

Sensors & Controls

connecDIM on-premise

Manual

TRIDONIC

Table of contents

1. Validity	4
1.1. Copyright	4
1.2. Imprint	4
2. Safety instructions	5
2.1. Designated use	5
2.2. Dangers associated with the operation of the system	5
3. Details on the connecDIM on-premise upgrade	6
3.1. In addition to the standard app functions, the following is included:	6
3.2. Comparison of connecDIM features supported by cloud and on-premise version	7
4. The connecDIM system	9
4.1. System introduction	9
4.2. System component summary	9
4.3. Storage of data	9
4.4. Terms of use	10
5. Download the connecDIM apps	11
5.1. connecDIMLite	11
5.2. connecDIM Architect	12
6. connecDIM gateway hardware installation	13
6.1. Hardware requirements	13
6.2. Connect the DALI interface RS232 PS/S	13
6.3. Connect the Ethernet network	14
6.4. Connect the DC Power Supply	14
6.5. Check the lights and connections	14
6.6. Ensure the connecDIM gateway is visible on the local network	15
6.7. connecDIM network settings	15
7. Update existing connecDIM system	17
7.1. General	17
7.2. How to update the connecDIM gateway firmware	17
8. connecDIM schedules	22
8.1. General	22
8.2. Create schedules	22
9. Emergency lighting	25
9.1. Assumptions	25
9.2. Prerequisites	25
9.3. Emergency lighting	25

Table of contents

9.4. Emergency Lighting Scheduling	27
9.5. Emergency Lighting download test report	29
10. Logical Areas 32	
10.1. General	32
10.2. Working Principle of a Logical Area	32
10.3. Hop count for Logical Areas	35
10.4. Supported commands for Logical Areas	35
11. MSensor linking 36	
11.1. General	36
11.2. How to use MSensor linking	37
11.3. FAQ MSensor linking	40
12. Known limitations 41	
13. Documentation version history 43	

Validity

This operating instruction is valid for the connecDIM system.

TRIDONIC GmbH & Co KG is constantly striving to develop all its products. This means that there may be changes in form, equipment and technology.

Claims cannot therefore be made on the basis of information, diagrams or descriptions in these instructions.

The latest version of these operating instructions is available on our home page.

1.1. Copyright

This documentation may not be changed, expanded, copied or passed to third parties without the prior written agreement of TRIDONIC GmbH & Co KG.

We are always open to comments, corrections and requests. Please send them to info@tridonic.com

1.2. Imprint

Tridonic GmbH & Co KG
Färbergasse 15
6851 Dornbirn
Austria
T +43 5572 395-0
F +43 5572 20176
www.tridonic.com

Safety instructions

The instructions in this section have been compiled to ensure that operators and users of the connecDIM system from Tridonic are able to detect potential risks in good time and take the necessary preventative measures.

- _ This device may only be installed and configured by suitably qualified personnel.
- _ Every operator must read these operating instructions carefully and comply with the instructions contained therein.
- _ The operator must ensure that all users fully understand these instructions and adhere to them.

2.1. Designated use

The connecDIM system is a DALI monitoring and control solution. DALI devices including LED, colour changeable and emergency devices can be controlled locally via apps.

The connecDIM system components can be updated over the web, allowing for a continuously evolving solution.

2.2. Dangers associated with the operation of the system

- _ The owner must ensure that the wiring instructions and specifications for DALI lines are observed.

The following safety instructions must additionally be observed when using the connecDIM system for controlling emergency lighting systems:

- _ The owner must ensure that the country-specific regulations and standards for emergency lighting systems are observed.
- _ The connecDIM system may only be operated by a trained person who has been authorized by the owner and who is aware of possible dangers and has the professional training and knowledge, especially of the relevant regulations, to be assess the tasks he or she has been assigned to.
- _ The owner of the emergency lighting system must ensure that no one but authorized trained persons modify any settings of the connecDIM system.

Details on the connecDIM on-premise upgrade

To start using the new on-premise functions you have to upgrade the firmware to version $\geq 6.5.x$ in all gateways in the building. With this upgrade, you are able to configure the provided features with the Architect app alone. A cloud connection is no longer needed and also not possible anymore.

In addition to the standard app functions, the following is included:

- _ Logical Areas
With the integration to the app, this feature has been improved allowing the user to remove and add targets and rename them.

- _ Scheduling
In the app it is now possible to create schedules without using the cloud. When migrating from cloud to on-premises the existing scheduling will still work as expected.

- _ Device naming
This feature allows you to change the naming of every gateway and its respective devices, groups, scenes and lines. It enables a simple and easy identification of each system component.

- _ Over the air gateway firmware update

- _ Emergency auto testing and reporting
Reports are stored on the gateway on a monthly basis. The gateway saves up to two years of reports or until storage space is used up. If this is the case, the gateway will delete the older ones to make up room for new ones. In a normal usage scenario this will not happen and only reports older than two years will be deleted. Reports are deleted automatically.

- _ Settings of gateway time sync via NTP (network time protocol) Server
Every gateway must be time compliant with the place where it is located to ensure that all the scheduled tasks run at the correct time. By selecting a gateway in the latest app version, you are able to edit the time server of the selected gateway or of all unlocked gateways. Additionally, it is possible to change the time zone for each gateway separately. Internet connection is required to keep the gateway time in sync.

- _ Gateway lock function
With the gateway lock, you are able to set a password to protect the gateway thus preventing unwanted access and changes from anyone who can download the app from the App Store.
The app lists all the gateways available on the network and the respective locking status.

More detailed information is available in the manual at www.tridonic.com/com/en/download/technical/Manual_connecDIM_on-premise.pdf.

Details on the connecDIM on-premise upgrade

Comparison of connecDIM features supported by cloud and on-premise version

The following table shows the most used features and compares them between the two variants of connecDIM.

Function	Online version		on-premise
	Cloud	App	App and gateway
Gateway firmware / app version	<= 4.2	3.3.2	App 5.0 / Gateway >=6.5
Logical Areas	yes	no	yes
Scheduling	yes	no	yes
Device naming	yes	no	yes
Over the air gateway firmware update	yes	no	yes
Emergency auto testing and reporting	yes	no	yes
Setting of NTP for time synchronization	yes	no	yes
Gateway lock function	yes	no	yes
DALI commissioning, addressing, grouping, scenes	no	yes	yes
Cloud / internet connection needed	yes	no	no
Data storage	online	online	local
JSON RPC API	yes	no	no

Details on the connecDIM on-premise upgrade

Because the on-premise variant works without cloud, all cloud functions are no longer available. The following list shows some of the features that are not supported by the on-premise variant.

- _ Email alerts
- _ Predictive maintenance warnings
- _ Maintenance history
- _ Site settings
- _ Energy usage monitoring
- _ Recent warning settings
- _ Operating data
- _ Site log
- _ Backup function of gateway settings
- _ JSON RPC API
- _ User management
- _ Multi site management
- _ Remote site access

The connecDIM System

4.1. System introduction

The connecDIM system is a DALI monitoring and control solution. DALI devices including LED, colour changeable and emergency devices can be controlled locally via apps.

The connecDIM system components can be updated over the web, allowing for a continuously evolving solution.

4.2. System component summary

Image	Title	Description
	Gateway	<p>The gateway controls and monitors up to 4 DALI lines and runs locally. Each gateway monitors activities on the DALI lines and reacts by reporting information to the cloud if it is connected to the Internet.</p> <p>The gateway allows network control and configuration of the DALI devices connected to the gateway via the connecDIMLite and connecDIM Architect apps.</p> <p>Data such as scheduling information, time zone, Logical Areas and firmware updates are synchronized between the gateway and the cloud.</p>
	Architect App	<ul style="list-style-type: none"> _ Intuitive wireless commissioning of any size DALI system _ On-site luminary identification _ Easily configure DALI devices including emergency lighting and colour control devices _ Create test reports from the emergency lighting _ Create Schedulers to control your installation time based _ Give names to your luminaries, groups, scenes, logical areas _ Available for iOS
	connecDIM Lite	<ul style="list-style-type: none"> _ Wireless control of your lights _ For small home installations up to multi-level buildings _ Controls tailored to your devices _ Available for iPhone, iPad, iPod and Android

4.3. Storage of data

The connecDIM system collects data and stores it locally on the gateway:

- _ If the connecDIM system is used in combination with emergency applications:
 - Reports are stored on the gateway on a monthly basis. The gateway saves up to two years of reports or until it is out of storage space. In case of this event, the gateway will delete the older reports to make up room for newer ones. In a normal usage scenario this will not happen and only reports older than two years are deleted. Reports are deleted automatically.

The connecDIM System

4.4. Terms of use

To use the connecDIM system, you have to accept the Tridonic terms of use.

The terms of use can be found on the Tridonic web page at www.tridonic.com/eula

PHASED OUT

Download the connecDIM apps

The connecDIM on-premise system supports two different apps.
To download the apps go to the app store and type "connecDIM" in the search field.

