Sensors & Controls

connecDIM

Manual

TRIDONIC

Table of Contents

Table of Contents

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 at
http://www.tridonic.com/com/en/operating-instructions.asp

1.1. Copyright

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

1.2. connecDIM Cloud Service

“connecDIM Cloud Service” is a voluntary and free of charge service from Tridonic. It is not part of the Software Product. Tridonic is therefore entitled to change or discontinue the service at any time.

This and other regulations are part of the "End-User License Agreement (EULA) for Tridonic software programs" which can be found at http://www.tridonic.com/eula.

1.3. Imprint

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www.tridonic.com

Safety instructions

The instructions in this section have been compiled to ensure that operators and users of 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 or monitored remotely on the connecDIM cloud.
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 has the professional training and knowledge, especially of the relevant regulations, to be able to assess the tasks he or she has been assigned as well as possible dangers.
- The owner of the emergency lighting system must ensure that no one but authorized trained persons modify any settings of the connecDIM system

The connecDIM System

3.1. 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 or monitored remotely on the connecDIM cloud.
The connecDIM system components can be updated over the web, allowing for a continuously evolving solution.

3.2. System Component Summary

Image	Title	Description
	Cloud	The cloud records and stores information regarding the installation. Changes of lamp state, failures and historical information for energy reporting is recorded and saved on the cloud. The cloud is also able to make updates available to the system components already installed in the field. The cloud can be accessed at www.connecDIM.com and new users can register their own connecDIM cloud account at www.connecDIM.com/register.
	Gateway	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. The gateway allows network control and configuration of the DALI devices connected to the gateway via the connecDIMLite and connecDIMArchitect applications. Data such as scheduling information, time zone, Logical Areas and firmware updates are synchronized between the gateway and the cloud.

3.3. System API

connecDIM supports an API based on the JSON RPC protocol which allows integrating DALI information from the connecDIM gateway for BMS Systems.

If you are interested in the API documentation please contact your local Tridonic office.

3.4. Storage of Data

The connecDIM system collects data and stores it in the cloud. Our storage policy is as follows[1]:

- If the connecDIM system is used in combination with emergency applications, these emergency application data will be stored for a maximum of 24 months[1]. Data older than 24 months[1] will be automatically deleted.
- All other data collected in the cloud will be stored for 3 months[1]. Data older than 3 months[1] will be automatically deleted.

NOTICE

[1] Tridonic keeps the right to change this storage policy or parts of it without prior notice.

The connecDIM System

⚠ CAUTION!

The connecDIM cloud service is a non-real-time application.
The availability of the cloud service, performance, integrity and availability of stored and displayed data in the cloud cannot be guaranteed.
Internet connections, server load and other network issues may influence the correctness of the data or even lead to data loss.

3.5. 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

3.6. BETA Features

connecDIM provides features that are under development. These features are marked as BETA.
The definition of BETA can be found in the terms of use at www.tridonic.com/eula

The following features are BETA:

- Manage Holidays, S. 36 (Site and Country Holidays)
- Energy Performance, S. 37
- Maintenance History, S. 38
- Device History, S. 60 and Device Graph, S. 61
- User Access, S. 76
- Email Alerts, S. 81

Creating your connecDIM Cloud Account

Setup and monitor connecDIM gateways with a connecDIM cloud account.

4.1. connecDIM user types

The connecDIM system has 4 user types

4.1.1. Default User

- Everybody can create an connecDIM account
- Before Tridonic can create a company account with an Primary Account Holder this user has to register as a Default user

4.1.2. Primary Account Holder

- This is the user for whom Tridonic has created his company account.
- This user receives automatically Administrator rights.
- This allows him to create new Sites and to invite other user to his Company Account and also to Sites he has created.

4.1.3. Company user

- Each company has one Primary Account Holder
- To join a company a user must be invited by the Primary Account Holder
- The Primary Account Holder can grant privileges to other members so they can also invite additional users
- Company users can only belong to one company at a time
- Company users can leave a company to join another company

4.1.4. Site user

- Site users have access to an specific site
- They are invited by an Site user with the rights to invite other users
- It isn't necessary to be an Primary Account Holder, Company user or Default user to be invited as Site user

4.2. Creating a connecDIM Cloud User Account

Your connecDIM account will be based on a valid email address which you have access to.
When logged in to the connecDIM cloud account you can monitor and manage multiple DALI installations directly from the cloud.

Creating your connecDIM Cloud Account

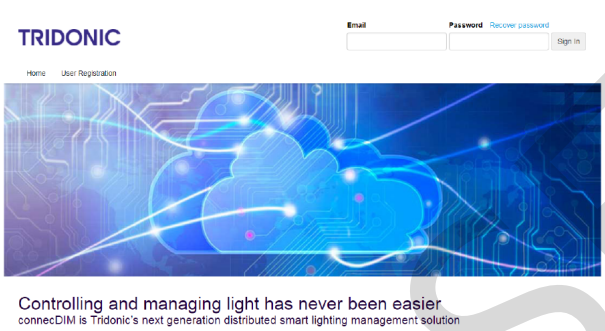
4.3. The connecDIM Cloud Registration Process

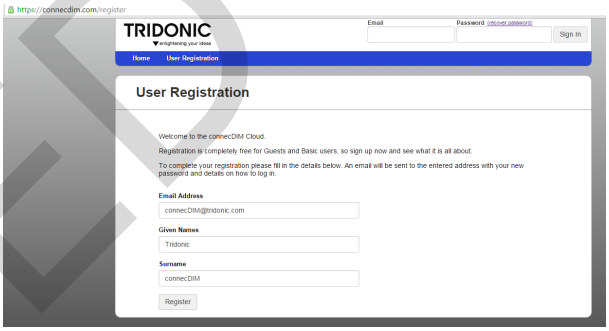
1. Enter your account details including your name and email address
2. Verify your email address by clicking on a link emailed to you
3. Log into the cloud

4.4. Entering Account Details

_ If you already have a connecDIM account log in with your existing email address and password and read from the "Create a New Site" section.
If you have forgotten your password, you can use the recover password link and an email will be sent to you with instructions for recovering your password.

_ Enter your new account details by visiting the account registration page and filling in the form. The connecDIM cloud will request basic information.



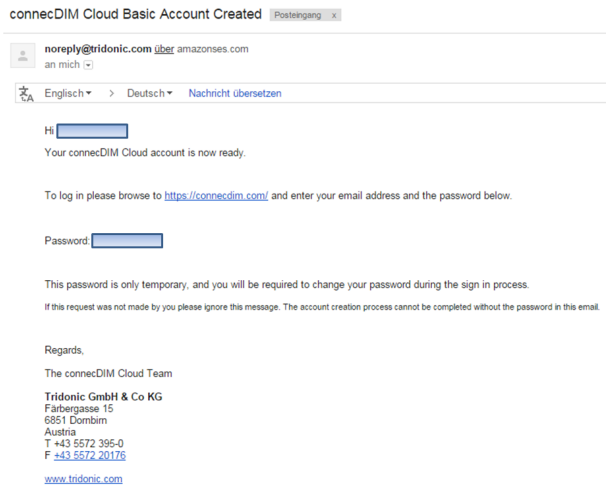


_ Fill in the above fields and press "Register". The connecDIM cloud will send you a verification email.

4.5. Verifying Your Email

The email below will be sent to the email address you entered. You should receive an email from noreply@tridonic.com. If you don't receive an email check your junk email folder.

Creating your connecDIM Cloud Account



connecDIM Cloud Basic Account Created Posteingang x

noreply@tridonic.com über amazonses.com
an mich

Englisch > Deutsch Nachricht übersetzen

Hi [redacted]

Your connecDIM Cloud account is now ready.

To log in please browse to https://connecdim.com/ and enter your email address and the password below.

Password: [redacted]

This password is only temporary, and you will be required to change your password during the sign in process.

If this request was not made by you please ignore this message. The account creation process cannot be completed without the password in this email.

Regards,

The connecDIM Cloud Team

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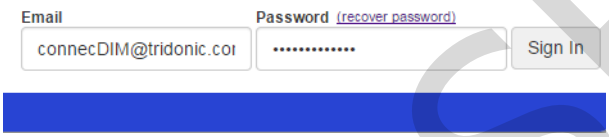
Austria
T +43 5572 395-0
F +43 5572 20176

www.tridonic.com

The email will include a temporary password for logging in to the connecDIM cloud site. If you don't log in to the site with your temporary password within 30 minutes, your user name and account will expire.
The fastest way to enter your temporary password is copying (Cntrl-C) it from the email and pasting (Cntrl-V) it into the password text field.

4.6. Login for the first Time

When you receive your temporary password in the email visit www.connecdim.com and use your email address and the temporary password for your first log in.



After logging into the connecDIM cloud with your temporary password, change the password to a phrase you can remember and start using the connecDIM cloud.

ConnecDIM Company Settings

Once you have purchased connecDIM you have to register for your own company account.

It is not possible to create a company account yourself. To have a new company account created you can contact your local Tridonic sales office with the following information:

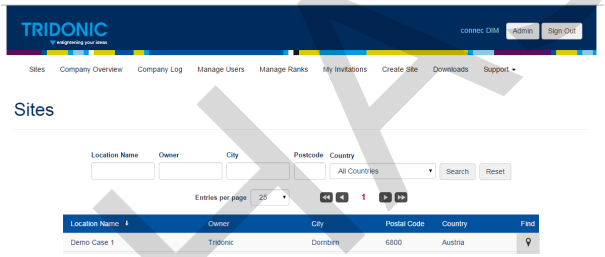
- The name of the company
- The address details of the company, with the following minimum information
  - street address,
  - city,
  - state/region/province,
  - country and postal code
- The email address of the cloud user who will be marked as the primary account holder

Please ensure that you include all the information listed above. It is very important that your user account already exists in the cloud before sending your request. Otherwise the company account cannot be created.

Also note that the user account which is marked as primary account cannot be a guest account. If you wish to use an email address currently associated with a guest account, you can sign in to the cloud, click on your name in the upper right, and then click the "Upgrade to Basic Account" button. After completing the upgrade this user can be changed into a primary account holder.

5.1. Sites

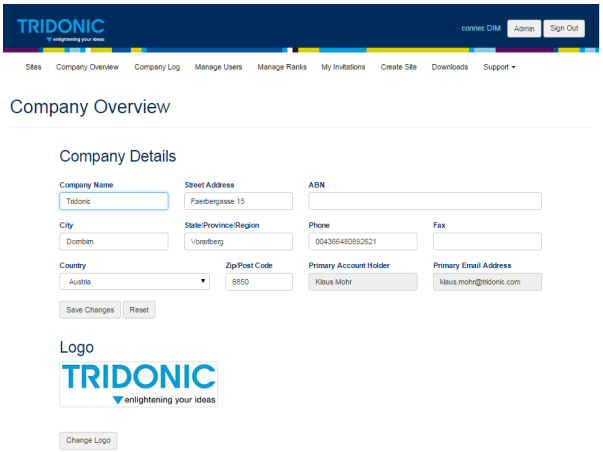
Sites gives you an overview of all the sites your user has been invited to.



