

Introduction

This Application Note describes the use of “tags” in a RAPIX Lighting Control System.

A “tag” is used to identify an item as belonging to a group of items. The use of tags provides significant benefits for efficiency and flexibility, particularly for large projects.

Tags can be applied to many items in the RAPIX System, including:

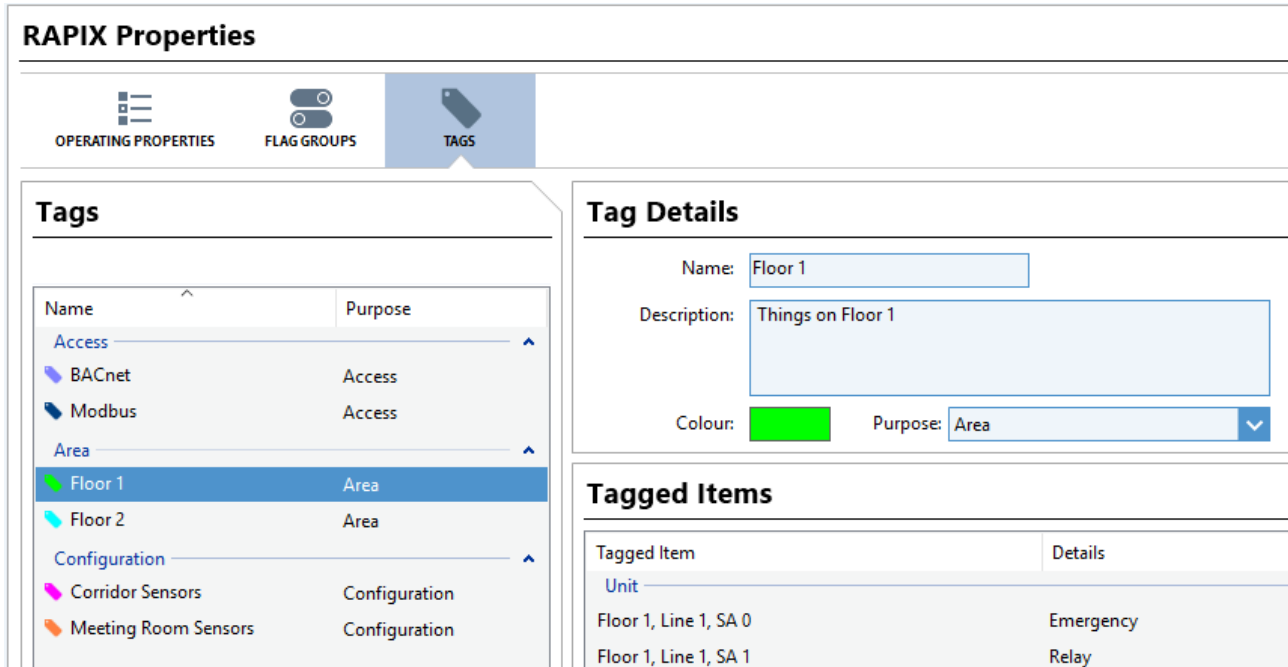
- DALI Units
- Zones
- Scenes
- Flags
- Operating Properties
- Schedules
- Interfaces (e.g. RAPIX API, Modbus, MQTT, BACnet)
- Email Recipients (for RAPIX Facilities)

Example of the use of tags include:

- A tag on a DALI unit can be used to indicate that is of a particular type, configuration or location, and allows all units with the same tag to be updated together.
- A tag on a DALI unit can be used to indicate that is part of a particular building tenancy, and allows RAPIX Facilities to generate reports for each tenant containing just the tenant’s DALI units.
- A tag on a Zone, Scene, Flag, Operating Property or Schedule can be used to indicate that it is allowed to be accessed via interfaces, such as the RAPIX API, Modbus, MQTT or BACnet.

Creating and Viewing Tags

Tags can be created and viewed on the **Tags** tab:



RAPIX Properties

OPERATING PROPERTIES FLAG GROUPS **TAGS**

Tags

Name	Purpose
Access	
BACnet	Access
Modbus	Access
Area	
Floor 1	Area
Floor 2	Area
Configuration	
Corridor Sensors	Configuration
Meeting Room Sensors	Configuration

Tag Details

Name: Floor 1

Description: Things on Floor 1

Colour: ■ Purpose: Area

Tagged Items

Tagged Item	Details
Unit	
Floor 1, Line 1, SA 0	Emergency
Floor 1, Line 1, SA 1	Relay

The Tags tab

To add a tag, click on the **Add** button and enter the tag details. A tag can have a “purpose” defined which is useful to indicate what it is used for:

- General: no specific purpose.
- Configuration: the tag is used to indicate a particular unit configuration.
- Area: the tag is used to indicate a particular area of a building.
- Access: the tag is used to indicate that the item is related to access control (i.e. whether it can be used via the interfaces, such as the RAPIX API, BACnet, Modbus or MQTT).

Tags can also be created and applied at the same time, as discussed below.

Details of the tags can also be viewed in the Project Report.

Tag Purpose	Tag Name	Tag Description
Configuration	Corridor Sensors	Movement sensors that are used in corridors
Configuration	Meeting Room Sensors	Movement sensors that are used in meeting rooms
Area	Floor 1	Things on Floor 1
Area	Floor 2	Things on Floor 2
Access	BACnet	Things that can be controlled via BACnet
Access	Modbus	Things that can be controlled via Modbus

Example from a Project Report

Applying Tags

DALI Units

The name of the tag(s) applied to a DALI unit can be seen by hovering the mouse over the tag.

Line 1

ADDRESSING GROUPS SCENES GO MOBILE


DALI Units Filter Units: All Unconfirmed

		Database		DALI Line			
Address	Name	Device Type	Device Type	Requested	New	Confirmed	State
<i>DALI Address</i>							
0	Device 0	Emergency	Emergency			<input checked="" type="checkbox"/>	
1	Device 1	Relay	Relay			<input checked="" type="checkbox"/>	
2	Floor1 = 2	Relay	Relay			<input checked="" type="checkbox"/>	





Confirm All ▾




Viewing the tag for a DALI unit

To add or change a tag applied to a DALI unit:

1. Right-click on the DALI unit
2. Select the **Tags** menu item
3. Select the tag(s) required
4. Click on the  icon to add a new tag

Select or Add Tags ✕

-  Common Areas
-  Floor1
-  Floor2
-  Floor3

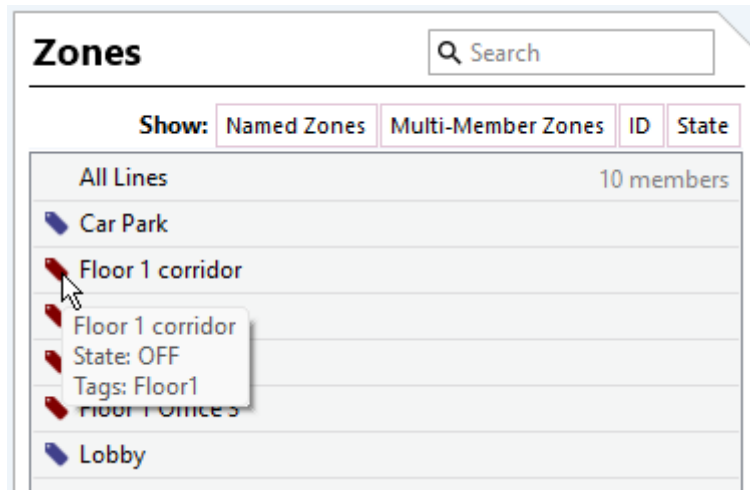



Clear Selection

OK
Cancel

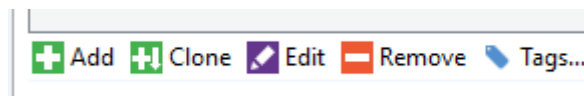
The Select or Add Tags form

Zones

Zone tags can be viewed using the pop-up hint, or by clicking the **Tags** button, or by right-clicking on the zone and selecting the **Tags** menu item.