5.1. connecDIMLite

- _ Wireless control of your lights
- _ For small home installations up to multi-level buildings
- _ Controls tailored to your devices
- _ Available for iPhone, iPad, iPod and Android



[Download](#)



[Download](#)

Download the connecDIM apps

5.2. connecDIM Architect

- _ Intuitive wireless commissioning of any size DALI system
- _ On-site luminary identification
- _ Easily configure DALI devices including emergency lighting and color control devices
- _ Create test reports from the emergency lighting
- _ Create schedulers to control your installation time based
- _ Give names for your luminaries, groups, scenes, logical areas
- _ Available for iOS

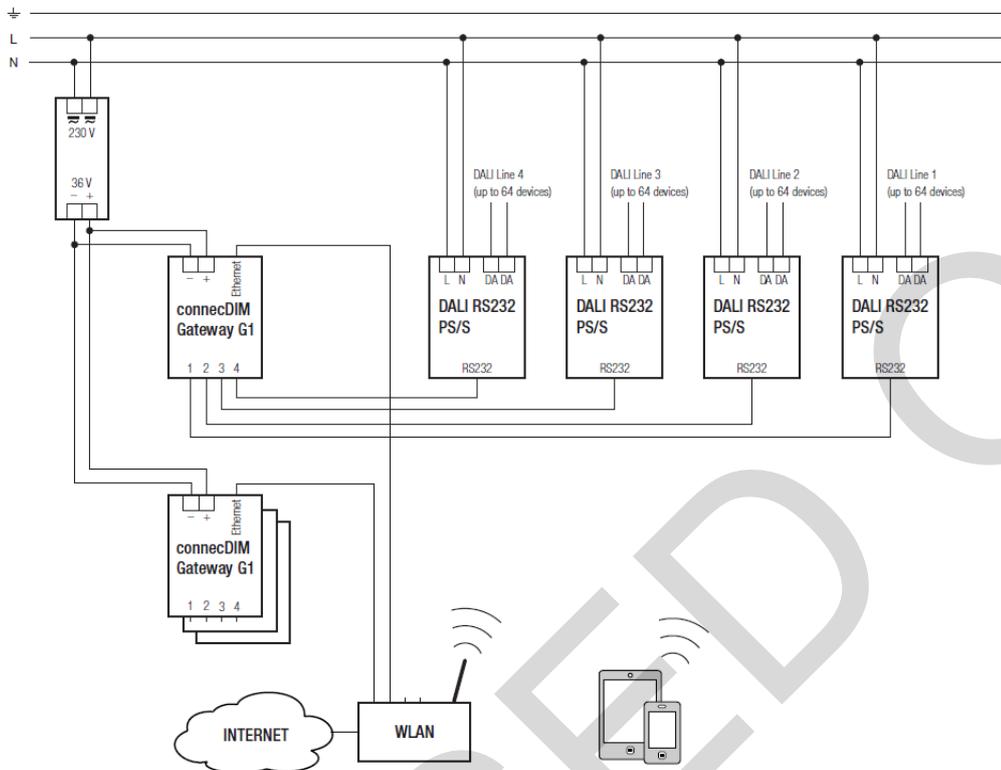


[Download](#)

connecDIM gateway hardware installation

6.1. Hardware requirements

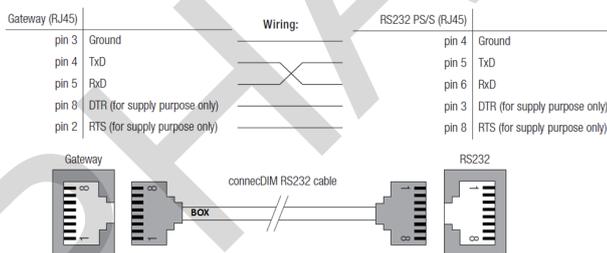
To install a connecDIM system the following hardware is needed:



1. connecDIM gateway
2. DALI interface RS232 PS/S
3. connecDIM RS232 cable
4. 9-48V DC power supply
5. Ethernet network or router with DHCP active
6. Smart-device iOS or Android with the Architect app

6.2. Connect the DALI interface RS232 PS/S

The DALI interface RS232 PS/S is the interface to the DALI line.



- To connect the connecDIM gateway to the DALI-PS/S, use the connecDIM RS232 cable.
- Connect the end of the cable marked with BOX into the connecDIM gateway and the other end into the DALI interface RS232 PS/S.

⚠ CAUTION!

The DALI interface RS232 PS/S should be installed by a certified electrician.

connecDIM gateway hardware installation

6.3. Connect the Ethernet network



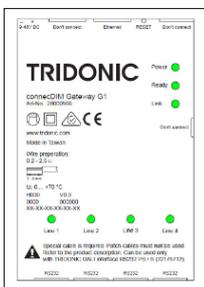
- _ Connect an Ethernet cable from your LAN network to the port labelled "Ethernet" on the connecDIM gateway.
You must have a DHCP router to hand out IP addresses, most routers will have this functionality built in.
- _ If the gateway requires a constant IP address for the gateway, use a router with DHCP reservation support.

6.4. Connect the DC Power Supply



The DC power supply can be in the range of 9-48 VDC. The power supply is connected through connector to the top left of the gateway where it is labelled "9-48V DC".

6.5. Check the lights and connections



The connecDIM gateway make a beep sound after power is connected. The Power, Ready and Link lights should turn on and the gateway will make a sequence of beep sounds indicating that the gateway is on.

The LED lights have the following meaning

1. Power – the connecDIM gateway has power
2. Ready – the firmware on the gateway is running
3. Link – the network is working and flashing indicates communication
4. Line 1, 2, 3 & 4 – communication to the DALI lines

connecDIM gateway hardware installation

6.6. Ensure the connecDIM gateway is visible on the local network



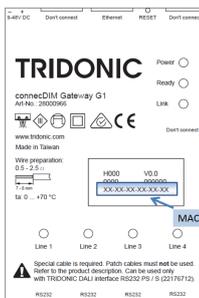
Confirm the setup is complete by connecting to the gateway with the connecDIMLite or connecDIM Architect app and perform a broadcast test.

NOTICE

To perform a broadcast test you need the connecDIMLite or connecDIM Architect app which can be downloaded in the Apple store or in the Google play store.



- _ Make sure you have a wireless router connecting both the gateway and the iOS/Android device through the Ethernet.
- _ Start the connecDIM Architect app. The gateway will be found automatically and allow you to control the lights.
- _ The connecDIM apps will show the MAC address of the connecDIM gateway if you can't see the sticker.
 - _ the MAC address is located on the label directly and on the side of the gateway.



6.7. connecDIM network settings

The connecDIM gateway does not require any incoming ports open which increases security. All communication is from the inside. The gateway does not use a static ip address, it only works via DHCP.

If a site has an outgoing firewall, then the following ports need to be opened for communication to the cloud:

Outgoing Timeserver

ntp.connecdim.com => UPD 123

Incoming Ports

The gateway does not require any incoming ports to be opened on the firewall.

As the connecDIM system apps, connecDIM Architect and connecDIM Lite work from inside the network it is not necessary to do special settings in the firewall. Still in some cases it may be necessary to open port 1291 as the communication Apps - Gateway happens over this port.

connecDIM gateway hardware installation

NOTICE

Some networks do not support broadcast commands. The connecDIM apps and the gateway are sending broadcast commands to communicate. This function must be activated.

PHASED OUT

Update existing connecDIM system

7.1. General

Before you are able to use the new connecDIM on-premise system, the first step is to update your connecDIM gateway with the latest firmware version.

For the firmware update the app connecDIM Architect is needed, how to get the app is explained at [Download the connecDIM apps](#), S. 11.

⚠ CAUTION!

Make sure you know what you are doing!

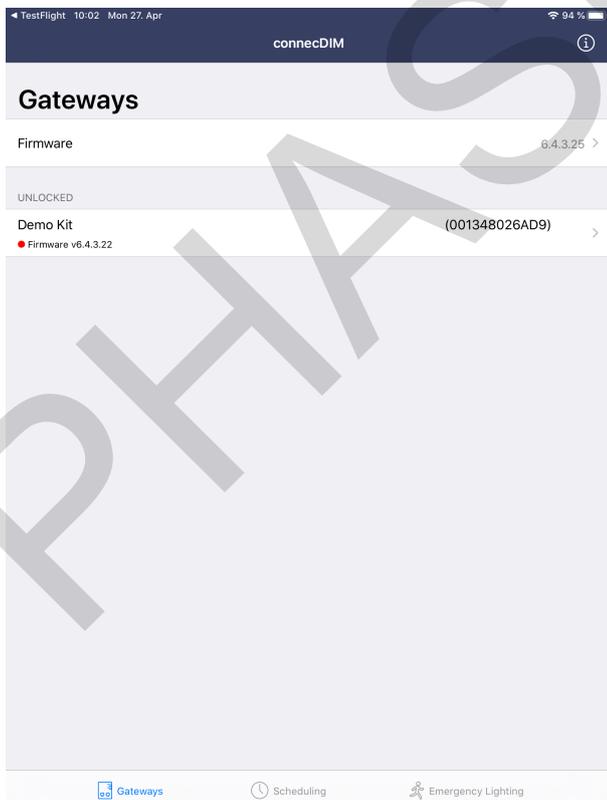
Once the connecDIM gateway is updated, it is no longer possible to connect the gateway back to the connecDIM cloud. This is important for existing connecDIM cloud users. An overview of functions that are supported by the on-premise version and the on-premise version can be found at [Details on the connecDIM on-premise upgrade](#), S. 6.

7.2. How to update the connecDIM gateway firmware

⚠ CAUTION!

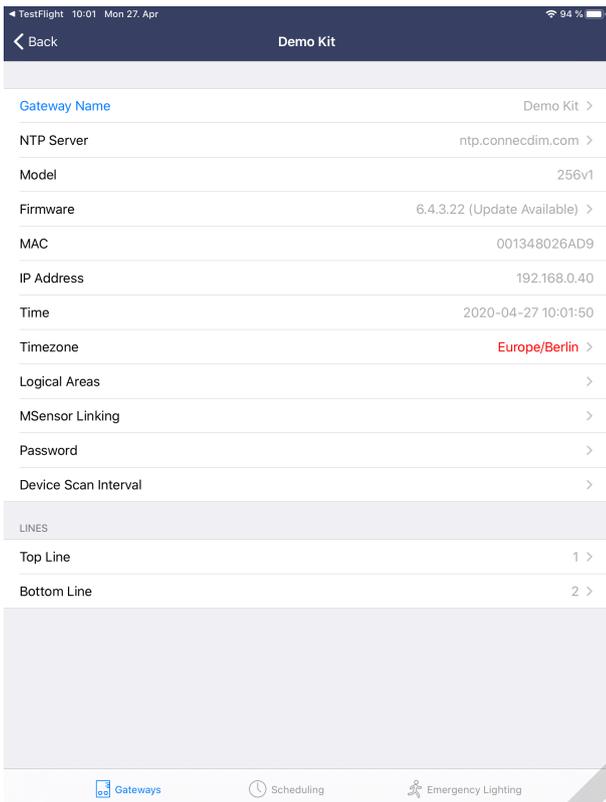
Only gateways with firmware version 3.6.5.1 (release date: 23/07/2018) or higher can be updated to the on-premise version via the Architect app.