5.2. Company Overview

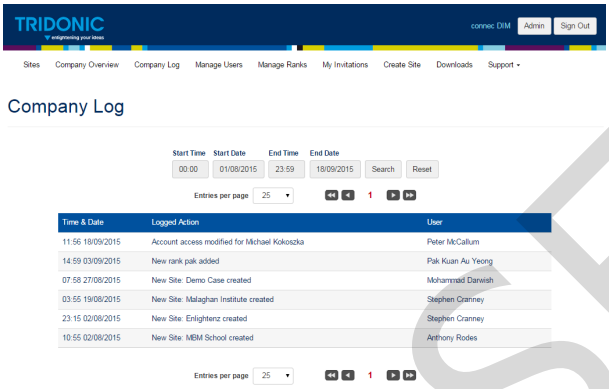
The company overview gives your information about your company and the account holder.

ConnecDIM Company Settings



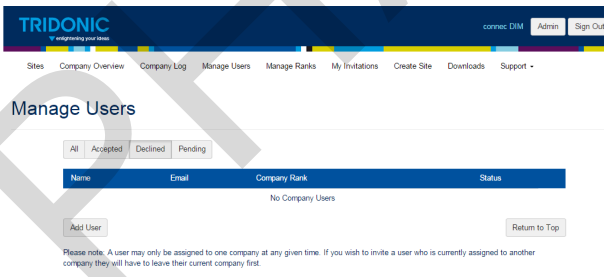
5.3. Company Log

The company log displays the activities that have been logged in your company account, for example about new Sites created.



5.4. Manage Users

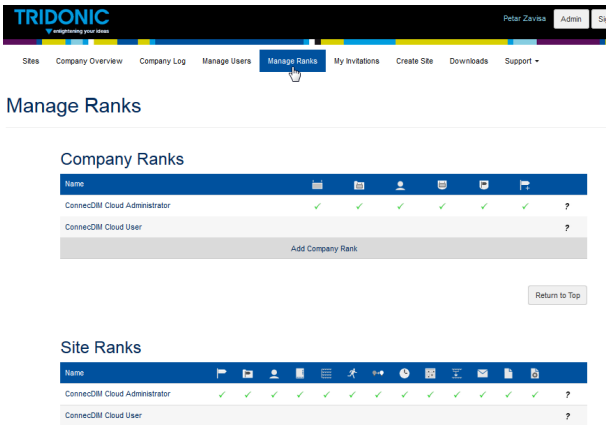
Gives you an overview of existing company users. Also, you can change the company rank or invite new users to your company account.



ConnecDIM Company Settings

5.5. Manage Ranks

The connecDIM provides two default company ranks as well as two default site ranks. These default ranks cannot be modified. But you are able to create and manage your own ranks. These can be assigned to users which will allow them to perform specific functionalities in your sites or your company account.



ConnecDIM Company Settings

5.5.1. Company Rank Icons

Icon	Title	Description
	Manage Company	With this permission set, a user can: _ Edit the company name, address, contact details and other information presented on the "Company Overview" page
	Manage Company Log	With this permission set, a user can: _ View the "Company Log" page
	Manage Users	With this permission set, a user can: _ View the "Manage Users" page _ Invite users to your company account _ Modify the user's Company Rank _ Dismiss users from your company account
	Manage Company Ranks	With this permission set, a user can: _ View the "Manage Ranks" page _ Add new Company Ranks _ Modify the permissions of existing Company Ranks _ Delete existing Company Ranks
	Manage Site Ranks	With this permission set, a user can: _ View the "Manage Ranks" page _ Add new site ranks _ Modify the permissions of existing site ranks _ Delete existing site ranks
	Create Sites	With this permission set, a user can: _ Create new sites within the company

ConnecDIM Company Settings

5.5.2. Site Rank Icons

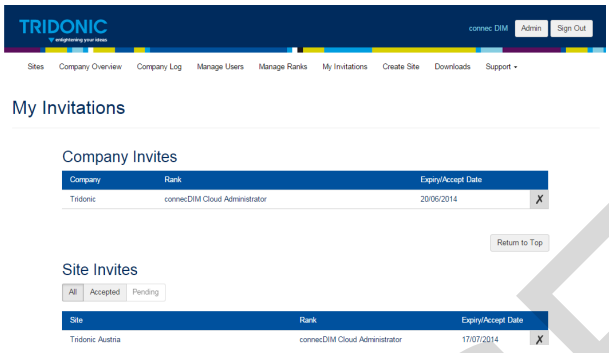
Icon	Title	Description
	Manage Sites	With this permission set, a user can: _ Modify the name and address of the site _ Modify options in the Site Settings _ Change the position of the site marker on the site map in the site details _ Create, modify, and delete control codes
	Manage Site Log	With this permission set, a User can: _ View the site log
	Manage Site Users	With this permission set, a Uuer can: _ Allow and deny other users access to the site _ Manage favourites in the connecDIMLite apps
	Manage Gateways	With this permission set, a user can: _ Modify the name and firmware update status of gateways
	Manage Lines	With this permission set, a user can: _ Modify data for the lines, devices, groups and scenes such as the names and benchmark power values
	Manage Emergency	With this permission set, a user can: _ View and manage installed EM devices _ Schedule emergency tests
	Manage Replacement	With this permission set, a user can: _ Flag devices as having the lamp, ballast, or battery replaced
	Manage Schedules	With this permission set, a user can: _ Create, modify, and delete schedules
	Manage Holidays	With this permission set, a user can: _ Create, modify, and delete holidays
	Manage Logical Areas	With this permission set, a user can: _ Create, modify, and delete logical areas

ConnecDIM Company Settings

	Manage Email Alerts	With this permission set, a user can: _ Create, modify, and delete email alerts
	View Documentation	With this permission set, a user can: _ View and download site documentation
	Manage Documentation	With this permission set, a user can: _ Upload, rename, and remove site documentation

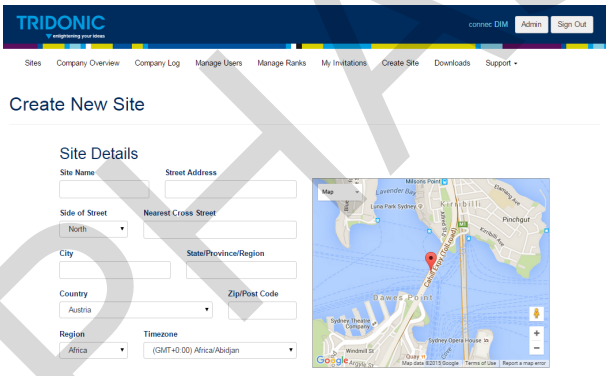
5.6. My invitations

Gives your an overview of your company and site invitations.



5.7. Create Site

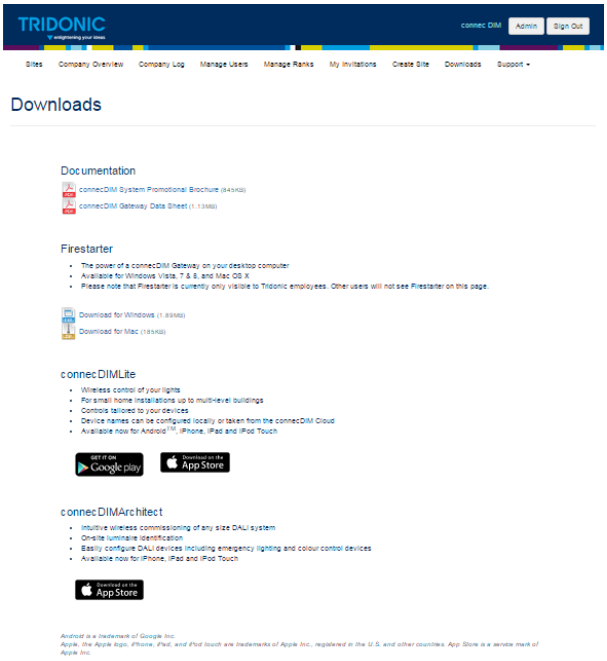
Allows you to create a new site in your company account.



5.8. Download

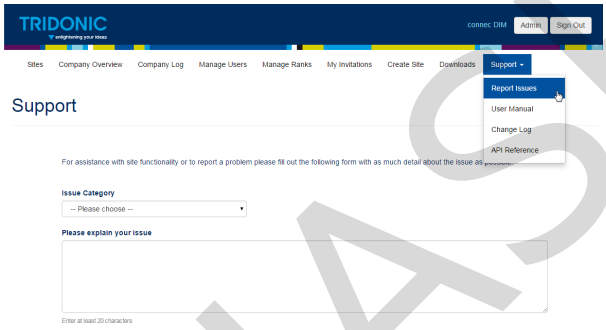
Download useful information like data sheet directly into the cloud.

ConnecDIM Company Settings



5.9. Support

Here you can report issues, read the user manual, see the change log.



Create new Site in the connecDIM Cloud

A DALI site is a physical location or job where a connecDIM system is installed. Each job with a different geographical location is a new site. You can create larger jobs by associating multiple gateways to one site.

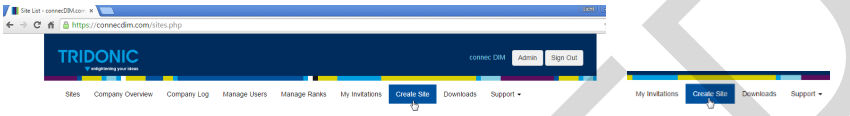
The following three steps will allow you to create your first DALI site:

1. Enter site details
2. Add gateways to the site
3. View and access your site

> **NOTICE**
>
> Only Company users with the right to create Sites are able to create new sites.

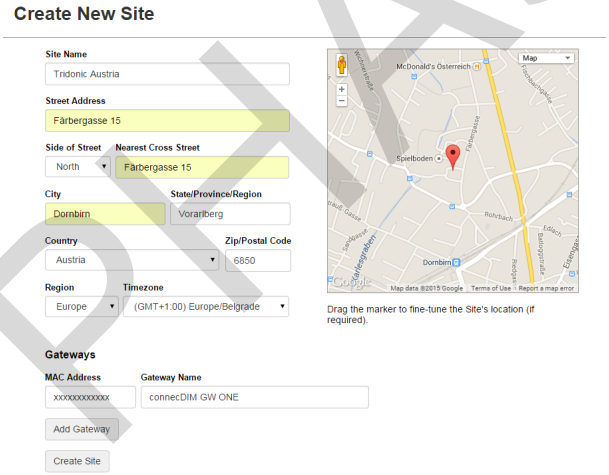
6.1. Enter Site Details

Make sure you are logged in to the connecDIM cloud web site and go to the "Create Site" page.



