledge most severe** from the menu.
- To clear error, click the *Most severe error* icon and select the option **Clear** from the menu.



- To send the acknowledgement for *Most Recent Error*, click the *Most Recent error* icon and select the *Acknowledge most recent* from the menu.



Step Result: The Smartphone Visualization appears on the screen.

BACnet support for Error reporting application

BACnet is designed to allow communication with building automation and control systems for applications. The Controller supports the BACnet IP format using the RJ45 Ethernet connector.

The Controller can act only as a BACnet server (not as a client). The Controller serves data which can be read by BACnet client devices (such as Buildings Management Systems) and BACnet client devices can write data to the server. Refer user-manual for more details.

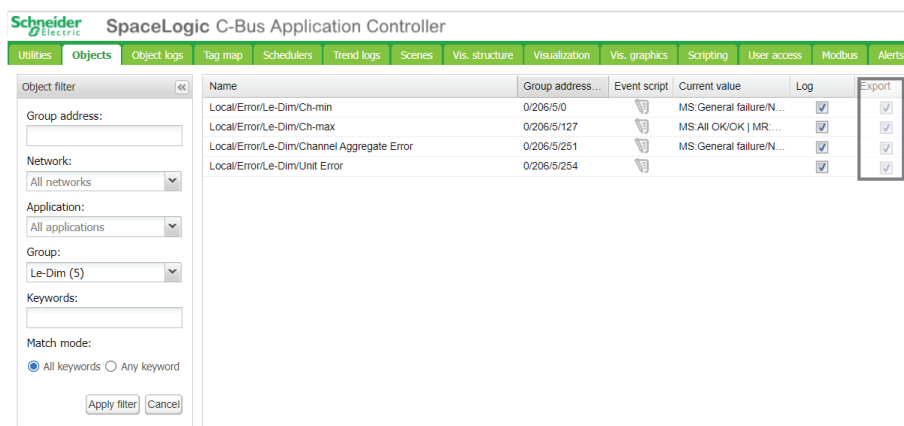
Export Error Objects to BACnet

The Error Objects can be exported to BACnet server from the *Objects* tab of the controller.

Steps to export Error Objects to BACnet

This section describes a procedure to export Error Objects to BACnet.

1. Go to the controller home page.
2. Click the *Configurator* icon.
3. Select the *Objects* tab from the home page.
4. Select the objects from the *Export* column section which are to be made available for BACnet .



Configure BACnet communication (BACnet Settings).

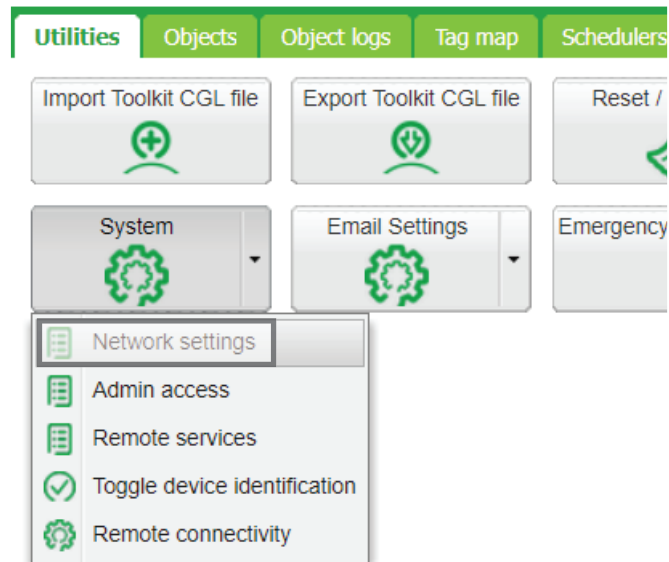
The controller can be configured as a BACnet server from the *BACnet Settings* of the controller.

Steps to configure BACnet communication

This section describes a procedure to configure BACnet communication.