- _ If your gateway has an older firmware version, please contact your local Tridonic support.



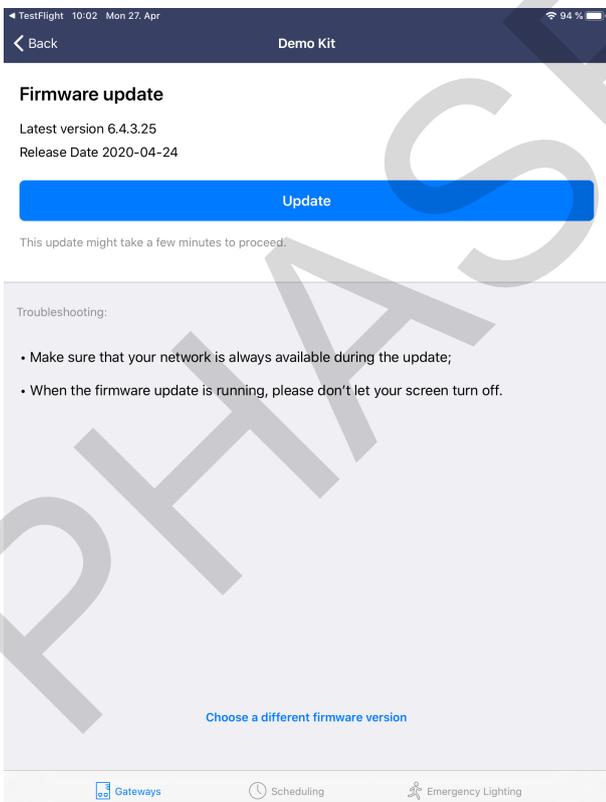
- _ Open the Architect app
 - > You will see a list of gateways in your network.
 - > On top the latest available firmware version is visible.
 - > If a gateway has not the latest firmware version, it is visible in the gateway list and visualized with a red dot.
- _ To update a gateway firmware, select the gateway.

Update existing connecDIM system



Once you have selected the gateway, you will see that a new firmware update is available.

- Select the firmware update field to reach the next window.

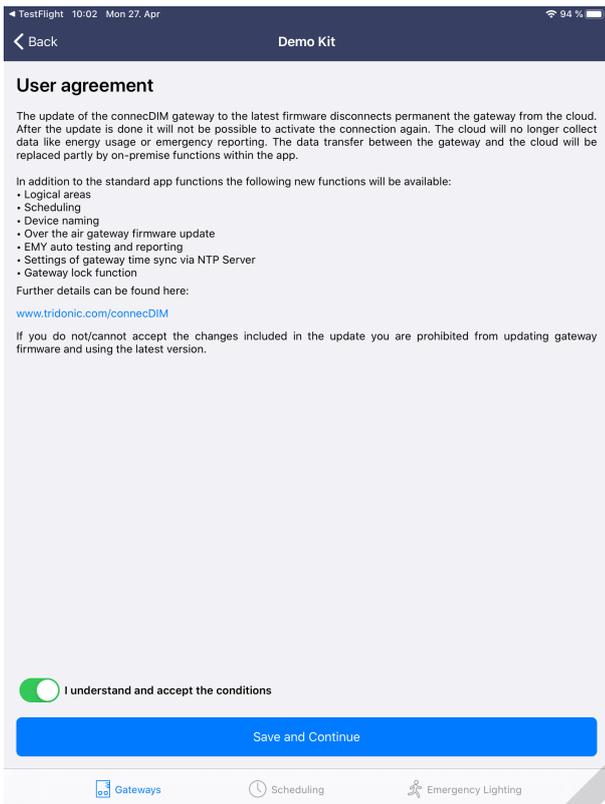


In the new window select "Update".

NOTICE

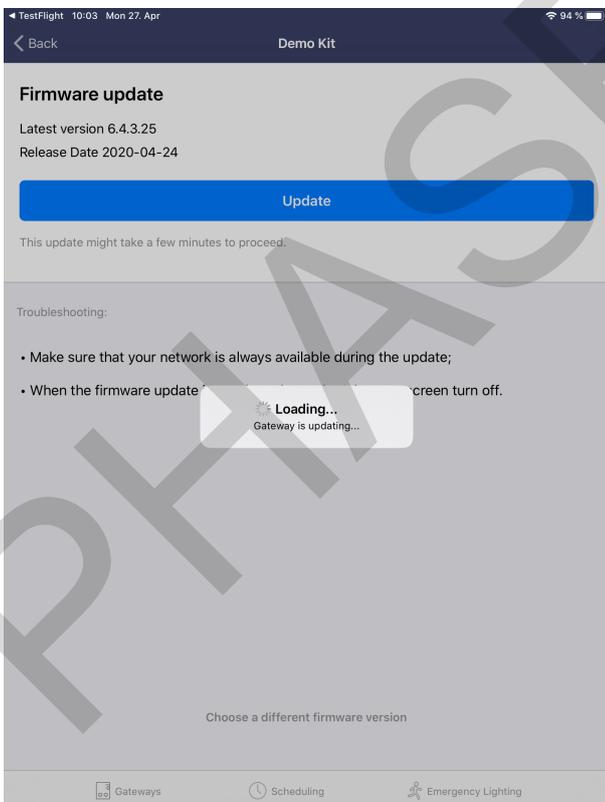
On the bottom of the screen the field "select different firmware version" can be selected. This function is only meant for users who need to downgrade the firmware version of their gateway. To get other firmware, please contact your local Tridonic support.

Update existing connecDIM system



To be able to update the firmware, you need to read and confirm the user agreement.

- After you have read and confirmed the user agreement, select "Save and Continue".

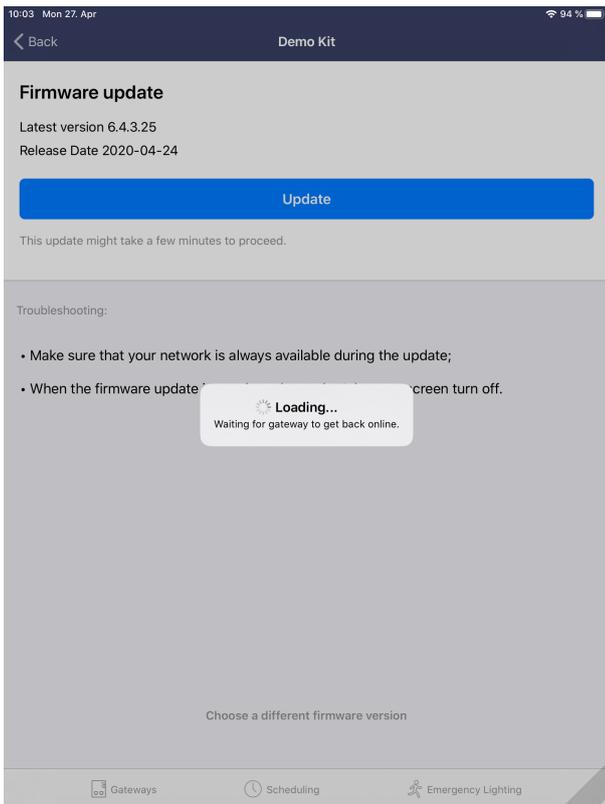


Once you agreed to the user agreement and selected "Save and Continue" you can select again the update field and the firmware update will start.

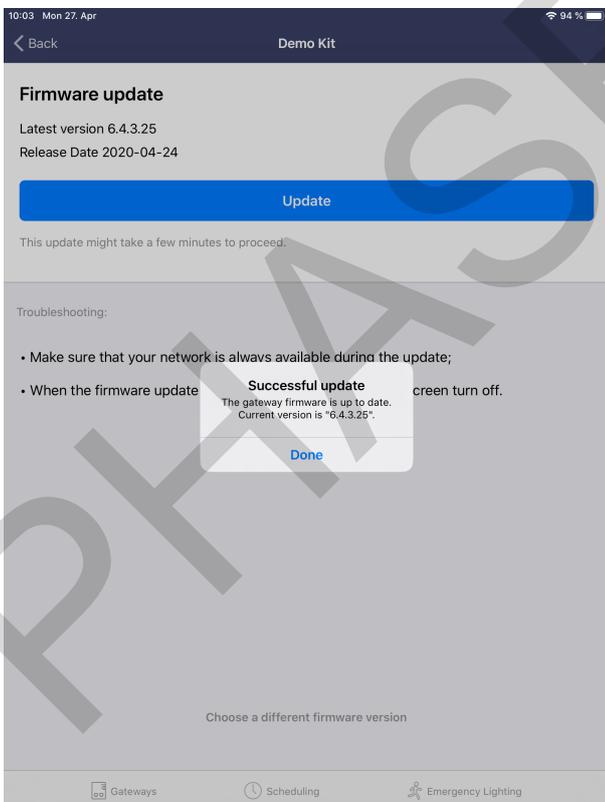
NOTICE

Make sure that you have a stable network connection and do not power off your smart device or the gateway during this process