The information requested will be used locally by the gateway and also on the cloud broken down into the following areas:

1. Site name
2. Site address information
3. Time zone settings



6.1.1. Site Name

The site name is your reference to the site on the cloud. When viewing multiple sites the site name will help you distinguish which site you are viewing at any particular time.

Create new Site in the connecDIM Cloud

6.1.2. Site Address Information

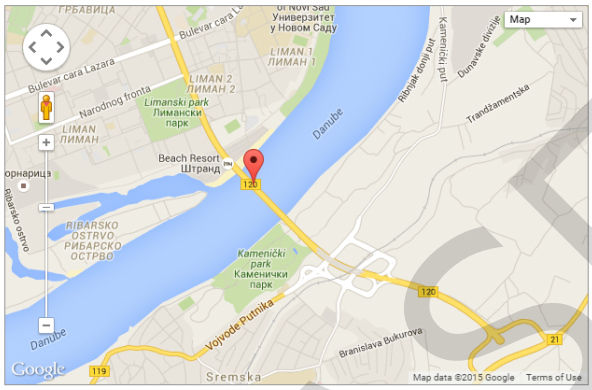
If you are using the connecDIM cloud for emergency lighting the address information will be used on your automatically generated fire safety certificate.

- Enter your site address in the fields shown below.
  The site address is used to calculate sunset and sunrise times of your location.

6.1.3. Fine Tuning Latitude and Longitude

Once the address information is entered into the google map the location shall move showing the resolved geo location of the site.

- If the map doesn't change to the correct location, double check your spelling and make sure the information has been entered correctly.
  For fine tuning the geo location you can drag and drop the map pointer.
  The final position of the map pointer is used to calculate sunrise and sunset schedules for associated sites.



Drag the marker to fine-tune placement of your Site. Click the Save Changes button to remember your settings.

6.1.4. Time Zone Settings

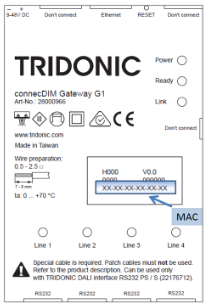
The time zone is used locally by the gateway for running schedules and showing logs and graphs on the connecDIM cloud. Logs and graphs regarding a site are shown in the local time zone of the site.
The gateway will automatically update day light savings based on the time zone.
Daylight savings will be adjusted automatically based on your time zone.

6.2. Add connecDIM Gateways to the Site

- If you have already received your gateway, you can add it to the site by filling in its mac address at the gateways section.
  The gateway's MAC address (which is a 12 digit code) can be found on to the side of the gateway and on the label.

Create new Site in the connecDIM Cloud

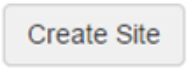
Code on side



Code on label

_ If you have multiple gateways you can give it a gateway name which will help you distinguish it from other gateways.
You can add multiple gateways by pressing the "Add Gateway" button.

Finish adding your new site by pressing the "Create Site" button.



6.3. Replacement of broken Gateways

If a gateway is broken, it can be replaced with a new one. The data from the broken gateway can be transferred to the new one.

NOTICE

Making a backup and restoring data from a backup is only possible if the broken gateway was registered to a site and was online.

If you need to replace a broken gateway, proceed as follows:

_ Contact your local Tridonic support and provide the following information:
Old gateway MAC address, for example "MAC address = 111111111111"
this gateway will be replaced with a new gateway with a different MAC address, for example "MAC address = 222222222222"

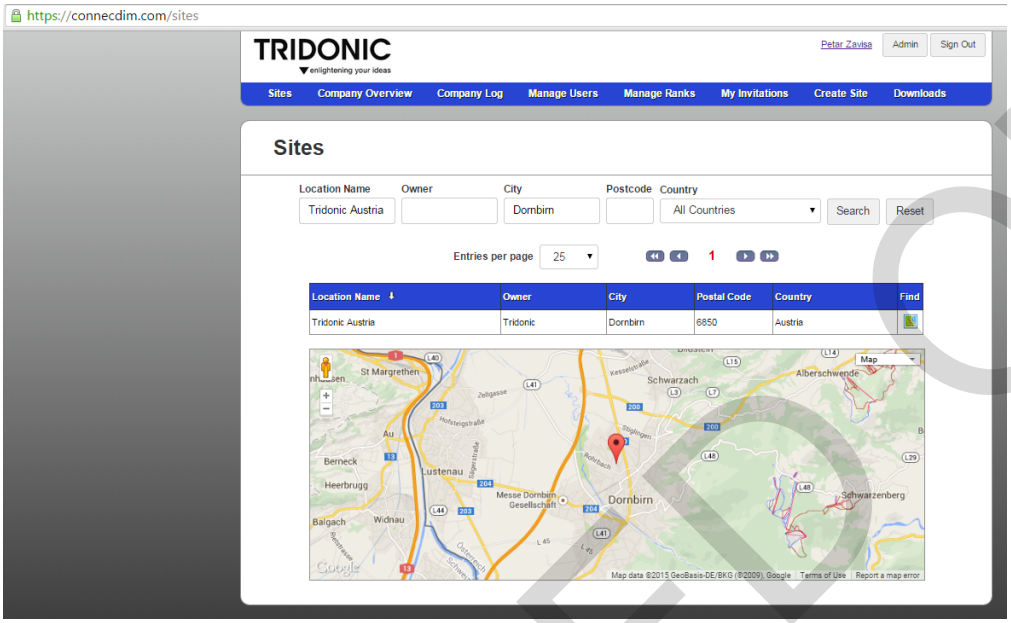
After receiving the data, Tridonic will copy the settings of the broken gateway to the new gateway. For this, it is necessary to do the following:

_ Make sure that the new gateway (in this case: the gateway with "MAC Address = 222222222222") is connected to the cloud and registered to the site.

Create new Site in the connecDIM Cloud

6.4. View and Access Your Site

After your site has been created it will appear in your site list when you log in to the connecDIM cloud. The position of your sites in the map view is marked with a red peg as shown below.
Your sites will be listed with the site name you gave them. From here you can view any site by clicking on it.

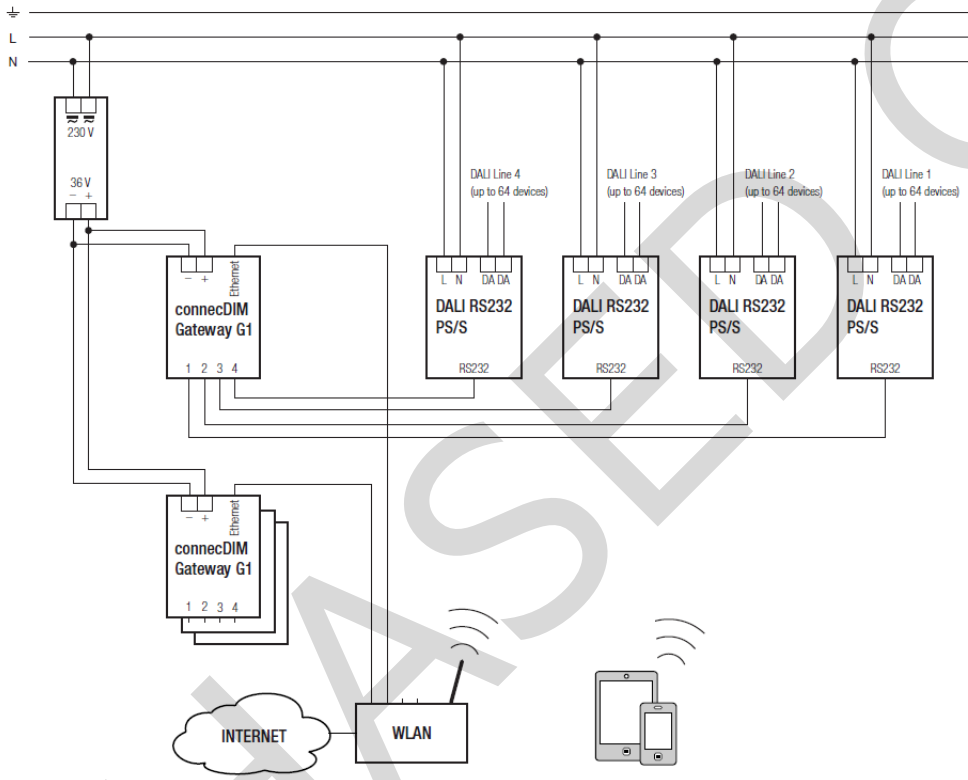


connecDIM Gateway Installation

Installation is as simple as connecting the components to the connecDIM gateway.

7.1. To install a connecDIM gateway you need:

1. connecDIM gateway
2. DALI interface RS232 PS/S
3. connecDIM RS232 cable
4. 9-48V DC power supply
5. Ethernet network or router



7.2. Connect the DALI interface RS232 PS/S

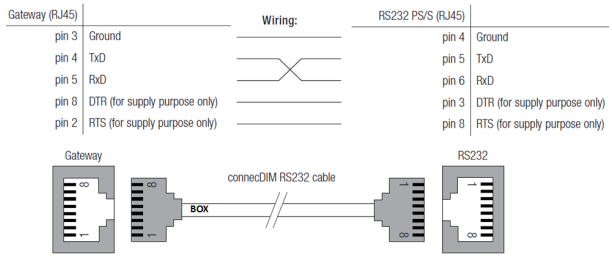
CAUTION!

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

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

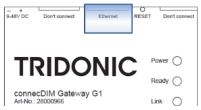
- To connect the connecDIM gateway to the DALI-PS/S use the connecDIM RS232 cable.
- Connect the end of the cable marked with BOX into the connecDIM gateway and the other end into the DALI interface RS232 PS/S.

connecDIM Gateway Installation



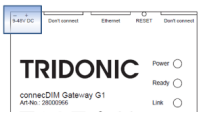
7.3. Connect the Ethernet Network

- 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.



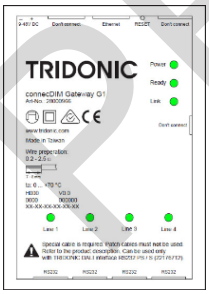
7.4. Connect the DC Power Supply

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".