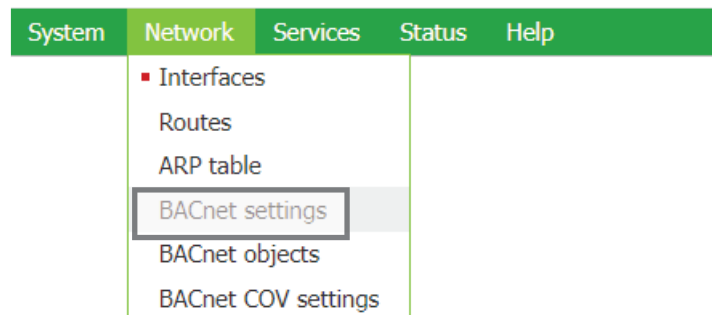
1. Go to the controller home page.
2. Click the *Configurator* icon.
3. Select the *Utilities* tab from the home page.

4. Select the *Network settings* from the *System* menu.



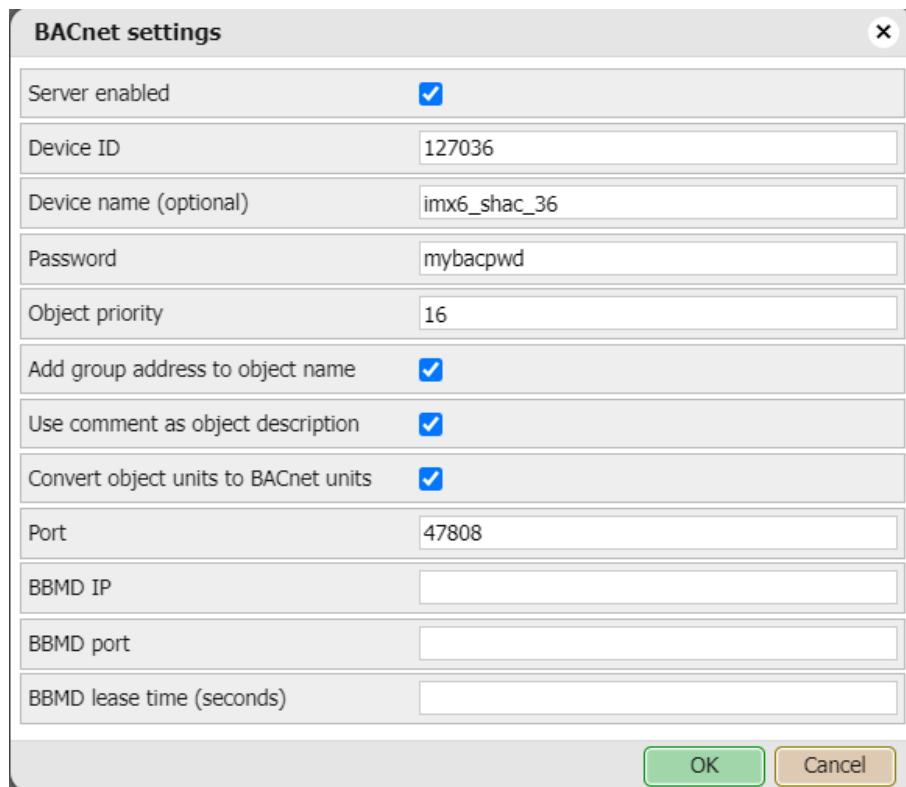
Step Result: The *Network settings* page appears on the screen.

5. Select the *BACnet settings* from the *Network* menu.



Step Result: The *BACnet settings* window appears on the screen.

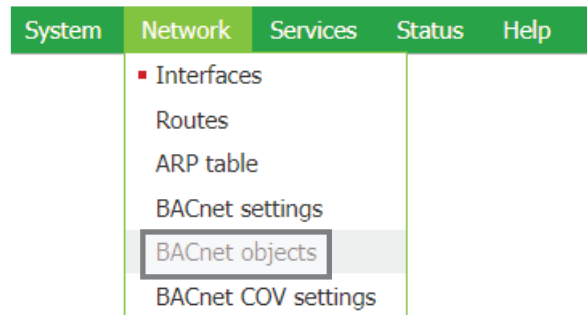
6. Select the *Server enabled*, *Add group address to object name*, *Use comment as object description* and *Convert object units to BACnet units* check boxes.