Update existing connecDIM system



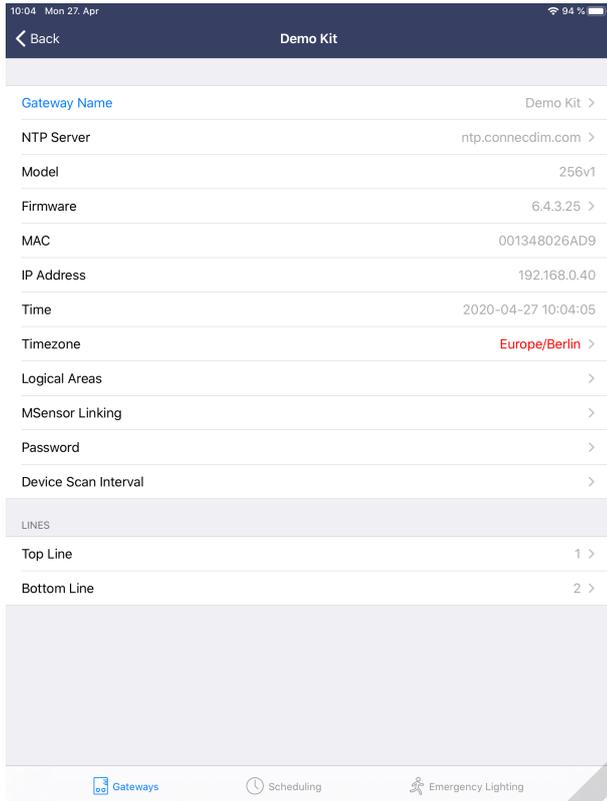
During the update the gateway will reboot itself. The gateway itself will signalize this with a "beep" sound. In the app you can follow the status of the update process.



Once the firmware update is finished, the app will visualize this.

- Select "Done".

Update existing connecDIM system



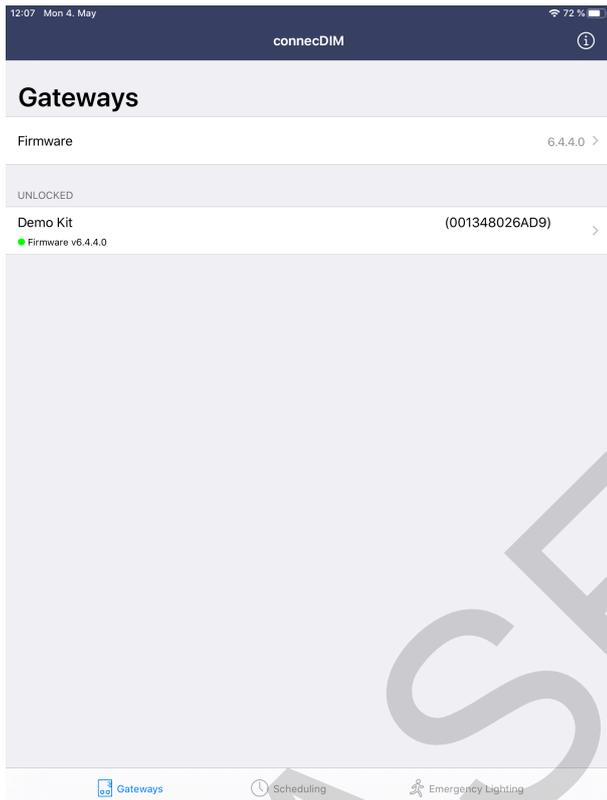
If you select the gateway again, you will see that the gateway has the latest firmware installed and no additional firmware is available.

connecDIM schedules

8.1. General

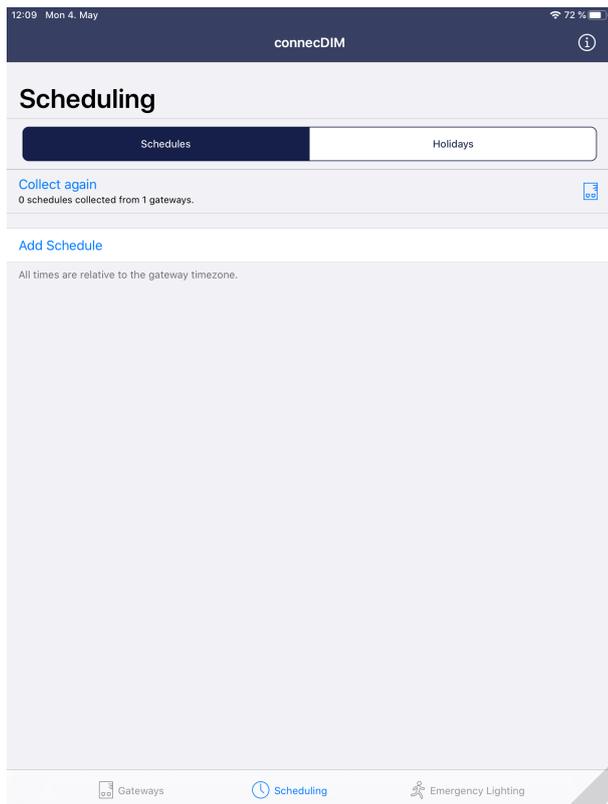
Schedules enable you to define a set of commands and combine them with a time frequency. At the given frequency the commands will automatically be started. This way, complex light solutions can be implemented and controlled easily.

8.2. Create schedules



- _ Open the app.
 - > You will see an overview of all gateways connected to your network.
 - > On the bottom, the field "Scheduling" is available.
- _ Select the field "Scheduling".

connecDIM schedules



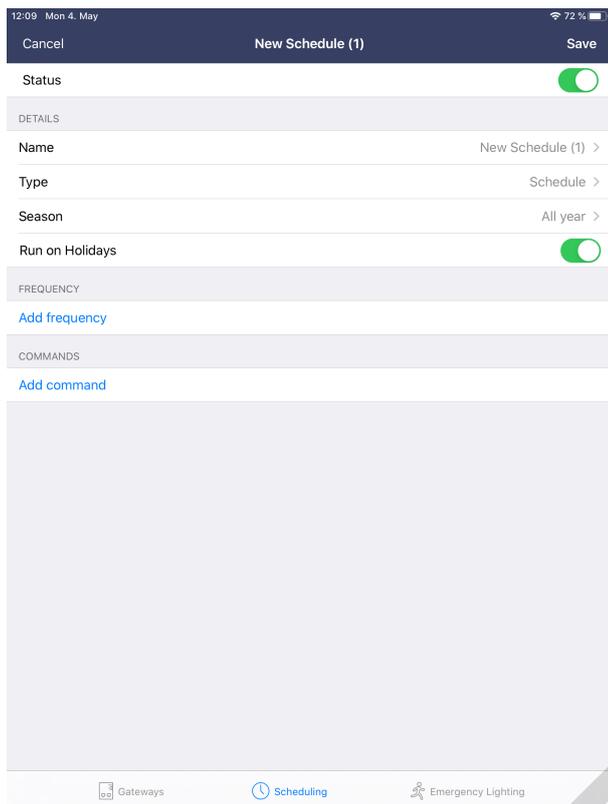
In the landing page for the Scheduling creation section you will see an overview.

You can select between "Schedules" and "Holidays". Holidays can be programmed so you can have special schedules who do e.g. run only on holidays and other who are not running on holidays.

If the app recognizes any existing schedules, they will be visible in the "Collect again" field.

- _ If you don't see any schedules, but you know that you have some, then select the field "Collect again"
- _ To create a schedule select "Add Schedule"

connecDIM schedules



In the new field you can give a name to the schedule.

- _ Select "Type" to select the type of the schedule. Two types are available: "Schedule" and "Light curve"

The light curve scheduler is a special feature and allows you to change the light level and colour temperature during the day. It is an easy way to simulate different light colours and level over the day.

- _ If you select "Light Curve" you can select if the Level, Colour temperature and Colour XY values should be programmable.
- _ If you select that the Scheduler type is "Light curve" then you will see a new field "Add Point" This allows you to add different times with different light and colour values over the day. If e.g. you select one point that at 6 AM the light should turn on with 20 % dim level and a colour temperature of 5.000 K and select another point e.g. that at 7 AM the light should reach 100 % dim level and colour temperature should be 3.000 K, the light will start with the values programmed for 6 AM and during the 1 hour period until the next point 7 AM it will change the dim level and colour temperature so that it smoothly reaches the levels programmed for the 7 AM point.

- _ Select "Season" to select different time-frames when the scheduler should be executed. You can select between "All year" or "Between"
- _ Select "Run on Holidays" if a schedule should run also on holidays or not.
- _ Select "Add frequency" to select how often the scheduler should be executed. You can select between:
 - _ Every Day
 - _ Every Weekday
 - _ Every Weekend Day
 - _ Every Holiday
 - _ On Day(s) of Week
 - _ On Day of Month
 - _ On Day of Year
- _ Select "Add command" to select the command which should be executed with the scheduler.

After you have selected everything needed, select "Save" on the top right corner and the scheduler will be saved to your gateway.

Emergency lighting

9.1. Assumptions

This document assumes that the reader has a working knowledge of DALI. The user should have an understanding of how to install and address a DALI line and a connecDIM gateway.

9.2. Prerequisites

The user should have a DALI emergency light wired and connected to a connecDIM gateway connected to the Ethernet network. The user should also have access with the iPad and Architect app to the same wireless network where the connecDIM gateway is connected to.