7.5. Check the Lights and Connections

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



The LED lights have the following meaning

1. Power – the connecDIM gateway has power

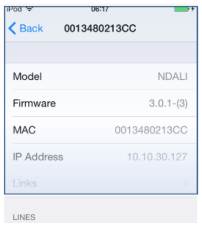
2. Ready – the firmware on the gateway is running
3. Link – the network is working and flashing indicates communication
4. Line 1, 2, 3 & 4 – Communication to the DALI lines

7.6. Ensure the connecDIM Gateway is Visible on the Local Network

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

> **NOTICE**
>
> Performing a broadcast test you need the connecDIMLite or connecDIMArchitect app which can be downloaded in the Apple or in Google app store.

_ Make sure you have a wireless router connecting both the gateway and the Apple/Android device through the ethernet.
_ Run one of the connecDIM apps. 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.



7.7. connecDIM network settings

The connecDIM gateway does not require any incoming ports open which increases security. All communication is from the inside out to the cloud.
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 TCP and/or UDP Port 37 (time synchronization)
_ Outgoing TCP Port 80 (cloud access)
_ Outgoing TCP Port 443 (cloud access encrypted)
_ Outgoing TCP Port 1291 (JSON DALI stream log data)

The destination for these ports it the connecDIM cloud which connects to the following addresses:

Outgoing Logging Server
“data.connecdim.com” => TCP port 1291
“54.72.207.168” => TCP port 1291

Outgoing Timeserver

“54.72.207.168” => TCP/UPD port 37
Gateways with firmware v3.6.0.7 or newer do provide NTP support - and use the TCP/UDP port 123

Outgoing HTTPS Access
“54.77.66.116” => TCP port 443
“www.connecdim.com” => TCP port 443

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

connecDIMLite
The connecDIMLite app requires access to port 80 and 443 to synchronise the names of devices to the DALILite app.

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.

7.7.1. NTP Time Server

Users who do not permanently connect their connecDIM gateways to the cloud can enter their own NTP time server. With this, the connecDIM gateways in the network are synchronized with the users NTP time server.

The default connecDIM time server is 54.72.207.168

It is possible to enter the NTP server separately for every single connecDIM gateway registered to a site or for all connecDIM gateways simultaneously.

Change NTP Server for a single Gateway

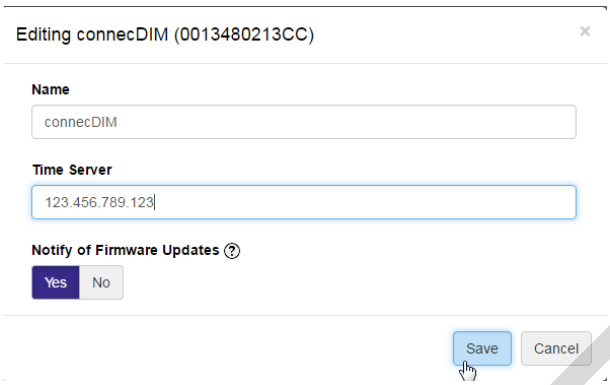
To change the NTP Server for a single connecDIM GW, proceed as follows:

- Go to Hardware > Devices.

- Select Manage Gateway.
  A new window appears.
- Select Edit Details.
  A new window appears.

connecDIM Gateway Installation

_ Enter the NTP time server IP address.

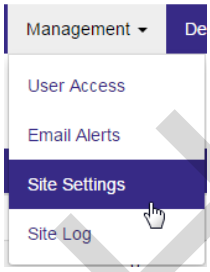


Click Save to save the entered NTP time server.

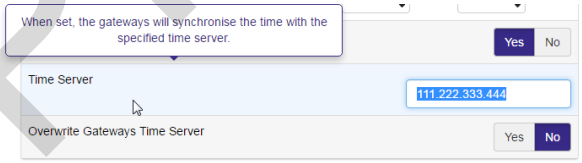
Change the NTP Server for all Gateways registered to a Site

To change the NTP time server for the whole site, proceed as follows:

_ Go to Management > Site Settings



_ Enter the Time Server in the Site Settings.



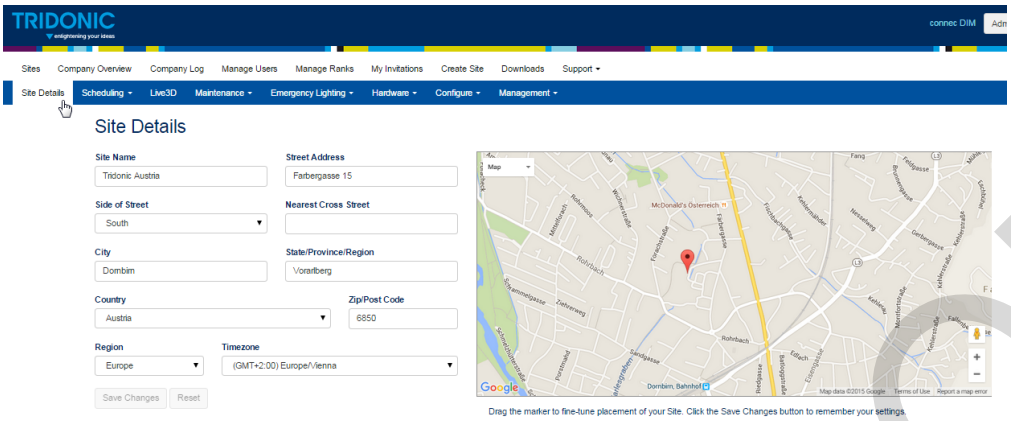
_ Click Overwrite Gateways Time Server to change all gateways NTP time server to the value programmed in the Site Settings.

connecDIM Gateway Installation

connecDIM Site Settings

8.1. connecDIM Site Details

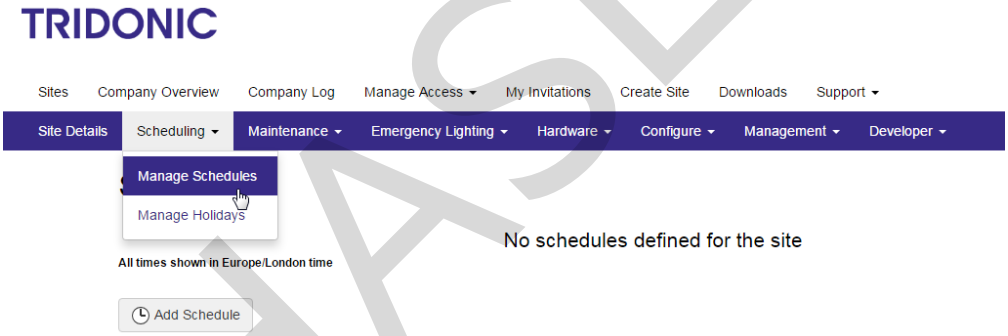
At the site details page information like site name, street address, etc. are displayed and can be changed.



8.2. connecDIM Schedules

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.

8.2.1. Create Schedules



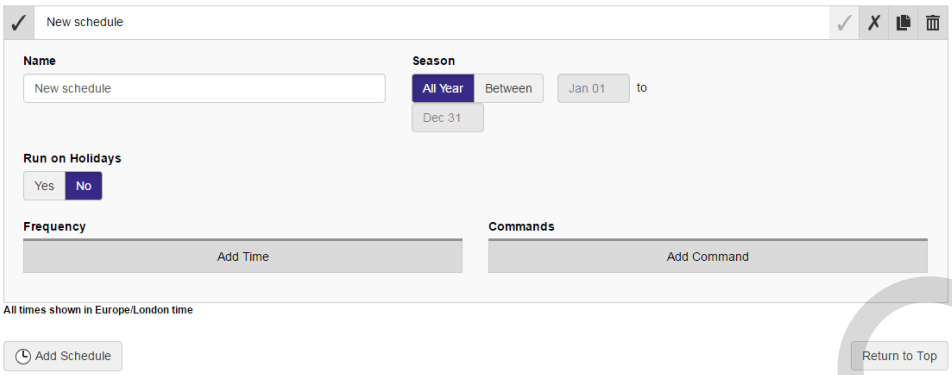
To create a schedule do the following:

- Go to Scheduling
- Select Manage Schedules
- Select Add Schedule
  The Schedules window opens

connecDIM Site Settings

8.2.2. Edit Schedules

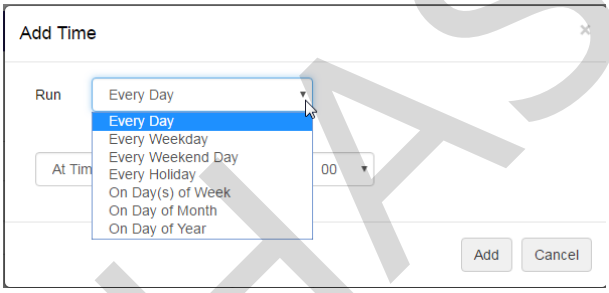
Schedules



In the Schedules window the following settings are available:

- Name: Define a name for the schedule or edit it
- Season: Select season ("season" defines if the schedule will be executed during the whole year or only for a specific time frame of the year)
- Run on Holidays: Select if the schedule will be executed on holidays as well or not
- Frequency: Add the frequency ("frequency" defines when and how often the selected commands will be executed)
- Commands: Select the commands that will be executed

Define Frequency

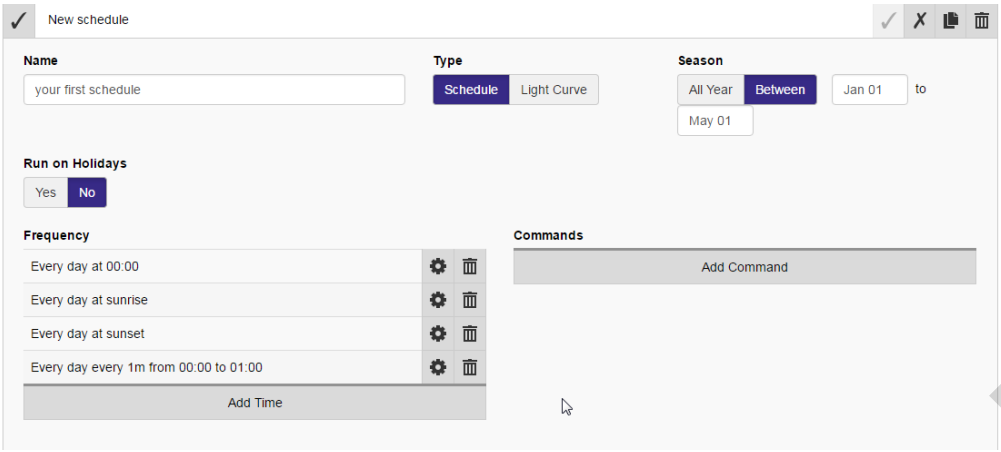


The program comes with some predefined frequencies like "Every Day", "Every Weekday" (see above screenshot).
To select one of these frequencies do the following:

- Click on Add Time
  The Add Time window opens
- Select one of the frequencies from the drop down menu
- Click Add to confirm your selection

It is also possible to define a specific time of the day. Available options include different variants of "Every day at ..." or "Every day from... to...".

connecDIM Site Settings



The following options are available:

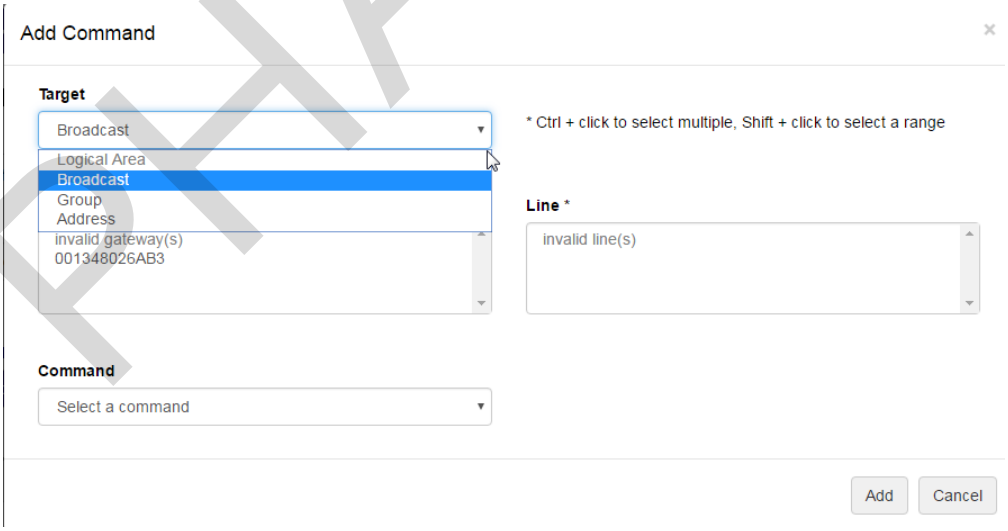
- Click on the edit symbol to edit the selected frequency
- Click on the delete symbol to delete the selected frequency

Add Command

The add command window allows you to select the commands and the target to which they will be sent.

The following targets are available:

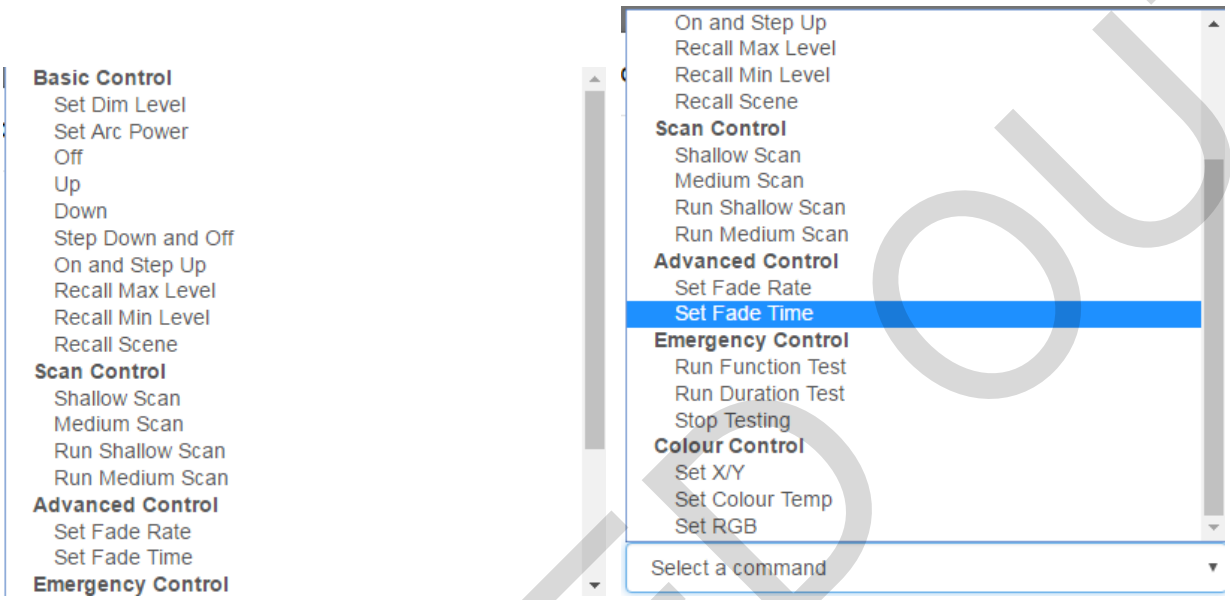
- Logical Area
- Broadcast: The whole DALI line
- Group: The DALI group
- Address: An individual DALI address



The available commands are divided into five main groups:

connecDIM Site Settings

- Basic Control
- Scan Control
- Advanced Control
- Emergency Control
- Colour Control

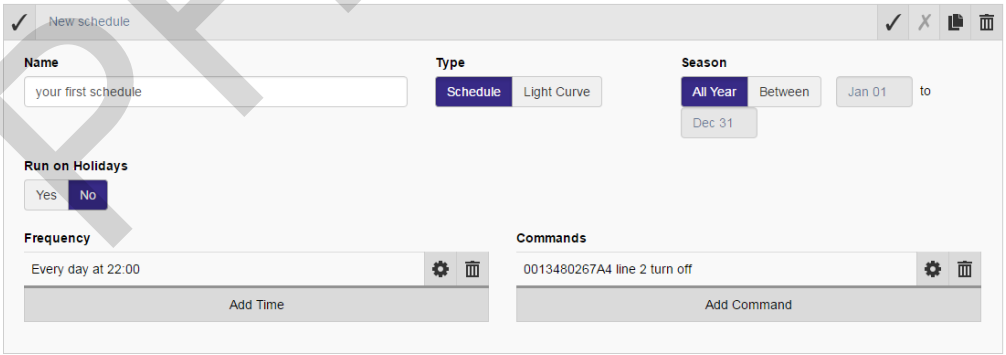


NOTICE

In addition to those commands, it is also possible to select MSensor commands. They are covered at MSensor Schedules, S. 32.

Save Schedule

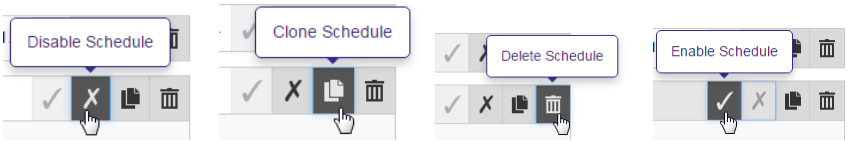
- Click the save icon ✓ at the top of the New Schedule window
- Close the page



Disable, clone, delete, enable Schedule

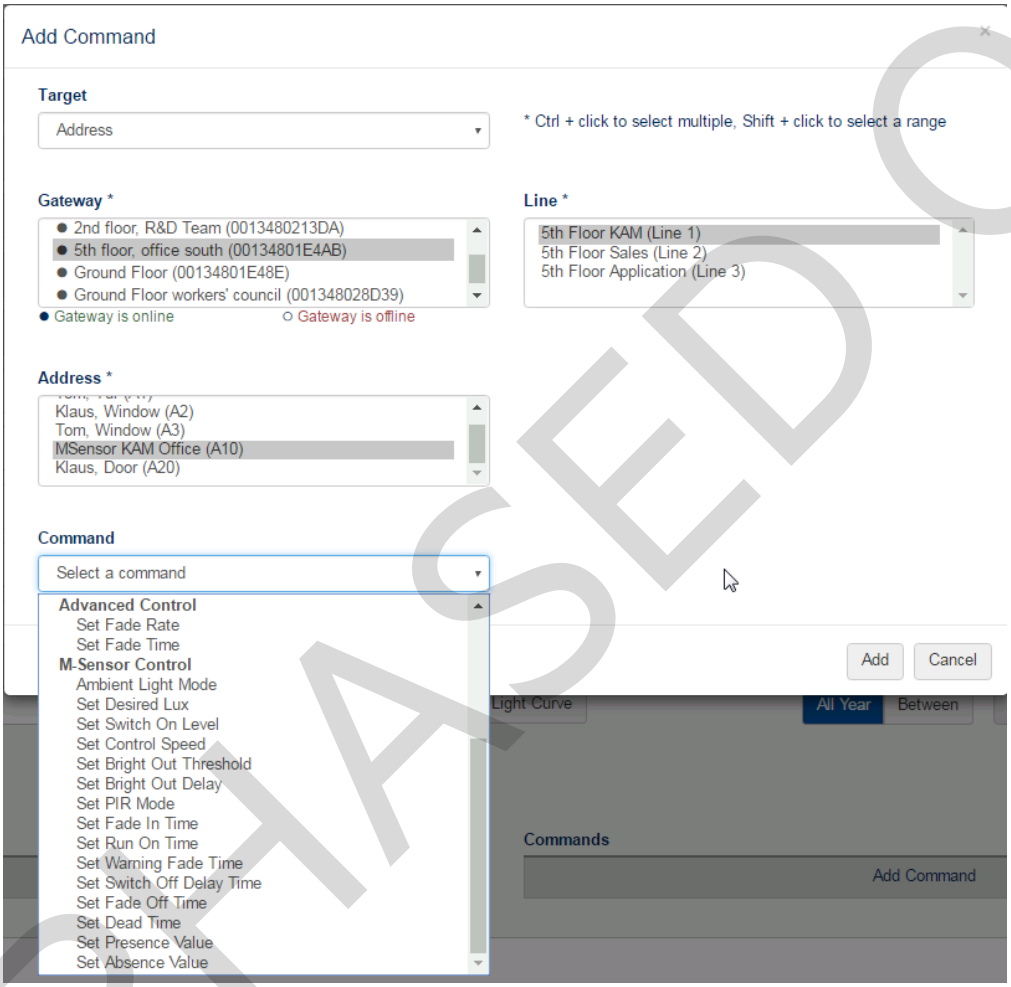
The other icons at the top of the New Schedule window make it possible to disable, clone, delete or enable a schedule.

connecDIM Site Settings



8.2.3. MSensor Schedules

To be able to create schedules for an MSensor you have to select address as Target and also to select the address of the MSensor. Only then the MSensor commands are selectable.



⚠ CAUTION!