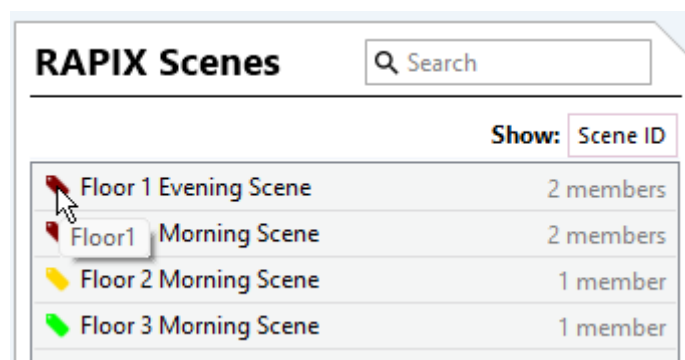
Viewing a Zone tag



The Tags button

Scenes

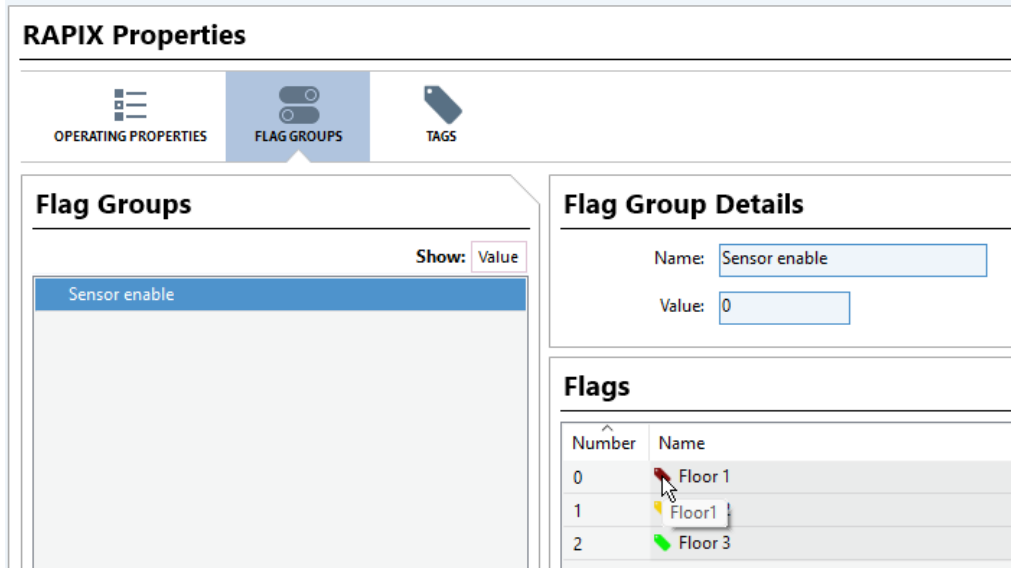
Scene tags can be viewed using the pop-up hint, or by clicking the **Tags** button, or by right-clicking on the scene and selecting the **Tags** menu item.



Viewing a Scene tag

Flags

Flag Group and Flag item tags can be viewed using the pop-up hint, or by clicking the **Tags** button, or by right-clicking on the Flag Group or Flag item and selecting the **Tags** menu item.



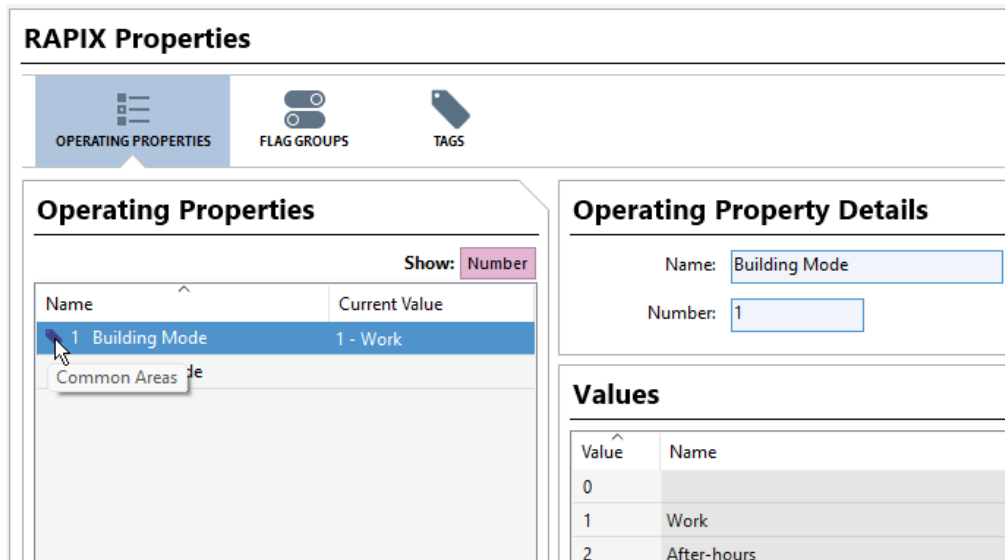
The screenshot shows the RAPIX Properties interface with the 'FLAG GROUPS' tab selected. The 'Flag Groups' panel lists 'Sensor enable'. The 'Flag Group Details' panel shows 'Name: Sensor enable' and 'Value: 0'. The 'Flags' panel shows a table with the following data:

Number	Name
0	Floor 1
1	Floor1
2	Floor 3

Viewing a Flag tag

Operating Properties

Operating Property tags can be viewed using the pop-up hint, or by clicking the **Tags** button, or by right-clicking on the Operating Property and selecting the **Tags** menu item.