9.3. Emergency lighting

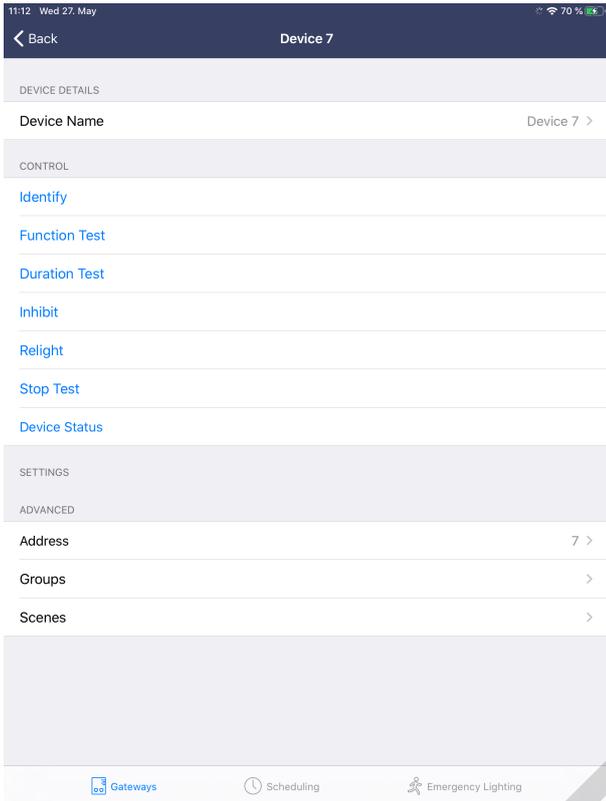
The connecDIM Architect app enables the user to monitor and schedule emergency lights through the app.

Emergency lights automatically appear in the "Devices" and "Emergency Lighting" windows on the Architect app.

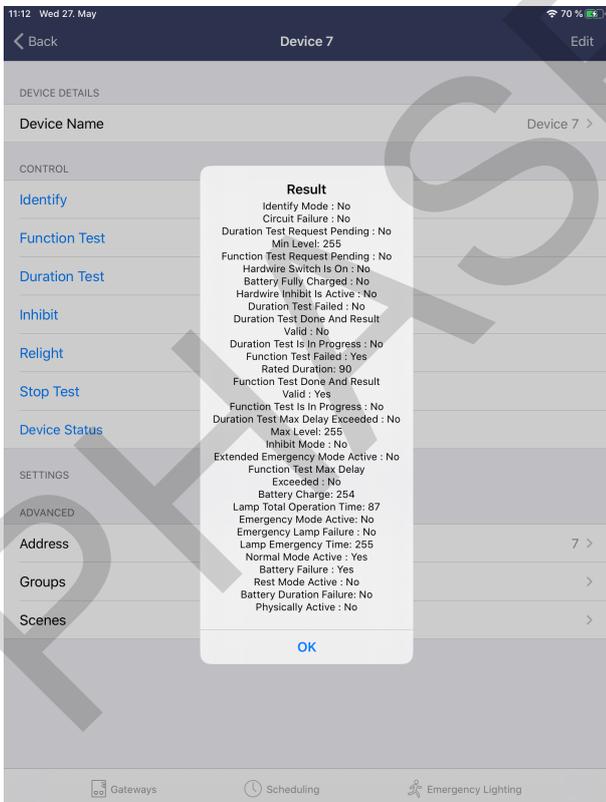


The Devices window (Hardware/Devices) will show all devices with general luminaire information. Emergency devices are shown with a running man icon (see "Device 7").

Emergency lighting



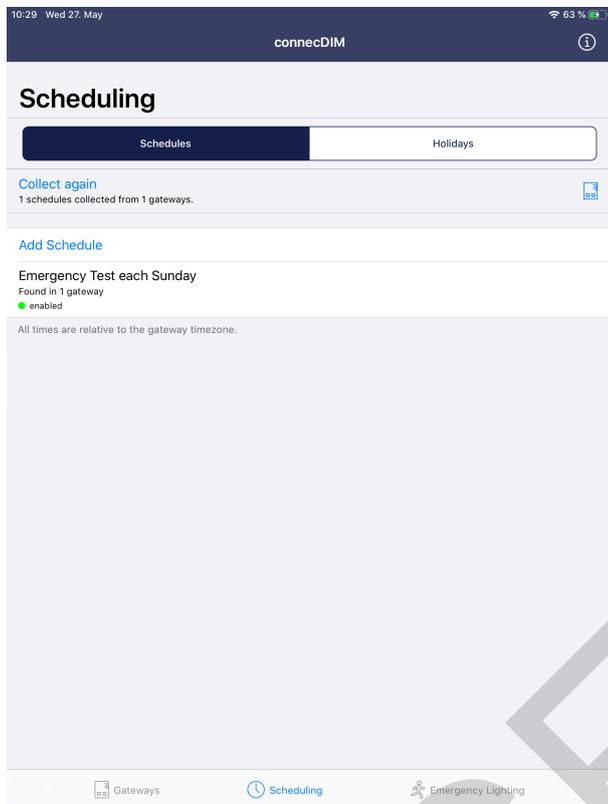
Choosing this device opens the device details. Different settings for the device are available.



Choosing the device status shows all parameters of the emergency device.

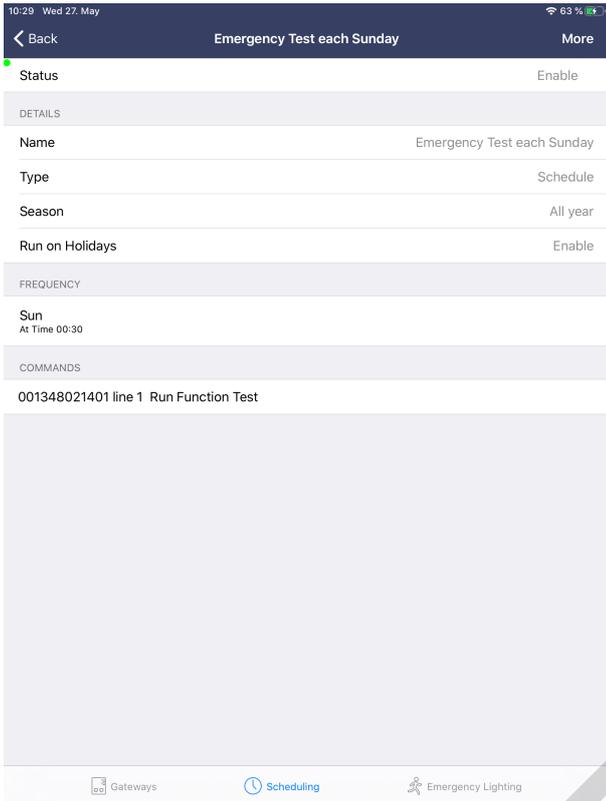
Emergency lighting

9.4. Emergency Lighting Scheduling



- To create a schedule for an automated emergency test, select "Schedules" and "Add Schedule" to add a new schedule.

Emergency lighting



_ Type in the name of the schedule and all desired values.



_ Choose in the emergency section the desired command.

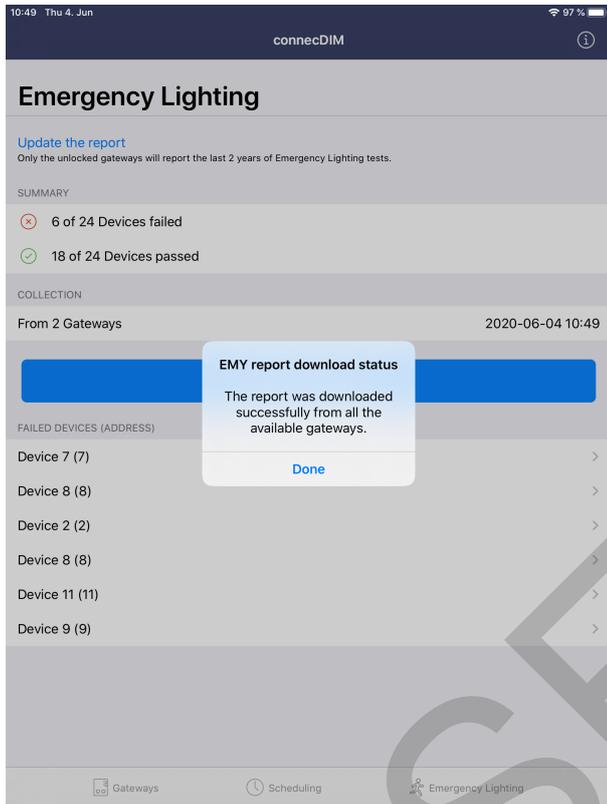
- _ Run Function test
- _ Run Duration test
- _ Stop Testing

Emergency lighting

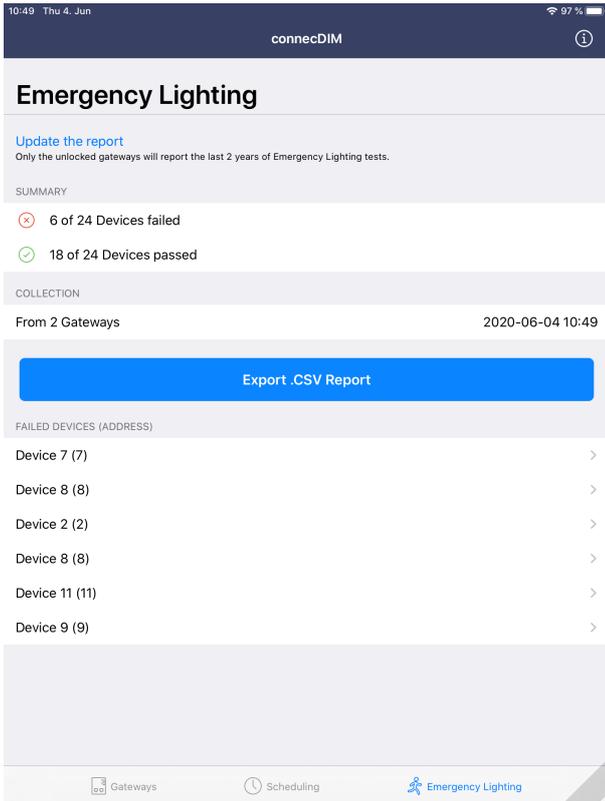
9.5. Emergency Lighting download test report

When a scheduled emergency test is done, each gateway stores the emergency report on the gateway. In the emergency part of the app it is possible to collect all the data. An overview is visible and there is the possibility to download the report.