The image shows a 'BACnet settings' dialog box with a close button (X) in the top right corner. The dialog contains several fields and checkboxes. The 'Server enabled' checkbox is checked. The 'Device ID' field contains '127036'. The 'Device name (optional)' field contains 'imx6_shac_36'. The 'Password' field contains 'mybacpwd'. The 'Object priority' field contains '16'. The 'Add group address to object name', 'Use comment as object description', and 'Convert object units to BACnet units' checkboxes are all checked. The 'Port' field contains '47808'. The 'BBMD IP', 'BBMD port', and 'BBMD lease time (seconds)' fields are empty. At the bottom right, there are 'OK' and 'Cancel' buttons.

BACnet settings	
Server enabled	☒
Device ID	127036
Device name (optional)	imx6_shac_36
Password	mybacpwd
Object priority	16
Add group address to object name	☒
Use comment as object description	☒
Convert object units to BACnet units	☒
Port	47808
BBMD IP	
BBMD port	
BBMD lease time (seconds)	
OK Cancel	

7. Verify the BACnet objects in controller.
 - a. Go to the controller home page.
 - b. Click the *Configurator* icon.
 - c. Select the *Utilities* tab from the home page.
 - d. Select the *Network settings* from the *System* menu.
 - e. Select the *BACnet objects* from the *Network* menu.



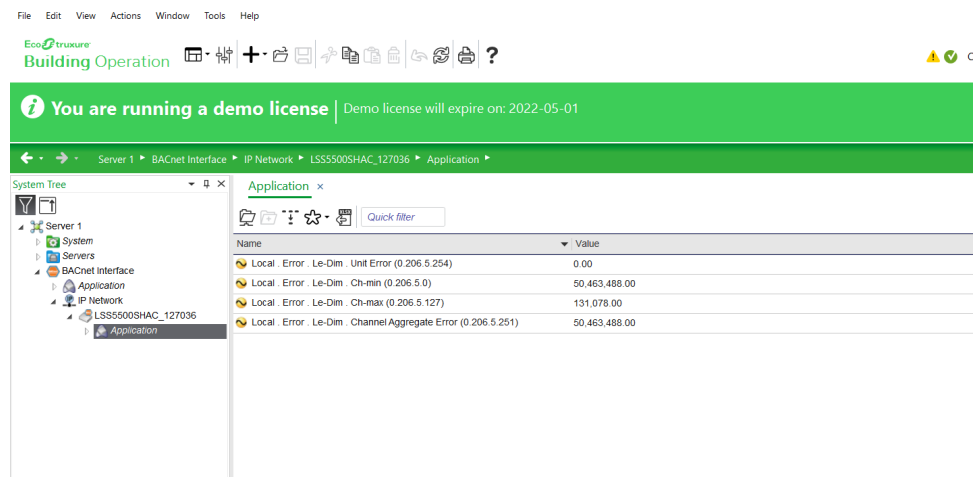
Step Result: The *BACnet objects* window appears on the screen.

 A screenshot of a window titled 'BACnet objects'. It displays metadata for a specific object and a table of its instances.

Type	Instance	Name	Current value
2 (AV)	8	Local/Error/Le-Dim/Ch-min	50463489
2 (AV)	9	Local/Error/Le-Dim/Ch-max	131078
2 (AV)	12	Local/Error/Le-Dim/Channel	50463489
2 (AV)	29	Local/Error/Le-Dim/Unit Error	0

EcoStruxure™ Building Operation software (EBO)

The EcoStruxure Building Operation software (EBO) provides a number of functions to monitor and manage the facilities. This software is launched and all the objects are uploaded to the device added in the BACnet interface. The objects appear in the software after they are uploaded to the BACnet interface.