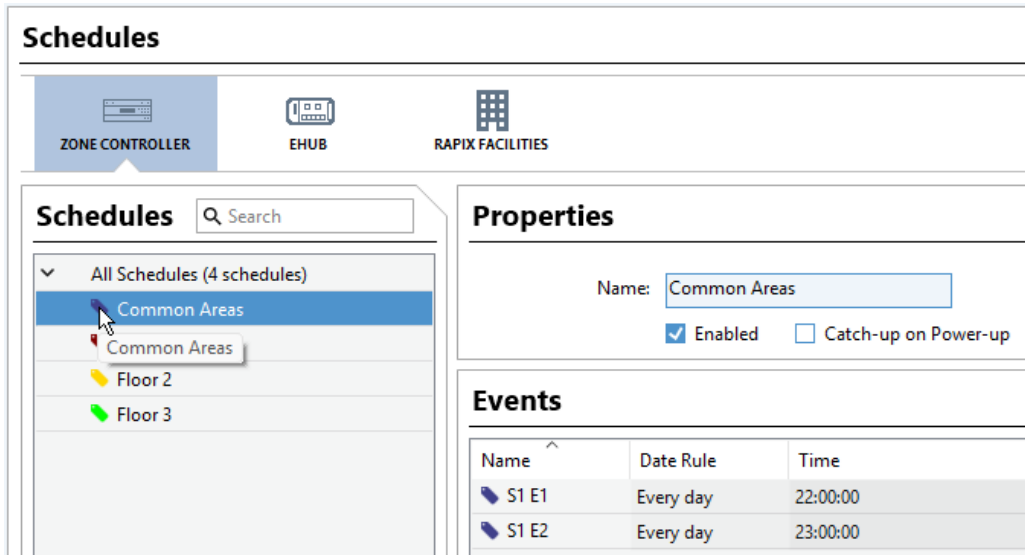
The screenshot shows the RAPIX Properties interface with the 'OPERATING PROPERTIES' tab selected. The 'Operating Properties' panel lists '1 Building Mode' with a 'Current Value' of '1 - Work'. The 'Operating Property Details' panel shows 'Name: Building Mode' and 'Number: 1'. The 'Values' panel shows a table with the following data:

Value	Name
0	
1	Work
2	After-hours

Viewing an Operating Property tag

Schedules

Schedule and Schedule Event tags can be viewed using the pop-up hint, or by clicking the **Tags** button.



The screenshot displays the 'Schedules' management interface. At the top, there are three main sections: 'ZONE CONTROLLER', 'EHUB', and 'RAPIX FACILITIES'. The 'Schedules' section is active, showing a list of schedules under 'All Schedules (4 schedules)'. The 'Common Areas' schedule is selected, and a pop-up hint is visible over it. The 'Properties' section shows the name 'Common Areas', which is checked as 'Enabled' and 'Catch-up on Power-up' is unchecked. The 'Events' section contains a table with two entries:

Name	Date Rule	Time
S1 E1	Every day	22:00:00
S1 E2	Every day	23:00:00

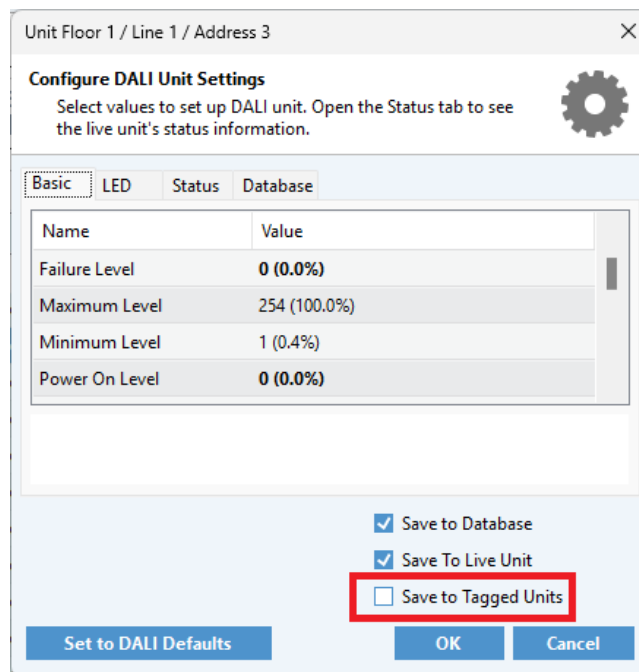
Viewing a Schedule tag

Using Tags for Editing Unit Properties

Tags can be used to simplify the programming of units that have the same configuration. *See the Master Configuration App Note for a more efficient way of doing this.*

Using Tags for Editing Output Unit Properties

When the properties of an output unit are edited, there is an option at the bottom of the form to apply the settings to tagged units.



Unit Floor 1 / Line 1 / Address 3

Configure DALI Unit Settings
Select values to set up DALI unit. Open the Status tab to see the live unit's status information.

Basic | LED | Status | Database

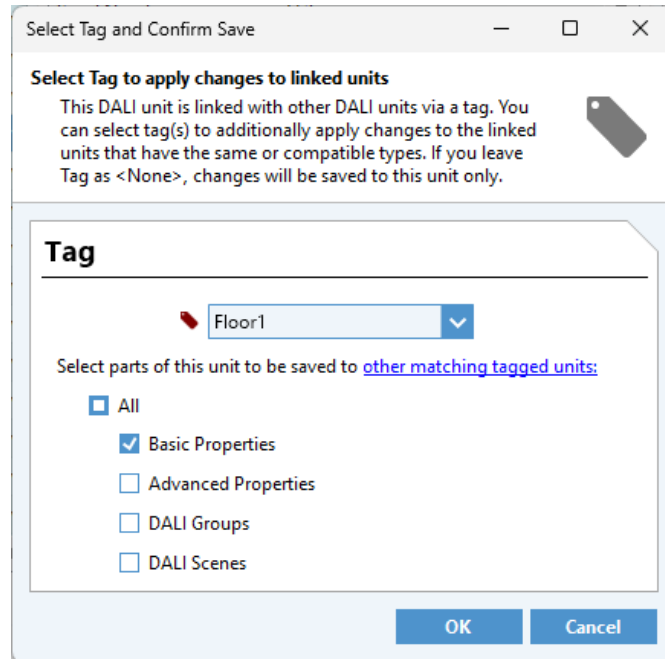
Name	Value
Failure Level	0 (0.0%)
Maximum Level	254 (100.0%)
Minimum Level	1 (0.4%)
Power On Level	0 (0.0%)

Save to Database
 Save To Live Unit
 Save to Tagged Units

Set to DALI Defaults | OK | Cancel

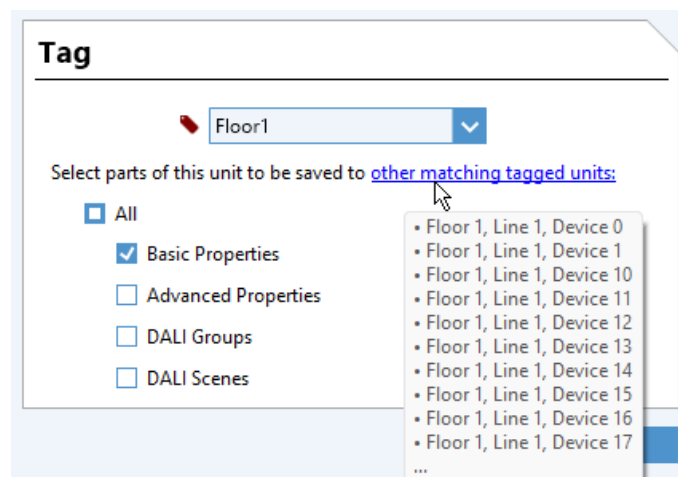
The Save to Tagged Units check box

If the **Save to Tagged Units** option is selected when the **OK** button is clicked, the **Select Tag and Confirm** form will be shown.