- _ To download all the emergency content from all the gateways, select "Update the report".



Emergency lighting



-> Now, all passed and failed devices from all gateways are visible.

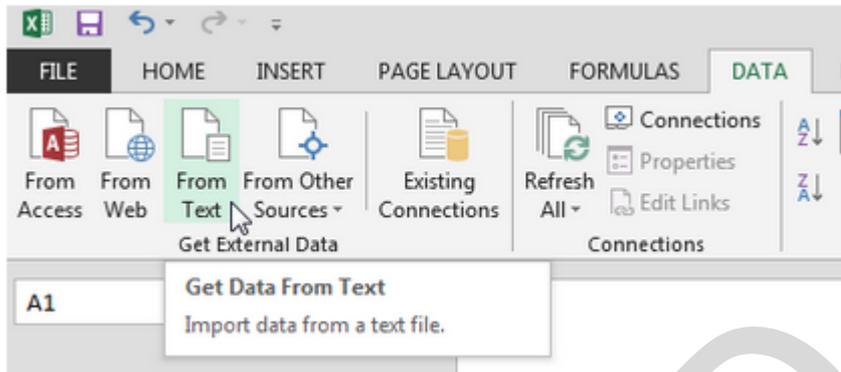
- To download the report as a .CSV file, select "Export .CSV Report".

Emergency lighting

NOTICE

To open the CSV emergency report, Excel is needed.

- _ Open Excel.
- _ Navigate to the "Data" tab.
- _ Import data with the "Get Data From Text" function.



After importing the data, the report will be displayed in the following user-friendly view.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Gateway Name	Gateway MAC Address	Line Number	Device Name	DALI Address	Previous Address	Tridonic Device GTIN	Test Date and Time [24h]	Test Type [Duration, Function or Communication Test]	Status [pass/fail]	DALI Emergency Mode	DALI Emergency Status	DALI Emergency Failure Status	Unix TimeStamp
2	GW 2	001348028D63	3	Device 2	2	0	0	04.06.2020 08:58	Function Test	fail	130	14	128	1.591265+12
4	GW 2	001348028D63	3	Device 2	2	0	0	04.06.2020 08:58	Function Test	fail	130	14	128	1.591265+12
5	GW 2	001348028D63	1	Device 5	5	0	0	04.06.2020 09:25	Function Test	pass	144	14	0	1.591266+12
6	GW 2	001348028D63	1	Device 5	5	0	0	04.06.2020 09:25	Function Test	pass	144	14	0	1.591266+12
7	GW 2	001348028D63	1	Device 7	7	0	0	04.06.2020 09:25	Function Test	fail	144	14	128	1.591266+12
8	GW 2	001348028D63	1	Device 7	7	0	0	04.06.2020 09:25	Function Test	fail	144	14	128	1.591266+12
9	GW 2	001348028D63	1	Device 11	11	0	0	04.06.2020 09:25	Function Test	pass	144	14	0	1.591266+12
10	GW 2	001348028D63	1	Device 11	11	0	0	04.06.2020 09:25	Function Test	pass	144	14	0	1.591266+12
11	GW 2	001348028D63	1	Device 18	18	0	0	04.06.2020 09:25	Function Test	pass	144	14	0	1.591266+12
12	GW 2	001348028D63	1	Device 18	18	0	0	04.06.2020 09:25	Function Test	pass	144	14	0	1.591266+12
13	GW 2	001348028D63	3	Device 2	2	0	0	04.06.2020 09:25	Function Test	fail	144	14	128	1.591266+12
14	GW 2	001348028D63	3	Device 2	2	0	0	04.06.2020 09:25	Function Test	fail	144	14	128	1.591266+12
15	GW 2	001348028D63	3	Device 9	9	0	0	04.06.2020 09:25	Function Test	pass	144	14	0	1.591266+12
16	GW 2	001348028D63	3	Device 9	9	0	0	04.06.2020 09:25	Function Test	pass	144	14	0	1.591266+12

Logical Areas

10.1. General

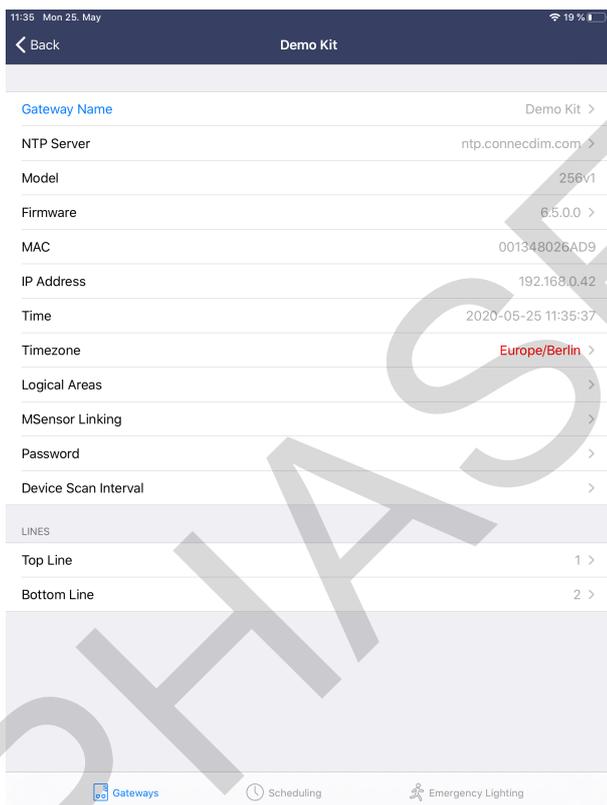
Logical Areas are allowing you to create "virtual groups" which can be spread over several gateways and DALI lines. connecDIM makes it possible to control buildings in spaces (e.g. rooms, levels) without the need for DALI knowledge.

Opportunities offered by Logical Areas:

- _ Can be controlled with one Tridonic DALI device
- _ Can be scheduled

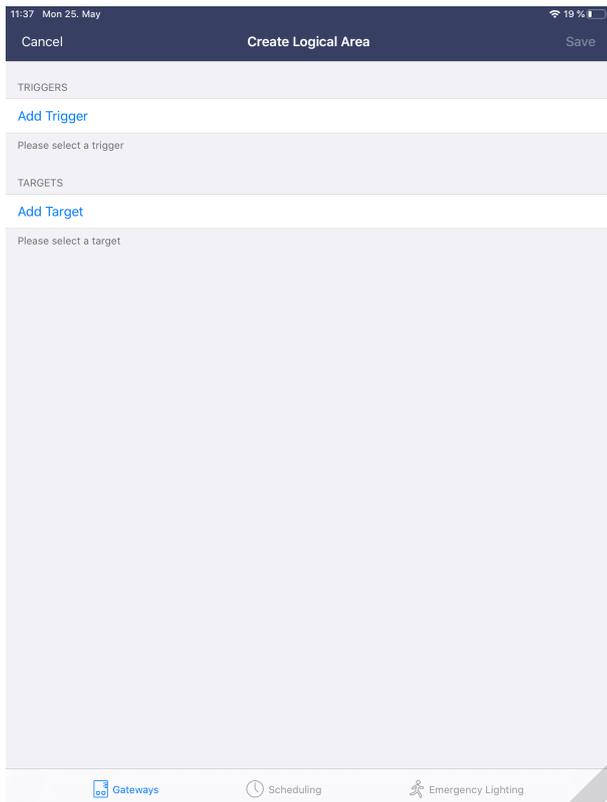
10.2. Working Principle of a Logical Area

One Logical Area always has one Trigger and can have one or more Targets. Commands send to the Trigger by e.g. the DALI XC which is located on the same DALI line like the Trigger will be monitored by the connecDIM Gateway and forwarded to the Targets. The Targets can be spread all over your connecDIM network. This allows you to control multiple DALI lines from one single point in the building.

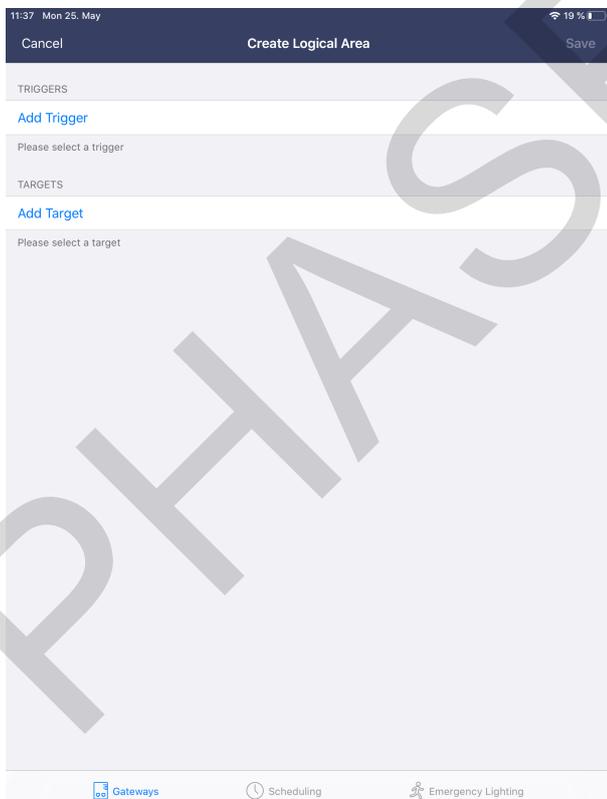


- _ To create a Logical Area, you need to select your Gateway.
-> You will see the field "Logical Areas".
- _ Select this field

Logical Areas



In the new window you can create a Logical Area by selecting the field "Create Logical Area".