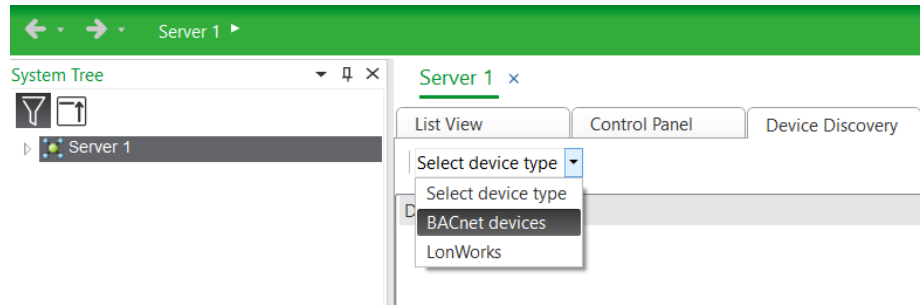


Steps to configure controller in EBO

This section describes a procedure to configure controller in EBO.

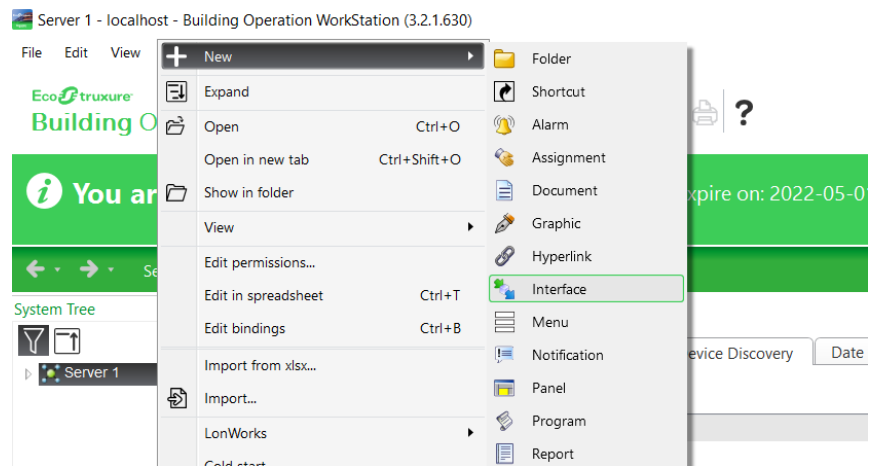
1. Launch the EcoStruxure™ Building Operation software (EBO).

2. Select the server from the *System Tree* and choose a device type from the *Select device type* menu.

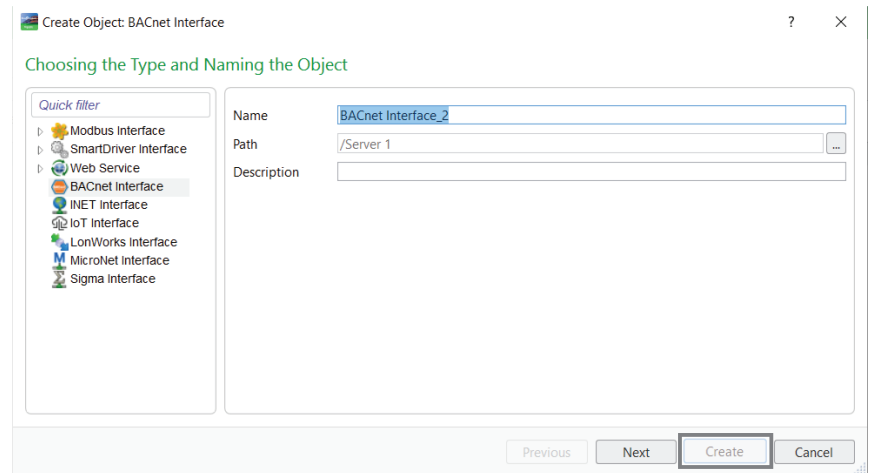


NOTE: Create a BACnet interface if it is not created earlier. The steps to create a BACnet interface are as follows:

- Right-click the server in the *System Tree*.
- Select the *New* menu and choose *Interface* option.