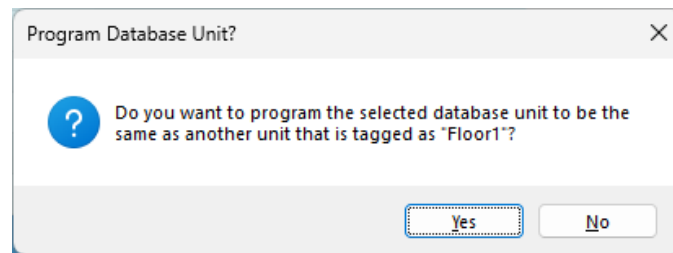
The Select Tag and Confirm Form

The selected output unit properties will be saved to the tagged output units. To find out which units will be affected, hover the mouse over, or click on the “other matching tagged units” link.



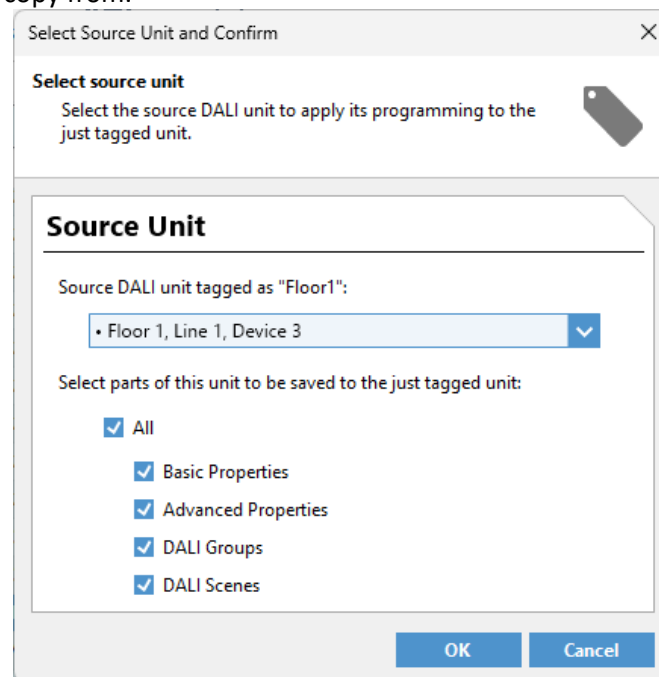
The Select Tag and Confirm Form showing the list of affected units

If a tag is added to an output unit and there are other compatible output units with the same tag, the following message is shown:



Confirmation of copying output unit configuration

Clicking **Yes**, will show the **Select Source and Confirm** form, which allows selecting which properties to copy and which output unit to copy from.

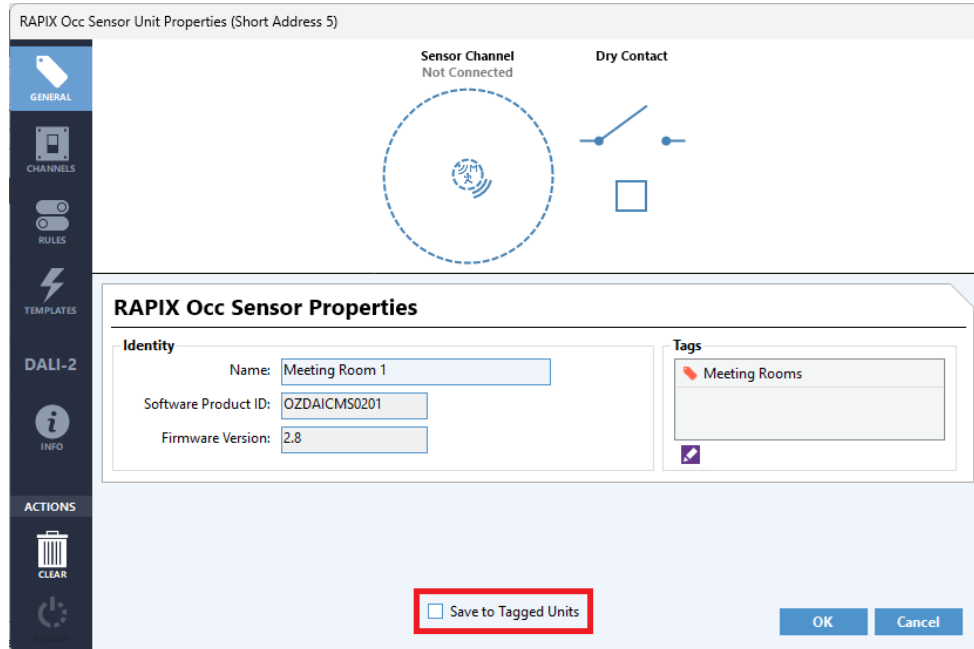


The Select Source and Confirm form

Click on **OK** to confirm the changes.

Using Tags for Editing Input Unit Properties

When the properties of an input unit are edited, there is an option at the bottom of the form to apply the settings to tagged units.



RAPIX Occ Sensor Unit Properties (Short Address 5)

Sensor Channel: Not Connected

Dry Contact

RAPIX Occ Sensor Properties

Identity

Name: Meeting Room 1

Software Product ID: OZDAICMS0201

Firmware Version: 2.8

Tags

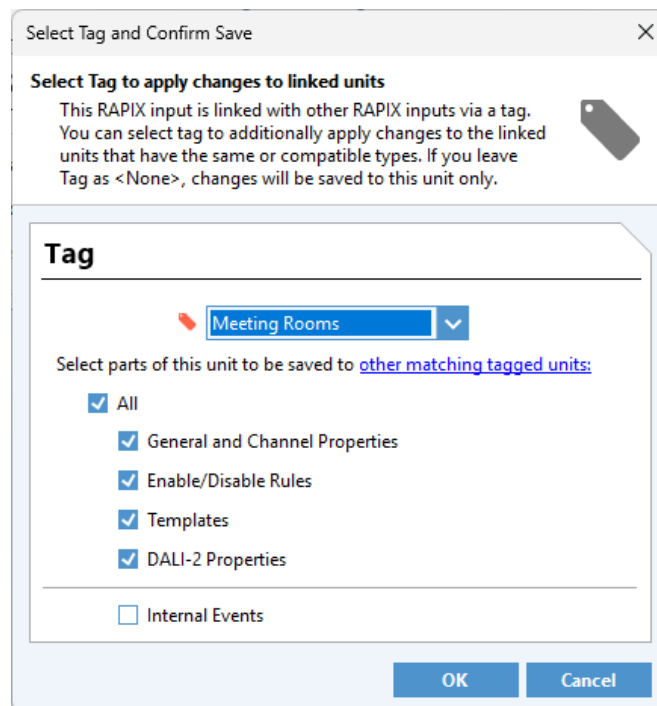
Meeting Rooms

Save to Tagged Units

OK Cancel

The Save to Tagged Units check box

If the **Save to Tagged Units** option is selected, the **Select Tag and Confirm** form is shown.



Select Tag and Confirm Save

Select Tag to apply changes to linked units

This RAPIX input is linked with other RAPIX inputs via a tag. You can select tag to additionally apply changes to the linked units that have the same or compatible types. If you leave Tag as <None>, changes will be saved to this unit only.

Tag

Meeting Rooms

Select parts of this unit to be saved to [other matching tagged units](#):

All

- General and Channel Properties
- Enable/Disable Rules
- Templates
- DALI-2 Properties


Internal Events


OK Cancel


The Select Tag and Confirm Form


In the example above, the changes are to be made to all input units (of compatible type) with the “Meeting Rooms tag”. Other input units (for example, those with the “Corridor” tag) will not be changed. In the DALI Line shown below, only addresses 5 to 8 will have the changes applied because they have the “Meeting Rooms” tag.