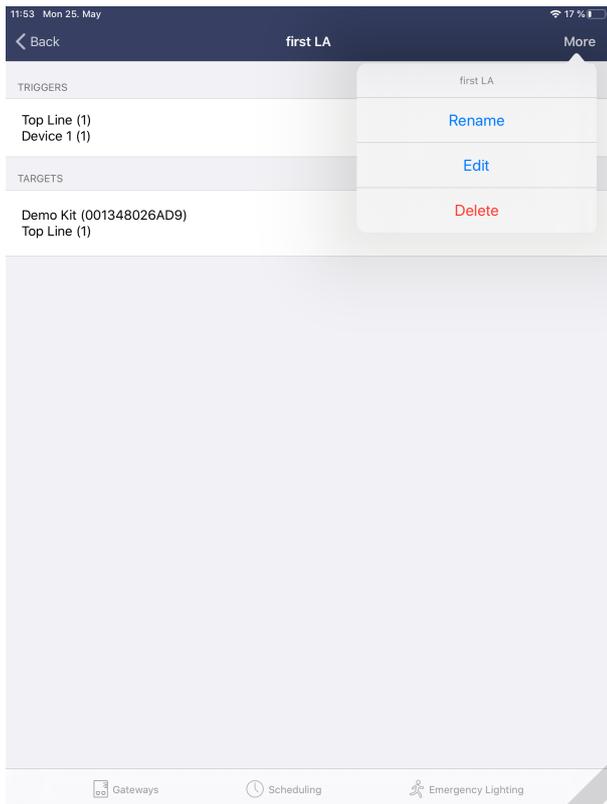


In the next window you can add triggers and targets to your Logical Area.

A trigger can be a DALI line, group or device connected to the gateway you have selected. Each command send to the trigger e.g. OFF by a DALI XC will be monitored by connecDIM system and forwarded to the target. Only one trigger which can be a DALI line, group or device should be selected as a trigger. Even it is possible to select multiple triggers, it is not recommended to do so. Targets can be connected to any gateway in your network. Several DALI lines, groups or devices can be selected as a target.

- _ Once you have selected the trigger and the targets for your Logical Area select "Save" on the top right corner. After selecting "Save" you will need to give a name for the Logical Area.
- _ After you have entered the name for the Logical Area, select "Create" and the Logical Area information will be stored to the Gateway.

Logical Areas



Already created Logical Areas can also be modified once they have been created.

- _ To do so, select your Logical Area
-> In the new window you will see the field "More".

By selecting this field you will see the editing window and can then delete, rename or edit the Logical Area.

NOTICE

To avoid or minimize delay times between the sending of a command to the trigger and the time it reaches all targets, consider the following instructions:

- _ Do not put trigger and targets on the same DALI line. A setup like this (for example: Trigger of Logical Area is group 1 on line 1 of gateway 1, target is group 3 on line 1 of gateway 1) would lead to delays. If you need such a setup, create an additional group where the devices of group 1 and group 3 are in. This way, you also do not need to create a Logical Area.
- _ Do not use too many targets. A setup like this (for example: Trigger is group 1 on line 1 of gateway 1, targets are group 1, group 2 and group 3 of line 2 of gateway 1) would lead to delays because of the time it takes until all targets have received the command sent to the trigger. To reduce the number of targets, create an additional group on line 2 of gateway 1 (group 4 for example), add the devices of group 1, 2 and 3 to this group and then only use this group 4 as a target.
- _ Do not send too many DALI commands over a Logical Area. If you use MSensor for daylight regulation or Light Over Time functions and send more than one DALI command per 5 seconds over a Logical Area, there might be delays because of the time it takes until a DALI command has reached all targets. If you use more than one Logical Area also make sure that the total number of commands sent over all Logical Areas together is below one per 5 seconds.
- _ Delays can also be caused by traffic on separate DALI lines.
- _ If the tips above do not improve the situation, try to reduce traffic on the single DALI lines.

Logical Areas

10.3. Hop count for Logical Areas

In Logical Areas only one hop is allowed to prevent infinite linking loops.

E.g. 2 Logical Areas are created. Logical Area one with trigger Line 1 and target Line 2 and Logical Area two with trigger Line 2 and target Line 1. Without the hop count this would end in an infinite loop. But because of the hop count if e.g. Logical Area one is triggered, the command will be sent to Line 2 but Logical Area 2 will not be triggered.

10.4. Supported commands for Logical Areas

The following commands sent to the trigger will be forwarded to the target.

- _ ENABLE DEVICE TYPE X
- _ DIRECT ARC POWER
- _ DATA TRANSFER REGISTER (DTR)
- _ DATA TRANSFER REGISTER 1 (DTR1)
- _ STORE DTR AS FADE TIME
- _ OFF
- _ UP
- _ DOWN
- _ STEP UP
- _ STEP DOWN
- _ RECALL MAX LEVEL
- _ RECALL MIN LEVEL
- _ STEP DOWN AND OFF
- _ ON AND STEP UP
- _ GO TO SCENE (0-15)
- _ Color:
- _ SET TEMPORARY COLOUR TEMPERATURE T_c
- _ SET TEMPORARY x-COORDINATE
- _ SET TEMPORARY y-COORDINATE
- _ ACTIVATE
- _ ED:
- _ Presence Event (send by MSensor)

CAUTION!

If MSensors are used for light regulation in a Logical Area, the control speed should be set to low. This will reduce the risk of delays in the Logical Area.

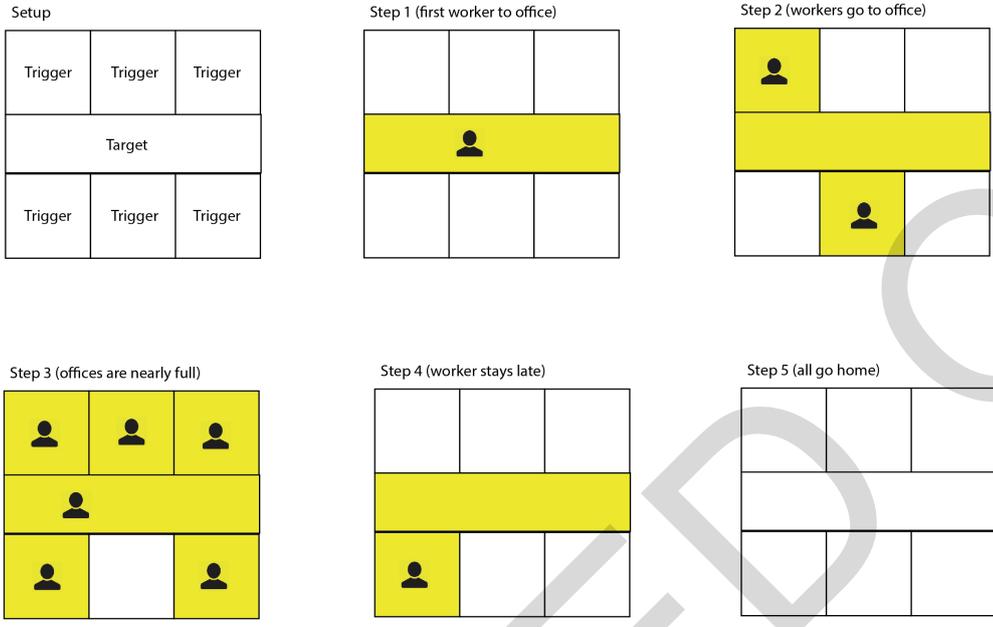
Also the shallow and medium scan can cause delays. For that reason try to avoid using shallow and medium scans.

MSensor linking

11.1. General

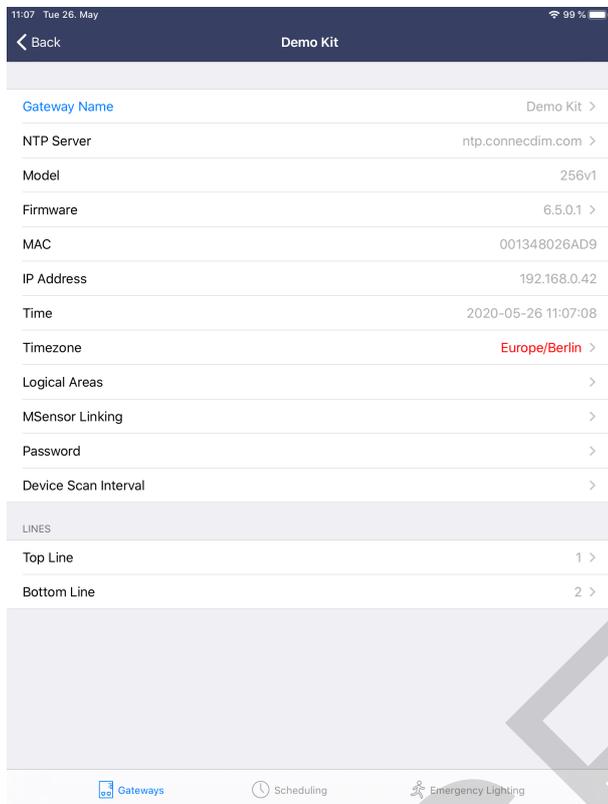
The MSensor linking feature makes it possible to use MSensor motion events and link the information between multiple MSensors over multiple DALI lines.