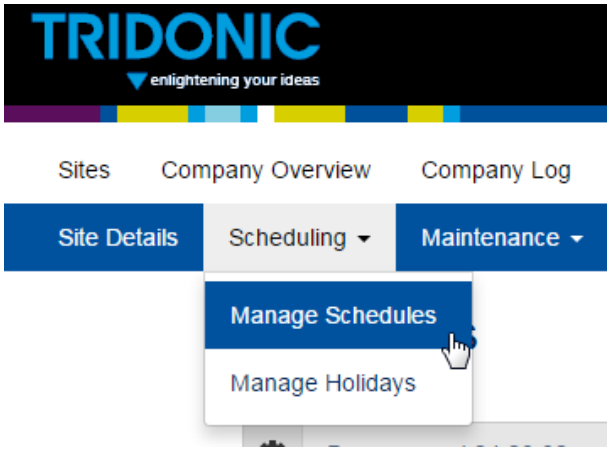
If MSensors are used for Light regulation in a Logical Area the control speed should be set to low. This will reduce the risk of delays in the Logical Area.

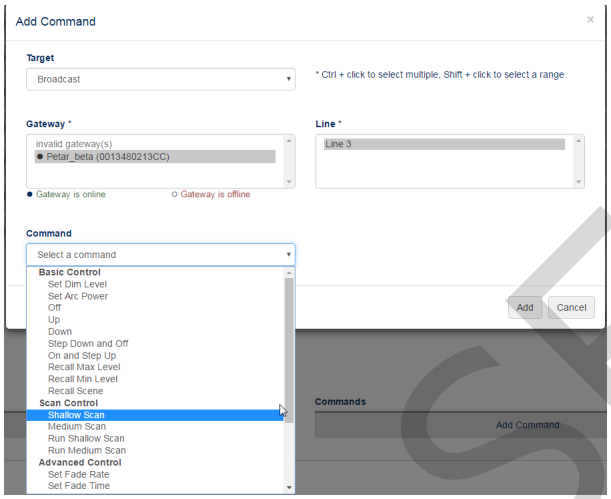
8.2.4. Shallow and Medium scan schedules

The Scheduler offers the opportunity to activate Shallow and Mediums scan for specific times e.g. when nobody is in the installation and the LA will not be triggered by e.g. an DALI XC so it is not important if the delay in the LA occurs.

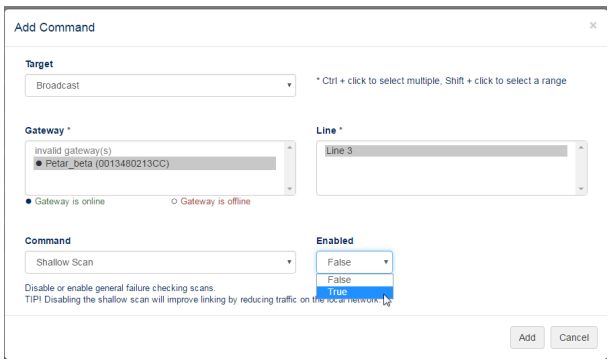
Additional Information regarding the Shallow and Medium Scans can be found in chapter Shallow and Medium Scan, S. 87.

connecDIM Site Settings

Image	Description
	To open the Scheduler menu go to Scheduling / Manage Schedules

	In the new Scheduler select Broadcast as Target
	
	Select the GW where the Trigger is located
	
	Select the Line where the Trigger is located
	
	In the Commands the Scan Control commands are now available.
	
	There are four options
	
	_ Shallow Scan
	  _ The shallow scan will be executed according to the Times programmed in Site Settings
	
	_ Medium Scan
	  _ Medium Scan will be executed according to the Times programmed in Site Settings
	
	_ Run Shallow Scan
	  _ Shallow Scan will be executed according to the programmed time in the Schedule
	
	_ Run Medium Scan
	  _ Medium Scan will be executed according to the programmed time in the Schedule

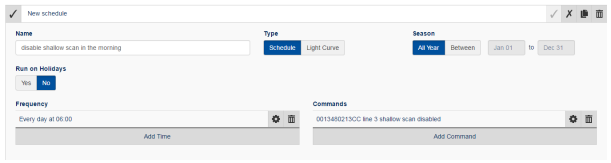
connecDIM Site Settings

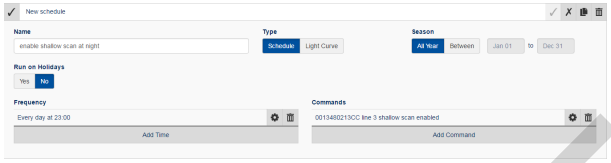


- Shallow Scan
  - The shallow scan will be executed according to the Times programmed in Site Settings

Two options are available:

- True: If True is selected Shallow Scan will be enabled and the times programmed in Site Settings will be activated.
- False: If False is selected Shallow Scan will be disabled for this line





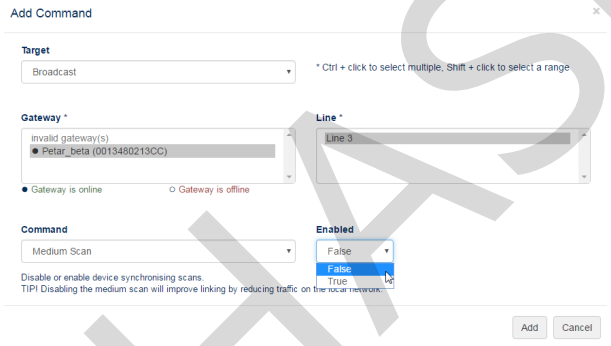
e.g. Shallow Scan is activated to the whole site but you have a LA and do not want to run in a risk to have delays and would like to disable the Shallow Scan during the operating hours

In This case you have to program two Schedules

One with the False Value which will deactivate the Shallow Scan like in this example at 6:00

And one with the True Value to activate the Shallow Scan again in this example at 23:00

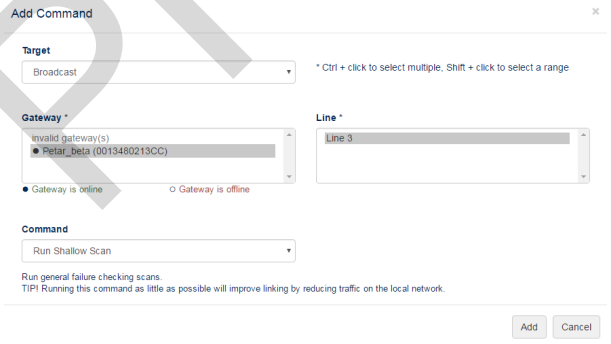
This means that the Shallow Scan will be disabled from 6:00 to 23:00 and it will be activated from 23:00 to 6:00



- Medium Scan
  - Medium Scan will be executed according to the Times programmed in Site Settings

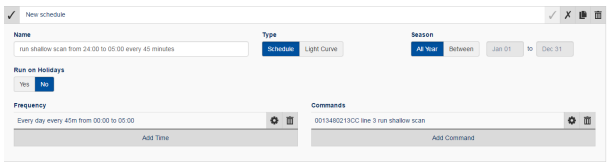
Two options are available True and False:

- If True is selected Medium Scan will be enabled and the times programmed in Site Settings will be activated.
- If False is selected Medium Scan will be disabled for this line

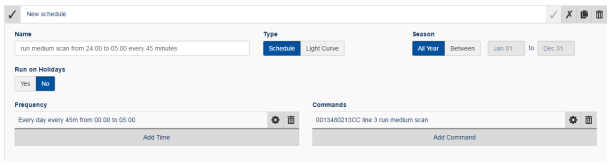


- Run Shallow Scan
  - Shallow Scan will be executed according to the programmed time in the Schedule

connecDIM Site Settings



e.g. like in this example programmed the shallow scan will be executed every 45 minutes between 24:00 to 5:00

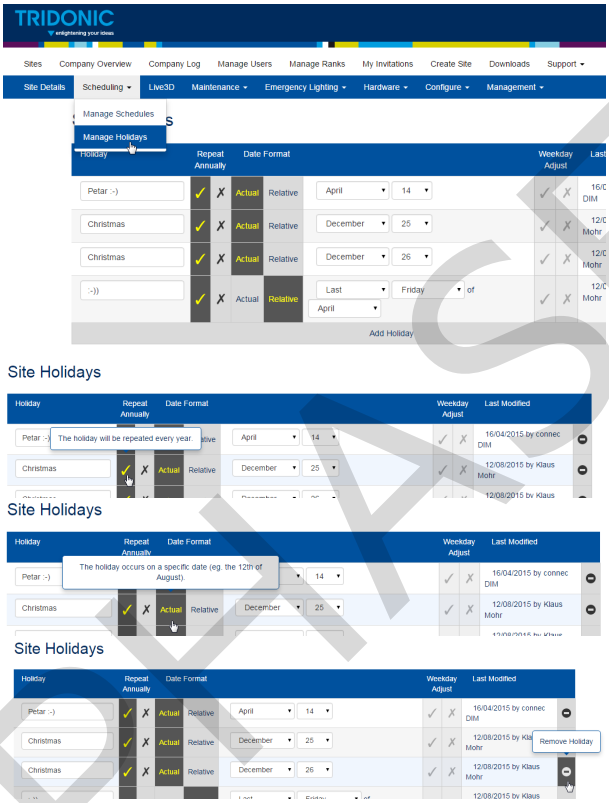


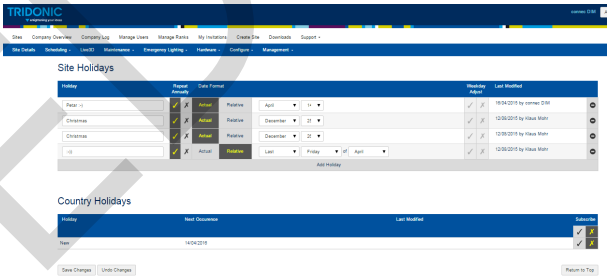
- Run Medium Scan
  - Medium Scan will be executed according to the programmed time in the Schedule

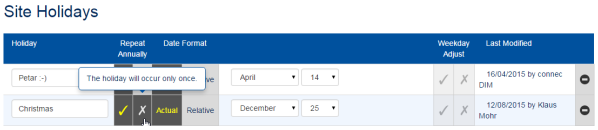
In this example the medium scan will be executed every 45 minutes between 24:00 and 5:00

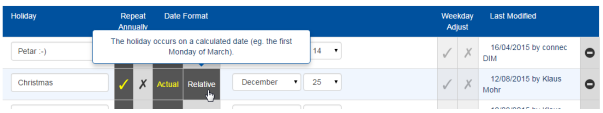
8.2.5. Manage Holidays BETA

Select Scheduling > Manage Holidays. You can program site holidays for each site and also select country holidays.