Line 1


















ADDRESSING


GROUPS


SCENES

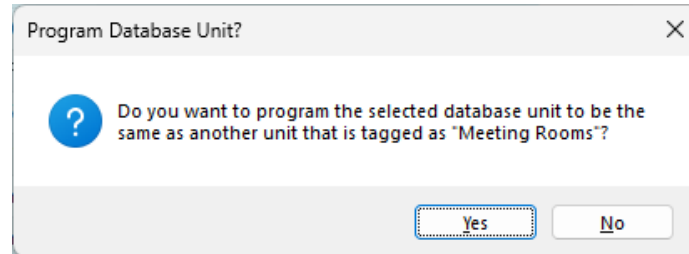

GO MOBILE

DALI Units

Database		
Address	Name	Device Type
4	 Office 1	 RPIX Occ+LL Sensor
5	 Meeting Room 1	 RPIX Occ Sensor
6	 Meeting Rooms 2	 RPIX Occ Sensor
7	 Meeting Room 3	 RPIX Occ Sensor
8	 Meeting Room 4	 RPIX Occ Sensor
9	 Corridor 1	 RPIX Occ Sensor
10	 Corridor 2	 RPIX Occ Sensor
11	 Corridor 3	 RPIX Occ Sensor

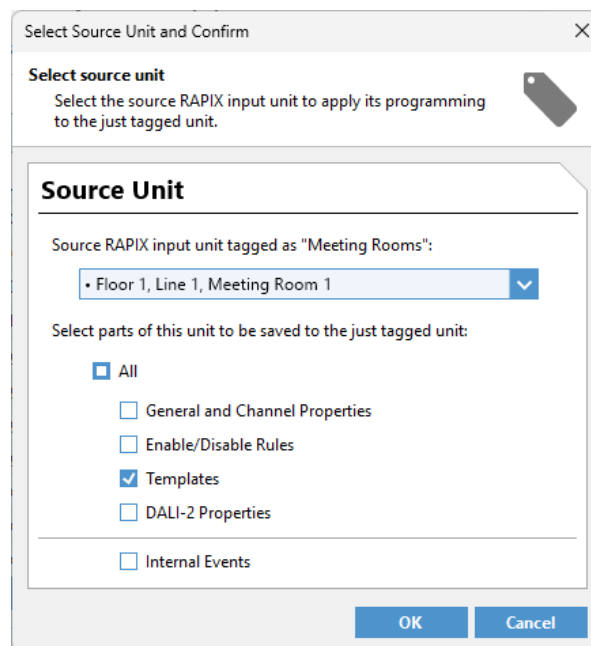
Example DALI Line with sensors with different tags

If a tag is added to an input unit and there are other compatible input units with the same tag, the following message is shown:



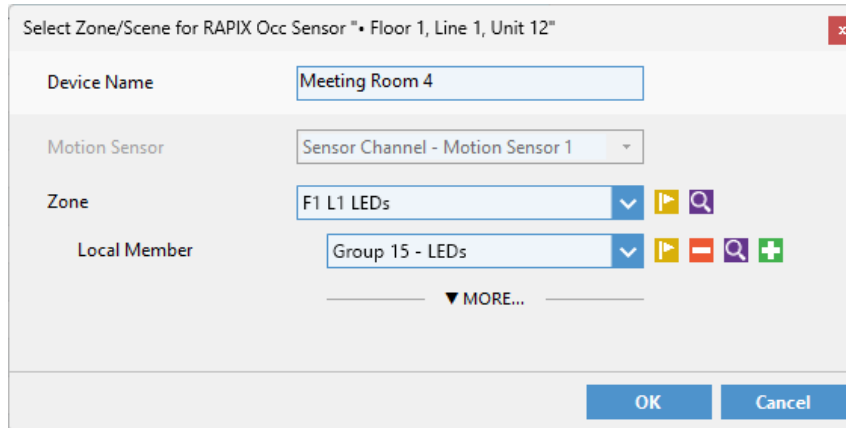
Confirmation of copying input unit configuration

If **Yes** is selected, the **Select Source and Confirm** form will be shown which allows selecting which properties to copy and which input unit to copy from.



The Select Source and Confirm form

If clicking on **OK**, select the Zone for this input unit:



Select Zone/Scene for RAPIX Occ Sensor - Floor 1, Line 1, Unit 12

Device Name: Meeting Room 4

Motion Sensor: Sensor Channel - Motion Sensor 1

Zone: F1 L1 LEDs

Local Member: Group 15 - LEDs

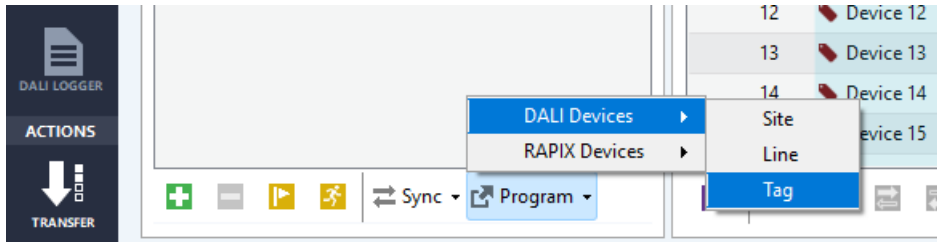
▼ MORE...

OK Cancel

Selection of the Zone to be controlled by the new input unit

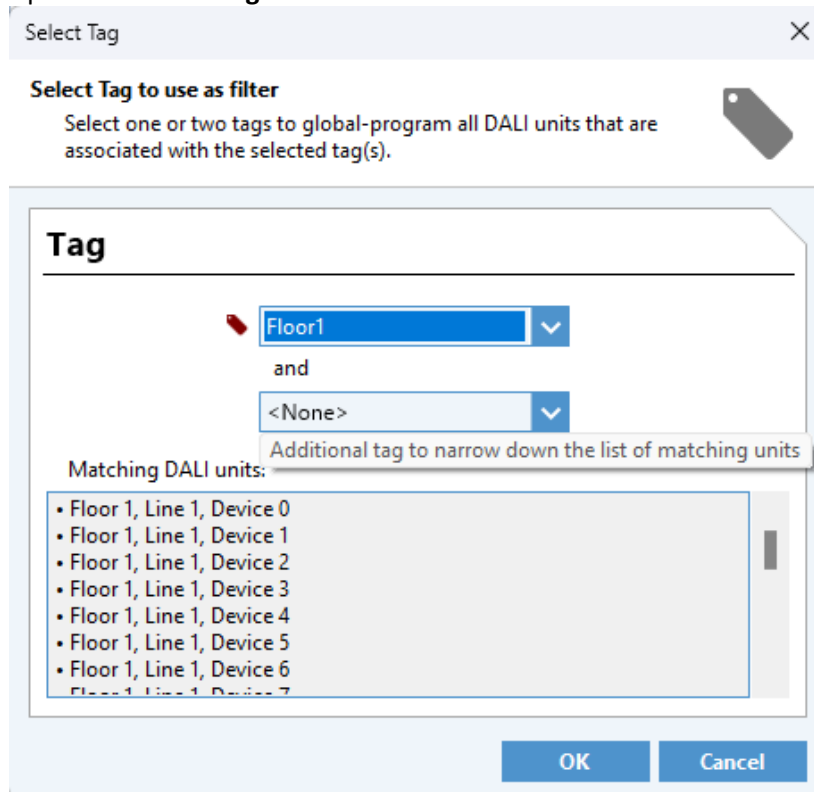
Using Tags for Global Programming

The RAPIX Integrator global programming feature allows changes to be made to multiple units. The **Program** menu has a **Tag** menu item under the **DALI Devices** and **RAPIX Devices** submenus:



Selection of the Global Programming by Tag

The **Tag** menu item opens the **Select Tag** form:


 A screenshot of the 'Select Tag' dialog box. The title bar says 'Select Tag'. Below the title bar, it says 'Select Tag to use as filter' and 'Select one or two tags to global-program all DALI units that are associated with the selected tag(s)'. There is a tag icon. The main area is titled 'Tag' and contains two dropdown menus: the first is set to 'Floor1' and the second is set to '<None>'. Below these is a text box labeled 'Additional tag to narrow down the list of matching units'. Underneath is a list titled 'Matching DALI units:' containing items like 'Floor 1, Line 1, Device 0' through 'Device 7'. At the bottom are 'OK' and 'Cancel' buttons.

Select Tag form

After selecting a tag and clicking **OK**, the standard **Configure DALI Units** form will appear, allowing selection of new values for Basic and Advanced DALI settings. Upon clicking **OK** on the **Configure DALI Units** form, the new values will be saved to all units tagged with the selected tag.

Optionally, a second tag can be selected to further narrow down the list to units that are tagged with both tags. For example, selecting the "Floor1" and "Meeting Rooms" tags will reduce the list of units to only those located in the meeting rooms on the first floor.

Using Tags for Access Control

Each of the RAPIX Interfaces can be used to control and monitor the RAPIX system:

- RAPIX API
- Modbus
- BACnet
- MQTT

Each interface can be configured to access selected entities:

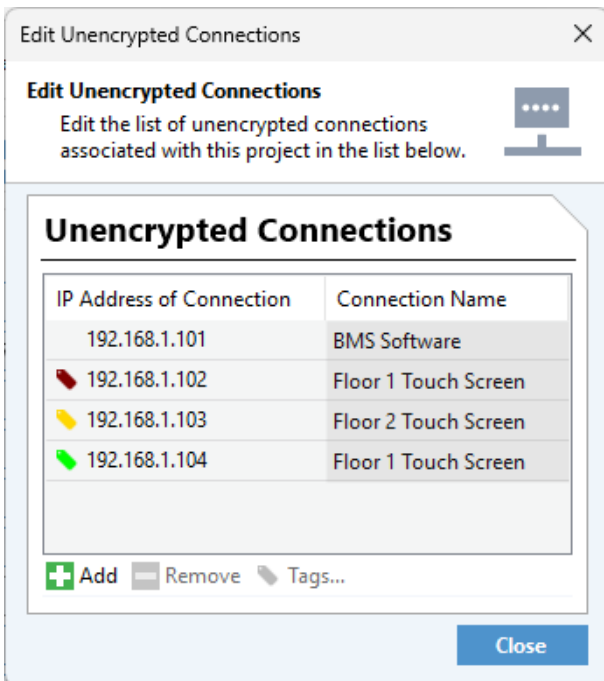
- Zones
- Scenes
- Flag Groups (a flag for a Flag Group automatically applies to its Flags)
- Flags
- Operating Properties
- Schedules (a flag for a schedule automatically applies to its events)
- Schedule Events

RAPIX API

The tags for use with the RAPIX API are defined:

- Per connection in the unencrypted connections section.
- Per user in the users section.

When first connected, the tags for the unencrypted connection are used. Once a user has logged-in, the user's tags will be used.



Edit Unencrypted Connections

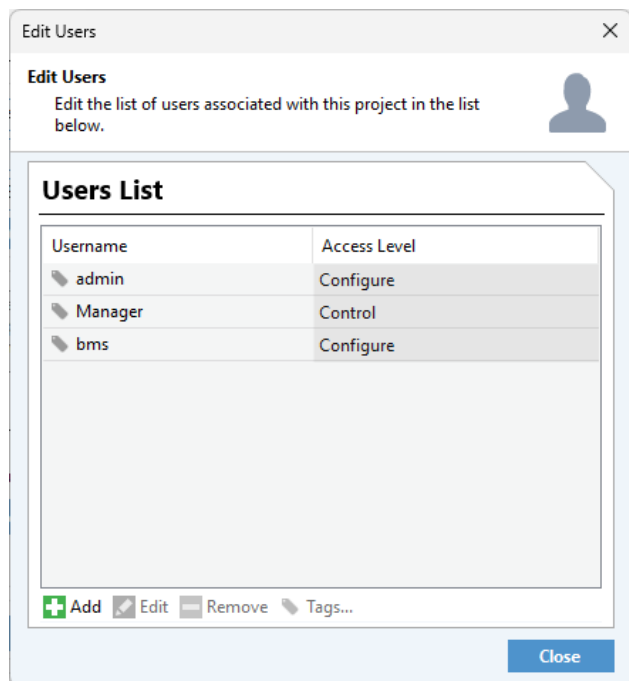
Edit the list of unencrypted connections associated with this project in the list below.

IP Address of Connection	Connection Name
192.168.1.101	BMS Software
192.168.1.102	Floor 1 Touch Screen
192.168.1.103	Floor 2 Touch Screen
192.168.1.104	Floor 1 Touch Screen

+ Add - Remove Tags...

Close

Unencrypted Connection tags



Edit Users

Edit the list of users associated with this project in the list below.

Username	Access Level
admin	Configure
Manager	Control
bms	Configure

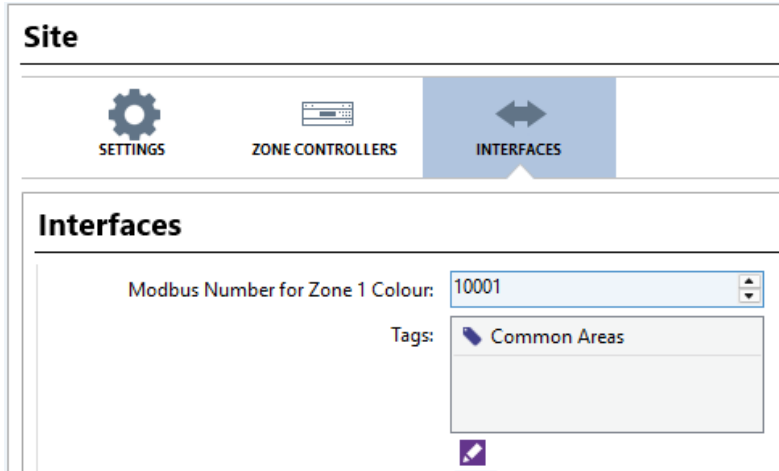
+ Add - Edit - Remove Tags...

Close

User Tags

Modbus

Tags for Modbus can be selected at the bottom of the Modbus section.