This feature allows you e.g. to have the light in the corridor of a building switched on for as long as there is motion in any other room.



MSensor linking

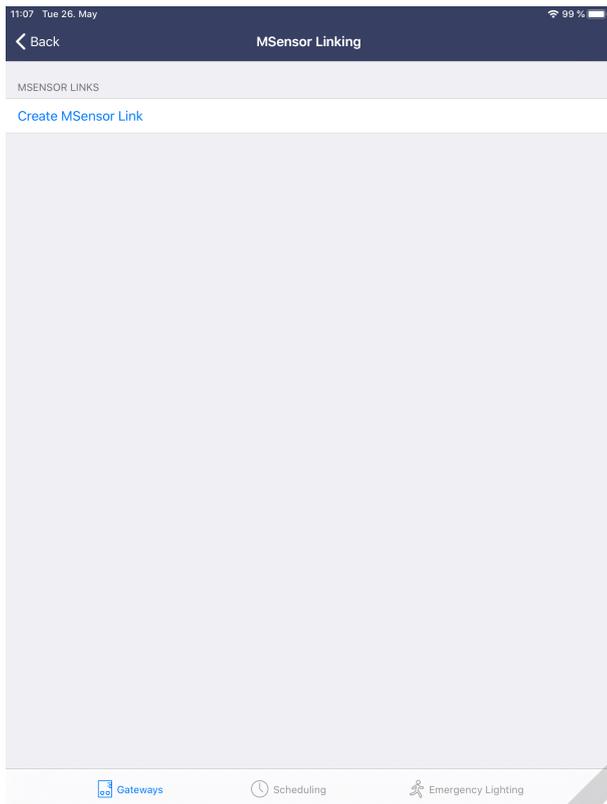
11.2. How to use MSensor linking



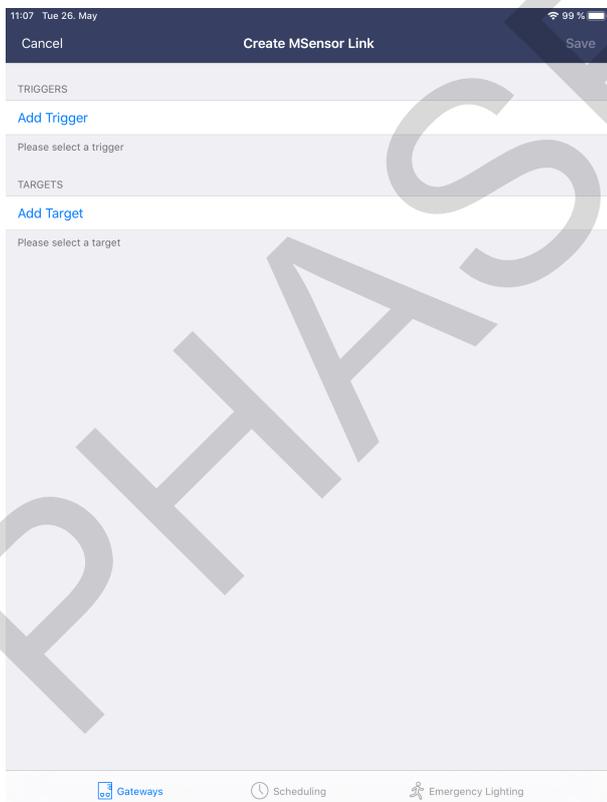
_ To create MSensor linking, you need to select your gateway.
-> You will see the field "MSensor Linking".

_ Select this field.

MSensor linking

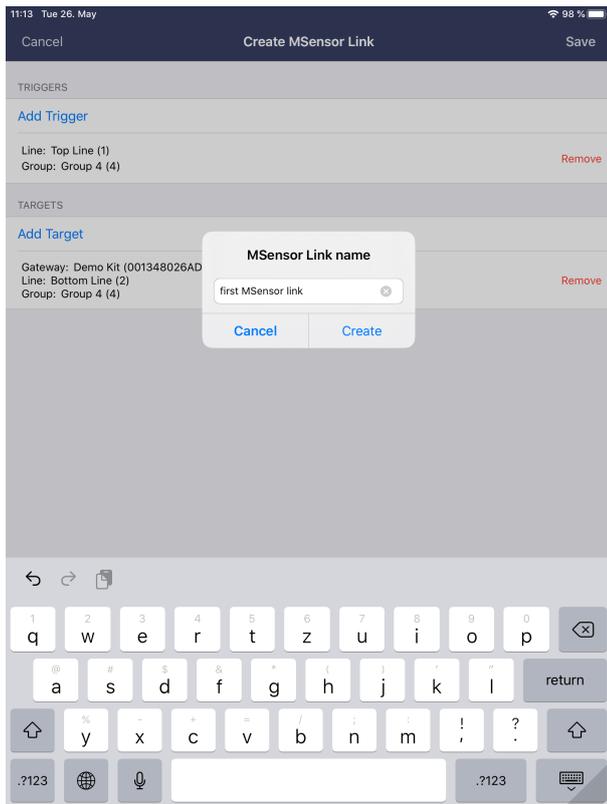


In the new window you can create an MSensor link by selecting the field "Create MSensor Link".

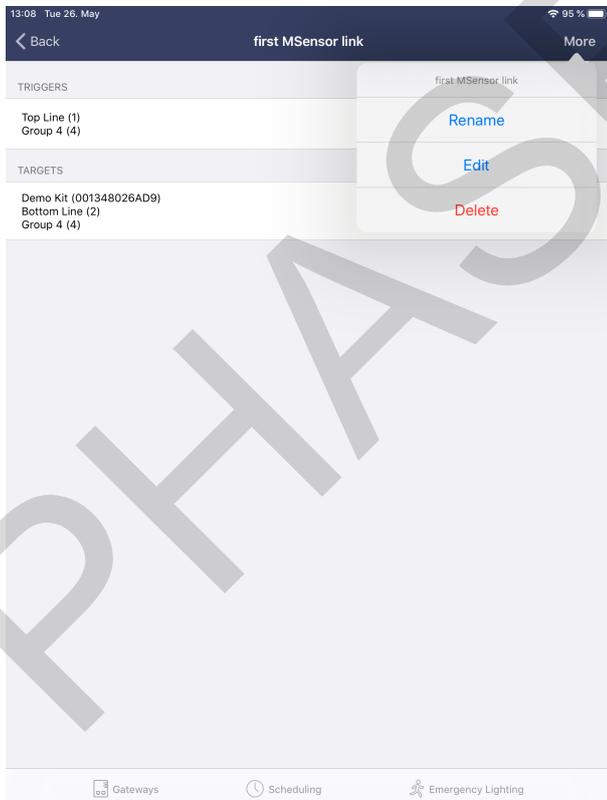


In the next window you can add trigger and target to your MSensor link. Trigger and targets are groups on your DALI line that are controlled by at least one MSensor. You can have multiple trigger and target groups. Triggers will send their movement information to the target group, this means that if in the target group there is no movement the MSensor will get movement information from the triggers and will turn on the light in the target group.

MSensor linking



- Once you have selected the triggers and the targets for your MSensor link, select "Save" on the top right corner. After selecting "Save" you will need to give a name to the MSensor link.
- After you have entered the name for the MSensor link, select "Create" and the MSensor link information will be stored to the gateway.



Already created MSensor links can be also modified once they have been created.

- To to so, select your MSensor link.
-> In the new window you will see the field "More".

By selecting this field you will see the editing window and can then delete, rename or edit the MSensor link.

MSensor linking

11.3. FAQ MSensor linking

Question	Answer
How many triggers / targets are allowed?	There is no limit defined.
Can I use a trigger / target from a different Line or gateway?	Yes.
My ambient light regulation is active, will those commands also be forwarded?	If you are using the MSensor linking feature no. If you would like to have the light regulation also forwarded you need to create a Logical Area.

Known limitations

The following tables list the known limitations of the two connecDIM Apps - connecDIM Architect and connecDIM Lite.

Devices with limited support	Valid for App	
	Architect	Lite
Because the ready2mains gateway and the basicDIM DGC are special devices, they are displayed as sensors in the apps.	x	x
Because the basicDIM DGC is a special device type, the connecDIM Architect does not support the configuration of scenes for this device. _ If you need to configure a basicDIM DGC, use the Tridonic software masterCONFIGURATOR!	x	
Because the DALI XC is a special device type, the connecDIM Architect does not support the configuration of this device. _ If you need to configure a DALI XC, use the Tridonic software masterCONFIGURATOR!	x	
Scenes with colour information can not be programmed for tunable white devices. _ If you need to program a scene for a tunable white device with a specific colour, use the Tridonic software masterCONFIGURATOR!	x	
If a sensor, tunable white or emergency device is selected as trigger or target for a logical area, control fields for standard driver will be displayed.	x	

Additional information	Valid for App	
	Architect	Lite
With the connecDIM Architect, scenes can only be programmed for DALI circuits with <12 devices. _ If you need circuits with >12 devices, use the Tridonic software masterCONFIGURATOR to program scenes!	x	
If a logical area is created and a group is selected as target or trigger, the devices inside this group will not be shown in the app. Still, it is possible to localize the devices assigned to this group with the control fields.	x	
The gateway may disappear sometimes. Depending on the network traffic, it may happen that the connecDIM gateway disappears from the apps. _ If this happens, refresh the view. _ If this does not help, check the network traffic.	x	x

Known limitations

The app crashes when deleting the MSensor link which is used in an outdated schedule

x

- _ Sometimes it may happen that that the app shows an error if you try to delete an MSensor link which is used in Scheduler
 - _ If this happens, make sure to delete the Scheduler where the MSensor link is used.
-

PHASED OUT

Documentation version history

Date	Version	Comment
5.6.2020	V1.0	First official version

PHASED OUT