- Enter the name of interface and click the **Create** button.

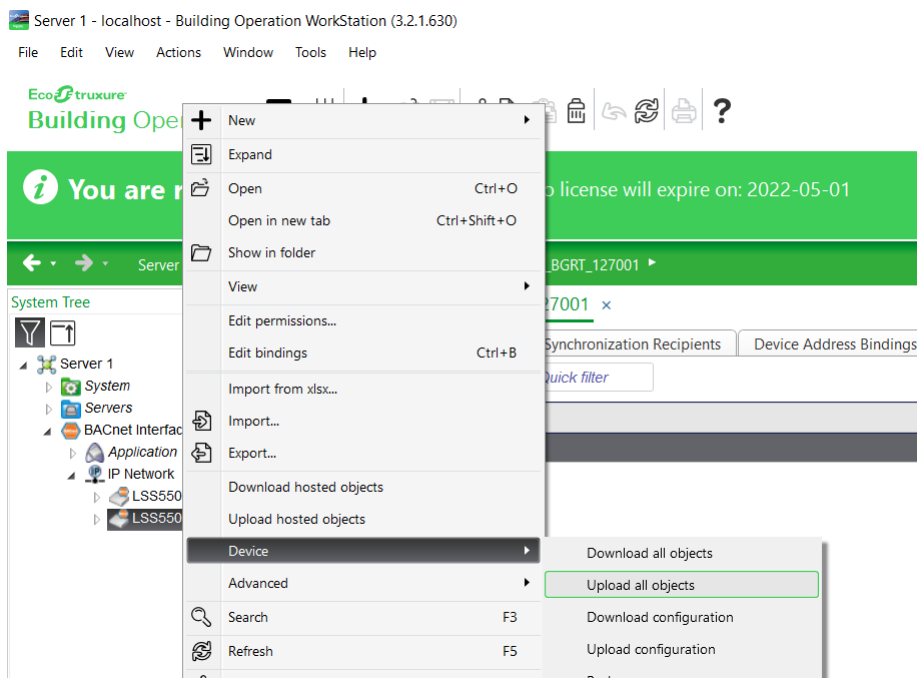


3. Select a device from the *IP Network* section in the *System Tree*.

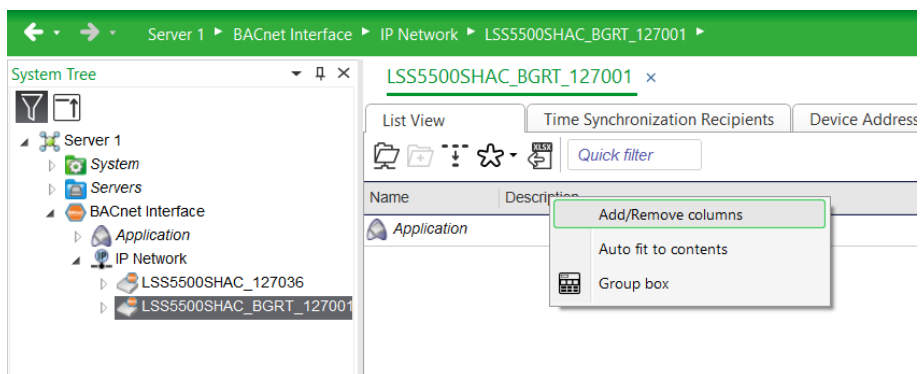
NOTE: If a required device is not displayed in the *IP Network* section, the steps to perform are as follows:

- Choose a device type from the *Select device type* menu in the *Device Discovery* tab.
- Drag and drop a required device from the *Device Discovery* tab to the *IP Network* section in the *System Tree*.

- Right-click the device and select the *Upload all objects* option from the *Device* menu.