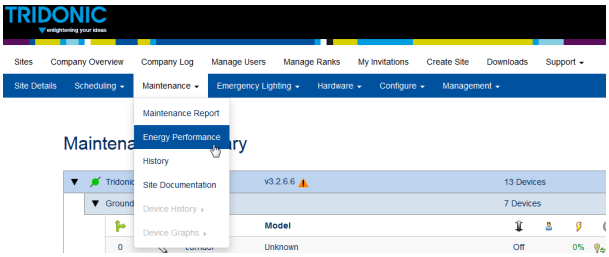




8.3. Maintenance

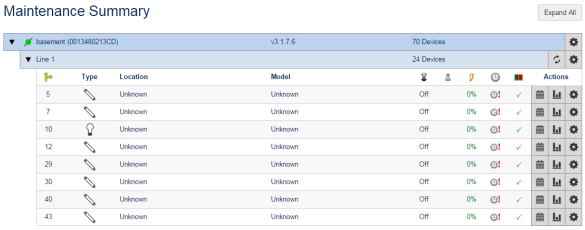
The maintenance window displays maintenance report, history, site documentation, device history and device graphs.

connecDIM Site Settings



8.3.1. Maintenance Summary

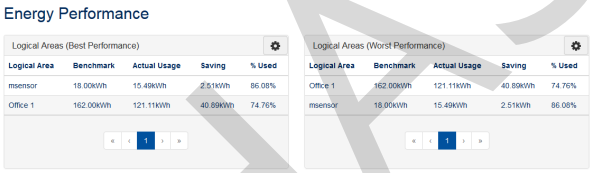
Select Maintenance > Maintenance Summary.
In maintenance summary devices with predictive maintenance warnings are visible. More information about predictive warnings can be found at Predictive Maintenance Warnings, S. 96.



8.3.2. Energy Performance BETA

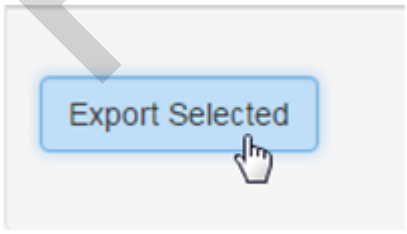
Energy Performance represents a way to compare the energy consumption in different areas of your building.

- Create the Logical Area that will be monitored. (For energy monitoring the Logical Area can be created without a trigger.) How Logical Areas are created, is explained at Logical Areas, S. 69.
  Once you have created a Logical Area, you will receive an overview of best and worst performance Logical Areas.



The results of best and worst performance Logical Areas can be downloaded as a .csv file.

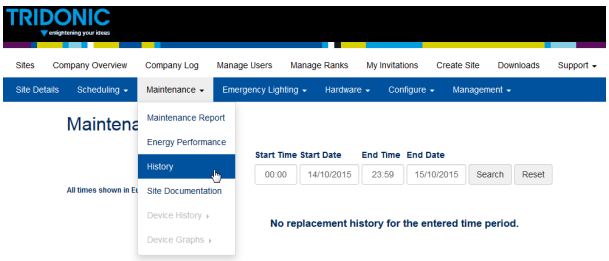
- Select the Logical Areas from which the report should be downloaded.
- Click the button Export Selected.



connecDIM Site Settings

8.3.3. Maintenance History BETA

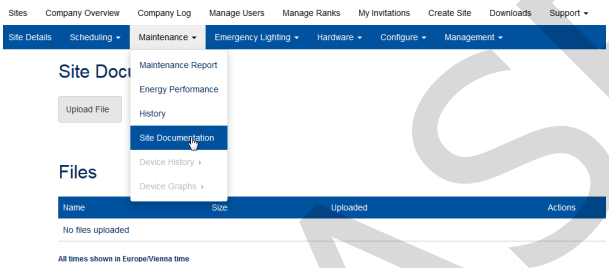
Select Maintenance > History to see the maintenance history window. Maintenance history displays if lamp/ballast/driver replacements have been made.



8.3.4. Site Documentation

> **CAUTION!**
>
> Files with a file name longer than 100 letters or a size more thatn 4 MB are not supported.

Select Maintenance > Site Documentation. This is the place where you can save your installation plans and other important documents related to your site.



8.4. Emergency Lighting

8.4.1. 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.

8.4.2. Prerequisites

The user should have a DALI emergency light wired and connected to a connecDIM gateway with internet access. The user should also have set up a connecDIM cloud site with the gateway attached.

connecDIM Site Settings

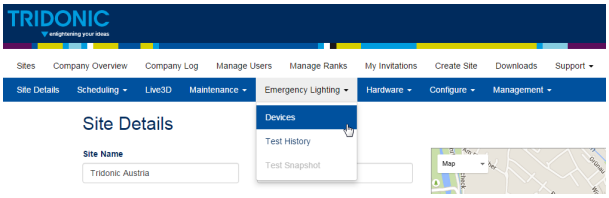
8.4.3. Emergency Lighting

The connecDIM cloud enables a user to monitor and schedule emergency lights through the cloud.

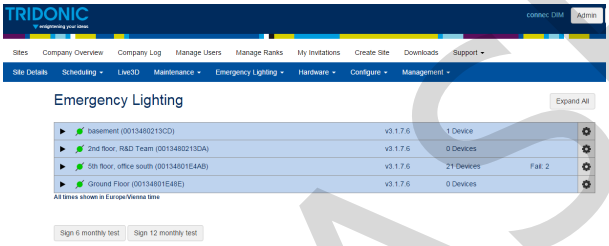
Emergency lights automatically appear in the "Devices" and "Emergency Lighting" windows on the cloud.

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

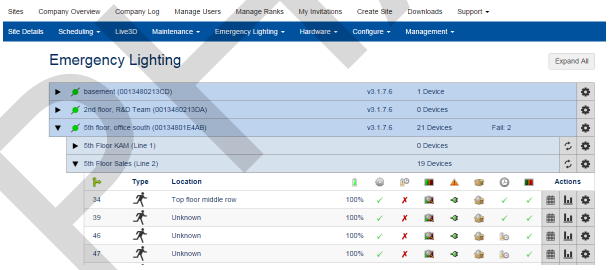
The Emergency Lighting window shows all DALI emergency devices and additionally shows DALI device type 1 emergency data fields.



All DALI emergency devices must be DALI addressed. They will appear automatically in the Emergency Lighting window and give an overview of all installed emergency devices for the site.

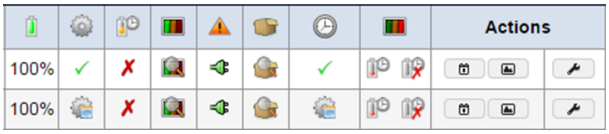


Location and model can be entered manually by the user with the Manage device icon.

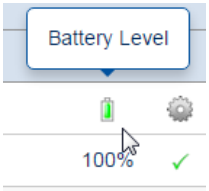


Other shown fields indicate battery level, function test results, duration test results, emergency status, device mode and features. These settings are read and displayed directly from the DALI settings in the fitting.