Site

SETTINGS ZONE CONTROLLERS **INTERFACES**

Interfaces

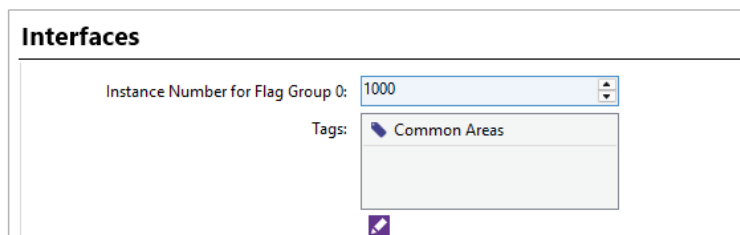
Modbus Number for Zone 1 Colour: 10001

Tags: Common Areas

Modbus Tags

BACnet

Tags for BACnet can be selected at the bottom of the BACnet section.



Interfaces

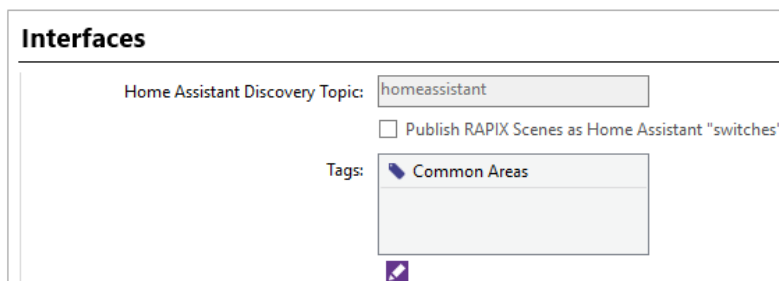
Instance Number for Flag Group 0: 1000

Tags: Common Areas

BACnet Tags

MQTT

Tags for MQTT can be selected at the bottom of the MQTT section.



Interfaces

Home Assistant Discovery Topic: homeassistant

Publish RAPIX Scenes as Home Assistant "switches"

Tags: Common Areas

MQTT Tags

Allowing Full Access

By default, all interfaces have access to everything. To allow an interface to have full access, do not add any tags to the interface.

Allowing selected access

To allow an interface to only access items with a particular tag, add that tag to the interface.

Preventing any access

To prevent an interface from having access to anything, it will be necessary to create a tag that is applied to the interface, but not used anywhere else.

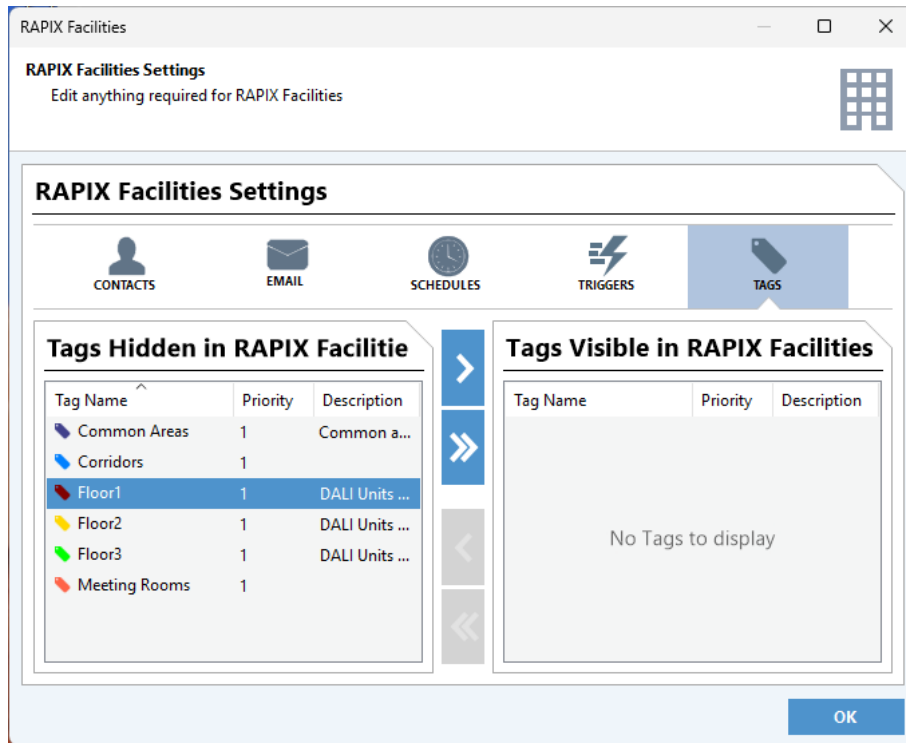
This can be used to prevent access through the RAPIX API until a user has logged-in (at that point, the user's tags will apply).

Using Tags with RAPIX Facilities

Tags for use with RAPIX Facilities are created using RAPIX Integrator.

Selecting Tags

Tags for use with RAPIX Facilities are selected using the RAPIX Facilities form.



Selecting tags for use with RAPIX Facilities

Test Reports

If a building has multiple tenants, it may be necessary to have separate test reports to each tenant. This can be achieved by applying a tag to the email address of each tenant. Each test report will only contain the results of the units with the same tags.

List of Email Recipients

	Recipient Name	Recipient Email Address	Status
OK			
✉	Tenant 1	manager@tenant1.com	● OK
✉	Tenant 2	manager@tenant2.com	● OK
✉	Tenant 3	manager@tenant3.com	● OK

Multiple recipients send email options:

Send one email to all recipients
 Send an individual email to each recipient

Using tags to select which tenant receives which test result data

Viewing Tags in RAPIX Facilities

The tags for each unit are displayed in the lists of DALI Units, Operating Properties and Flags.

DALI Units						
Interface	DALI Line	Unit Name	Location	Address	Type	
Floor 1						
⚠ Floor 1	Line 1	Device 0	Floor 1 corri...	0	EM	
✓ Floor 1	Line 1	Device 1	All Lines	1	Relay	
✓ Floor 1	Line 1	Tags: Floor1	All Lines	2	Relay	
✓ Floor 1	Line 1	Device 3	All Lines	3	LED	

DALI Units List

	Operating Properties		Flags		
DASHBOARD UNIT STATUS FLOOR PLANS SCHEDULES PROPERTIES	Operating Property Name	Current Value	Flag Group	Flag Name	Flag State
	Building Mode	Unknown	Sensor enable	Floor 1	Unknown
	Carpark Mode	Unknown	Sensor enable	Tags: Floor1	Unknown
			Sensor enable	Floor 3	Unknown

Operating Properties and Flags Lists

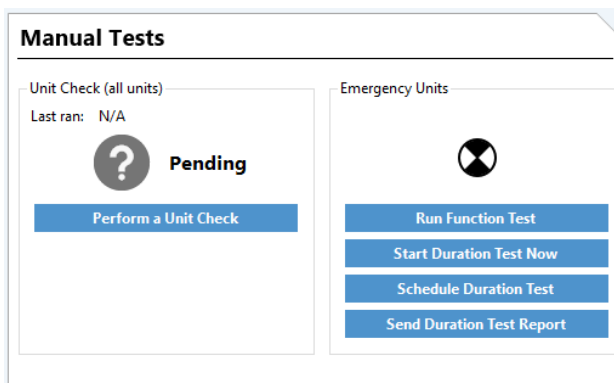
Filtering by Tag in RAPIX Facilities

To view just part of the data for a project, a tag can be selected on the toolbar:

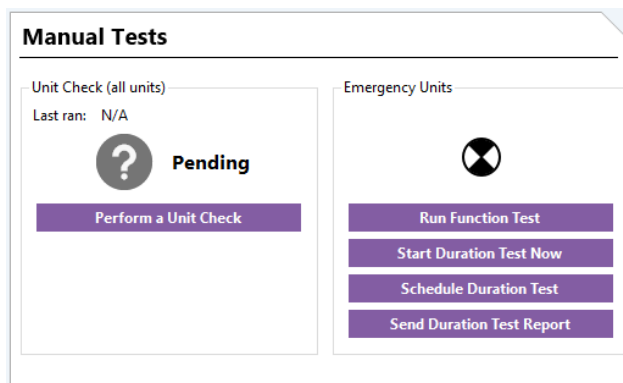


The RAPIX Facilities tag selection

When this is done, the RAPIX Facilities software will only show data for units that have the matching tag. The user interface changes slightly to show a different colour for the buttons to indicate that they will perform their tasks only for the tagged units.



Normal Operation

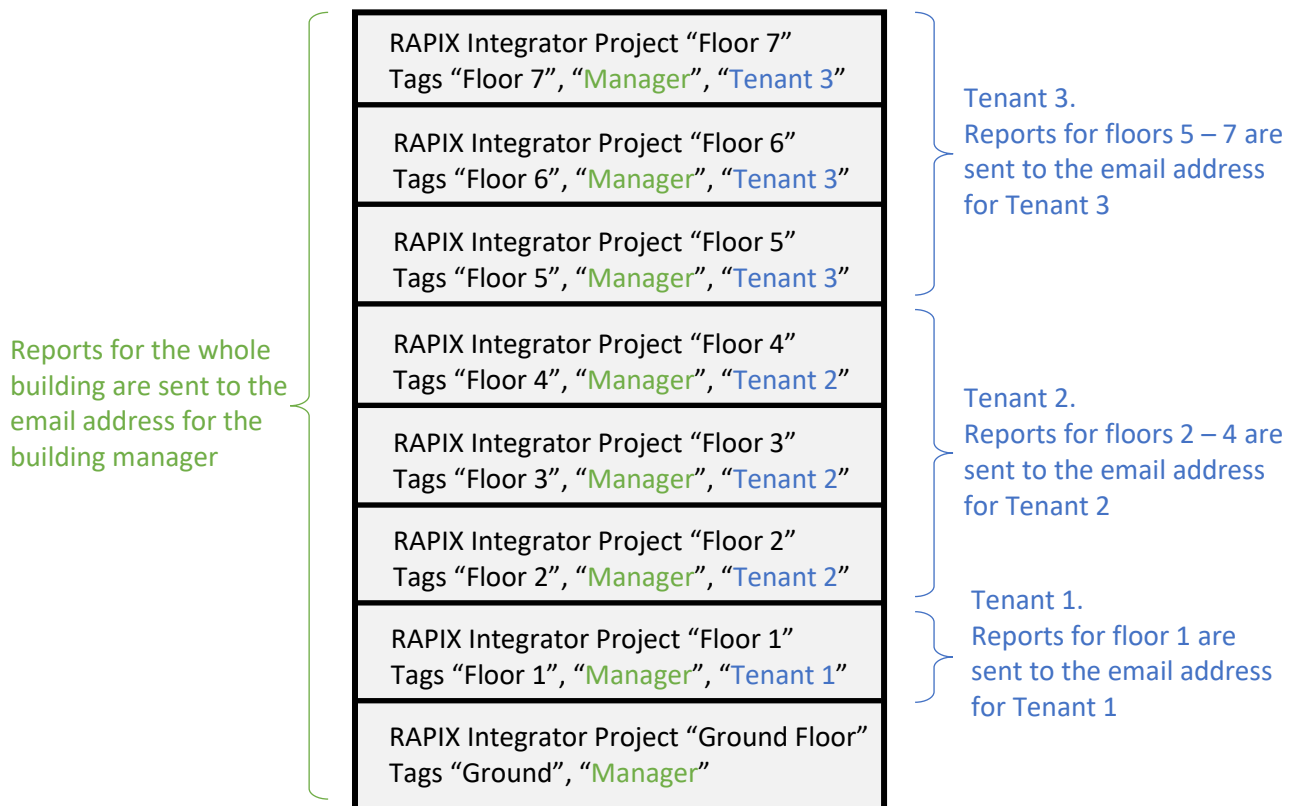


Tag Selected

Tenancies and Multi-Project Sites

RAPIX Facilities can be used with multiple RAPIX Integrator projects to allow them to be handled as a single site. In this situation, the tags from each project are combined. This supports tenants that occupy areas covered by more than one RAPIX Integrator project. For this to work correctly, it is essential that the same tag is used for each tenant in each of the RAPIX Integrator projects.

In the example below, some of the tenants occupy multiple floors of the building, with each floor having its own RAPIX Integrator project. The email address for each tenant in each RAPIX Integrator project has the relevant **tenant** tag. The email address for the building manager has the “**Manager**” tag, indicating that they want reports for all units.



An example multi-storey building with multiple tenants

Requirement	Solution
Email recipient receives report for everything in a single RAPIX Integrator project	Either do not tag the email recipient or apply the tag but don't tag individual units.
Email recipient receives report for selected units in a single RAPIX Integrator project	Apply the tag to the email recipient. Tag relevant units.
Email recipient receives single report for everything in multiple RAPIX Integrator projects	Apply the tag to the same email recipient in each project but don't tag individual units. Ensure tag name is identical in all projects. RAPIX Facilities will email a single joined report for the tests in all projects that start at the same time.
Email recipient receives single report for selected units in multiple RAPIX Integrator projects	Apply the tag to the email recipient. Tag relevant units. Repeat for each project relevant to the recipient. Ensure the same email address and tag name are used in each project. RAPIX Facilities will email a single joined report for the tests in all projects that start at the same time.

Change History

Rev	Date	Updated By	Comment
1	3 Oct 2025	DS, GK	First Release
2	5 May 2026	DS	Added details of tag "purpose"

Contact Information

Web www.ozuno.com
All Enquiries +61 8 8362 7584 sales@ozuno.com

Ozuno Trading Pty Ltd

ABN: 96 621 194 483

RAPIX is a trademark of Ozuno Holdings Pty Ltd.

DALI and **DALI-2** are trademarks of the Digital Illumination Interface Alliance (DiiA).

COPYRIGHT © 2025 This document is copyright by Ozuno Holdings Pty Ltd. Except as permitted under relevant law, no part of this application note may be reproduced by any process without written permission of and acknowledgement to Ozuno.

DISCLAIMER. Ozuno Holdings Pty Ltd (Ozuno) reserves the right to alter the specifications, designs or other features of any items and to discontinue any items at any time without notice and without liability. While every effort is made to ensure that all information in this application note is correct, no warranty of accuracy is given and Ozuno shall not be liable for any error.

TRADEMARKS. The identified trademarks and copyrights are the property of Ozuno Holdings Pty Ltd unless otherwise noted.

APN-RAPIX-032-01 Oct 2025