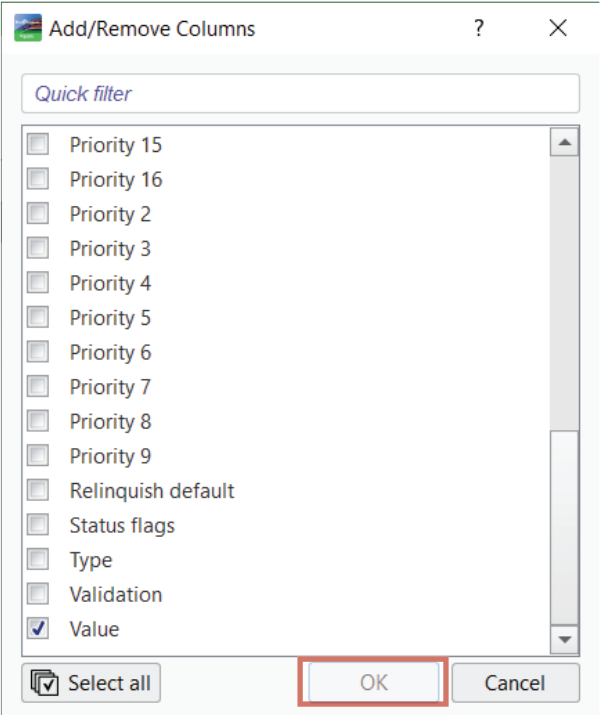


- Right-click the *Description* column in the *List View* tab and select the *Add/Remove columns* option.

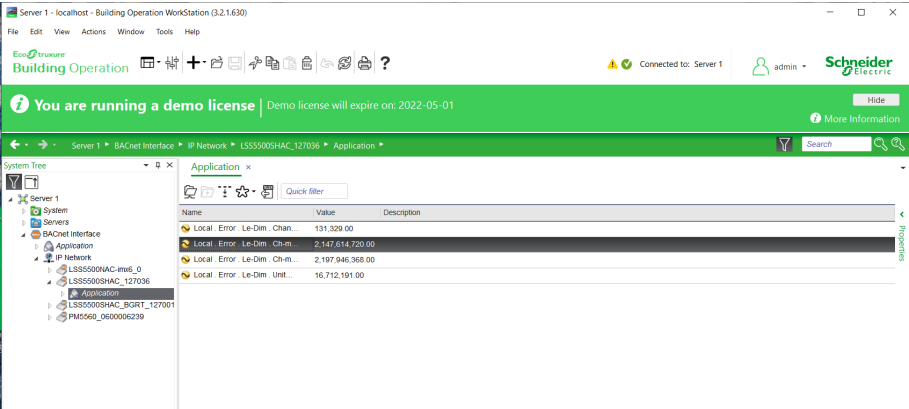


Step Result: The *Add/Remove Columns* window appears on the screen.

6. Select the *Value* check box and click the **OK** button.



Step Result: The Controller in the EBO is configured.



Error Monitoring

In EcoStruxure™ Building Operation software (EBO), each Error object will display 32-bit unsigned number under the column *Value*. This number will store following values for each error object in encoded format.

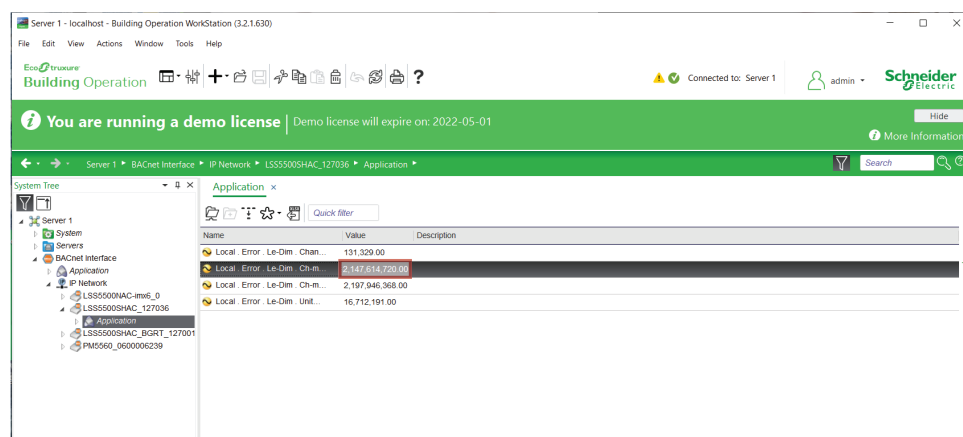
- Most Severe Severity value.
- Most Severe Error value.
- Most Recent Severity value.
- Most Recent Error value.
- Most Severe *Ack_Status*.
- Most Recent *Ack_Status*.

The 32 bit unsigned number shall be decoded as follows:

00000011	00000011	00000011	00000011
SV_MS	SV_MR	EV_MS	EV_MR

NOTE:

- The MSB (highlighted in bold) for byte 1 and for byte 2 represents Ack Status for MS and MR Errors respectively.
- The ACK value 0 denotes not acknowledged.
- The Ack value 1 denotes acknowledged
- SV-Severity Value, EV-Error Value, MS-Most Severe, MR-Most Recent



Acknowledgement and clear messages

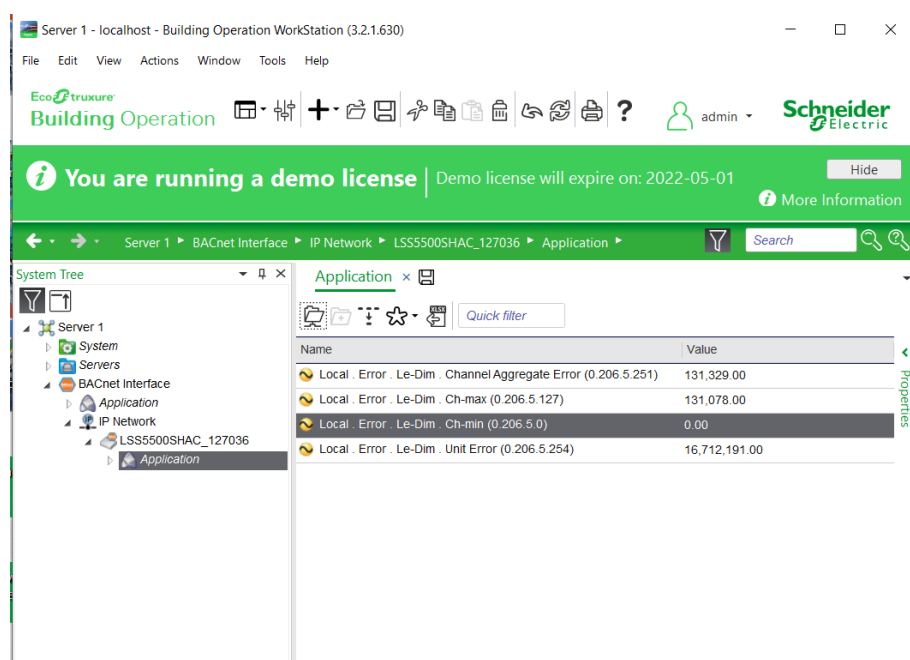
A device that receives error reporting application message acts upon the information in an appropriate manner, it also acknowledges the error and clears the history of severe errors in supporting devices.

Steps to send Acknowledgement and Clear messages from EBO

This section describes a procedure to send Acknowledgement and Clear messages from EBO.

Prerequisites: The EcoStruxure™ Building Operation software (EBO) must already be open and configured, for details see [Steps to configure controller in EBO](#) , page 39.

1. Select a Value from the *Value* column of the *Application* tab.



2. Click the value field and edit the value.

NOTE: The steps for corresponding operations are as follows:

MS ACK

- Select the error object to be acknowledged.
- Select the value field and enter 0.
- Click the save  icon.

MR ACK

- Select the error object to be acknowledged.
- Select the value field and enter 1.
- Click the save  icon.

Clear

- Select the error object to be cleared.
- Select the value field and enter 2.
- Click the save  icon.

All other values (except 0, 1, and 2) sent from the BACNet for Error object shall be ignored by the controller.

Step Result: The acknowledgement and clear messages are sent from EBO.

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