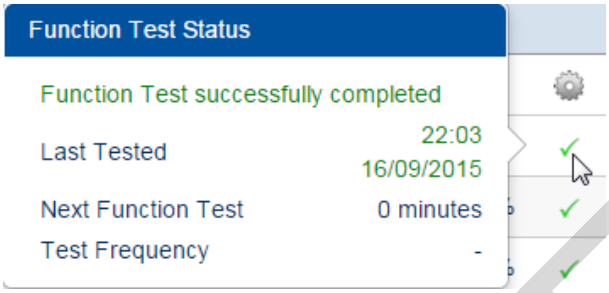
connecDIM Site Settings



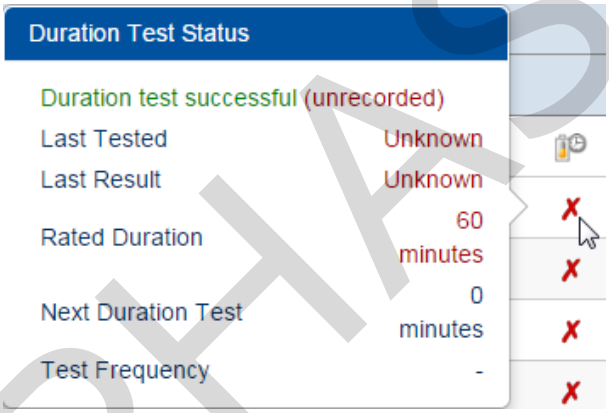
Battery Level



Function Test Status

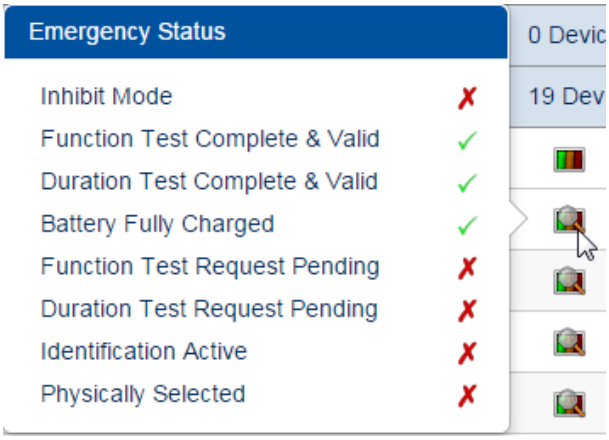


Duration Test Status

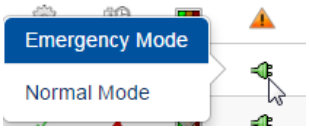


connecDIM Site Settings

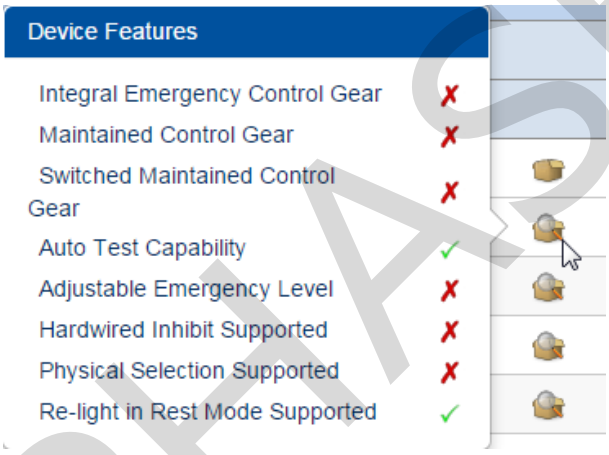
Emergency Status



Emergency Mode



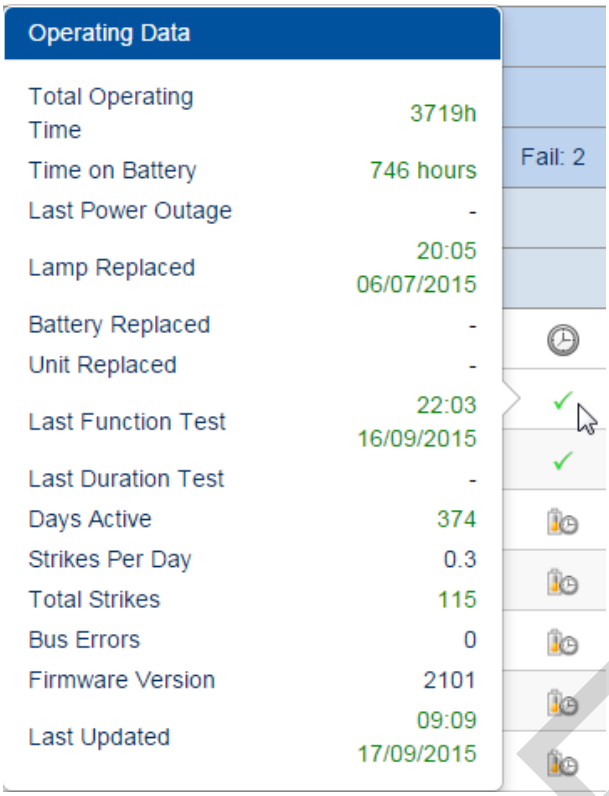
Device Features



connecDIM Site Settings

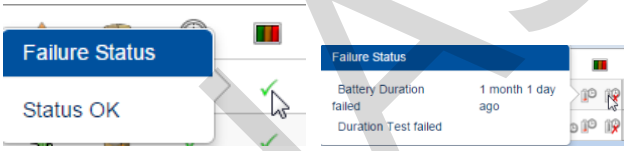
Operating Data

Operation data shows historical information for the device



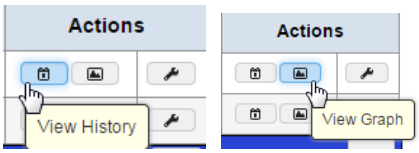
Failure Status

Failure status field displays if the device is ok or not



8.4.4. Actions

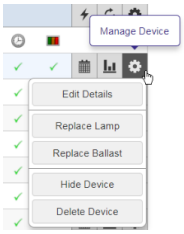
The View History and View Graph buttons show historical information and graph information recorded about the device. These pieces of information are logged any time there is a change in battery level or device status. If there is no change, the device will log every four hours to confirm the device is still reporting. For more information about the View History and View Graph windows see Actions, S. 59.



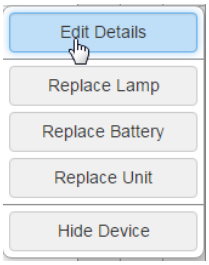
connecDIM Site Settings

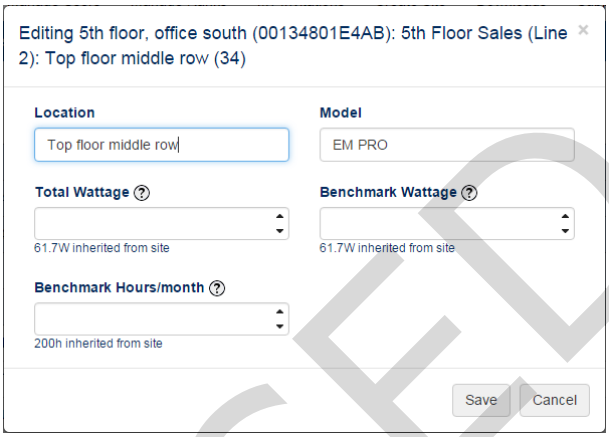
8.4.5. Manage Device

Using the Manage Device button, you can record every maintenance event. Maintenance events are the replacement of the unit, a lamp or a battery. The replacement information will automatically update in the operational data and device logs.

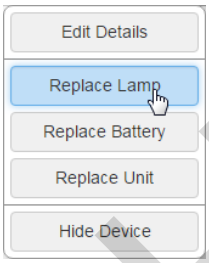


Edit Details





Replace Lamp

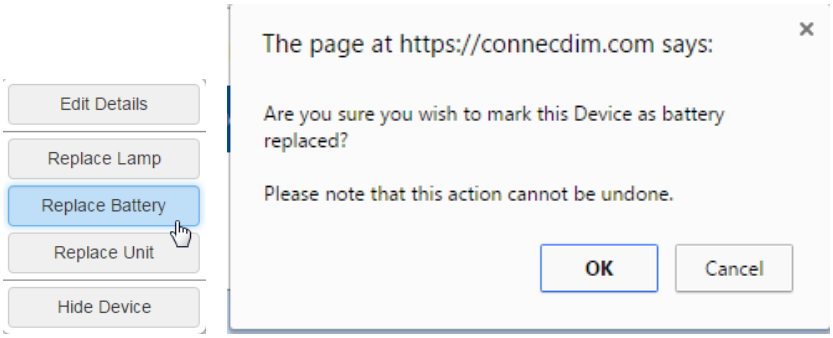


NOTICE

The **Replace Lamp** command will not reset the hours stored on the physical device. It will create a time stamp in the operating data so it is visible that the unit was replaced and the Strikes per day counter will be reset to = 0

connecDIM Site Settings

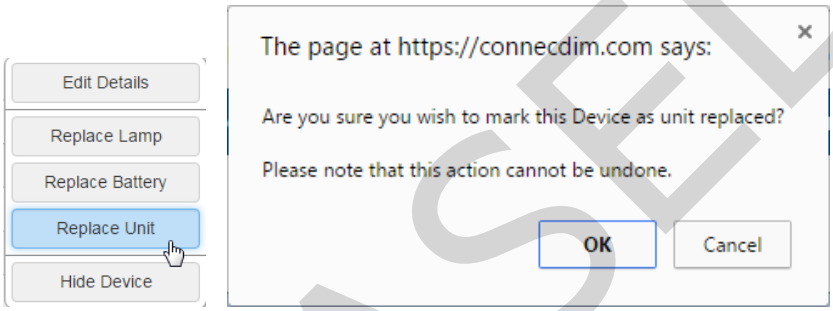
Replace Battery



NOTICE

The **Replace Battery** command will not reset the time on battery stored on the physical device. It will create a time stamp in the operating data so it is visible that the battery was replaced.
The time on battery value will not be changed by this. If a driver has had a time on battery value of 100 hours, it will still be 100 hours after replacing the battery.

Replace Unit

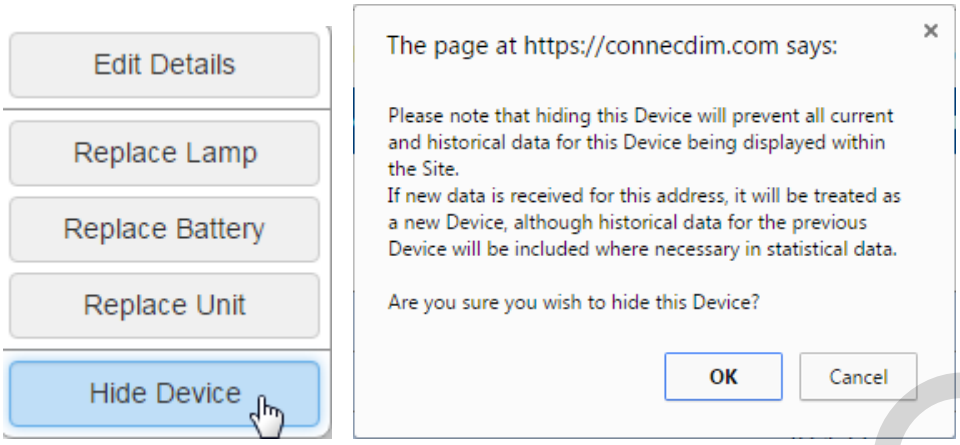


NOTICE

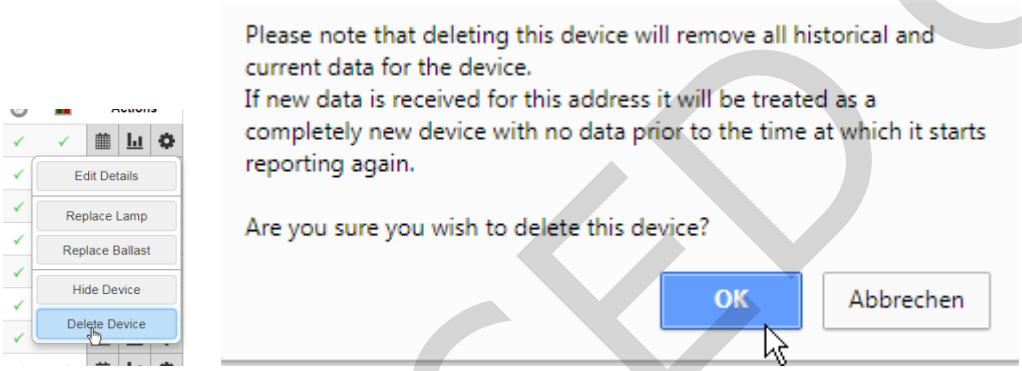
The **Replace Unit** command will not reset the values stored on the physical device. It will create a time stamp in the operating data so it is visible that the unit was replaced and Active Days, Operating Time will be set to = 0

connecDIM Site Settings

Hide Device



Delete Device

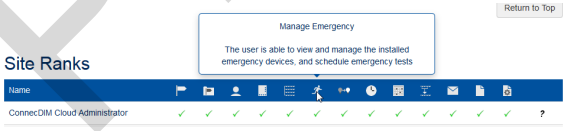


8.4.6. Predictive maintenance warnings

Go to Management > Site Settings to set up predictive maintenance warnings. More information can be found at Operating Data and Predictive Maintenance Icons, S. 58 and Predictive Maintenance Warnings, S. 96.

8.4.7. Scheduling an Emergency Test

To be able to schedule emergency tests, you need to have the site rank Manage Emergency active. This can be set up in the site rank's settings.



Once you have this right, select Scheduling > Manage Schedules.

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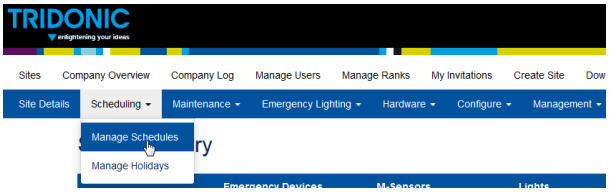
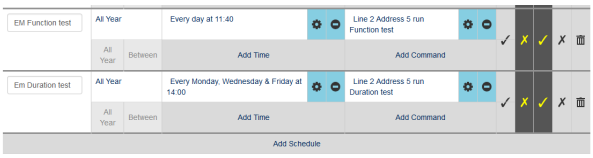


Now you can create a scheduler for a function or duration test.

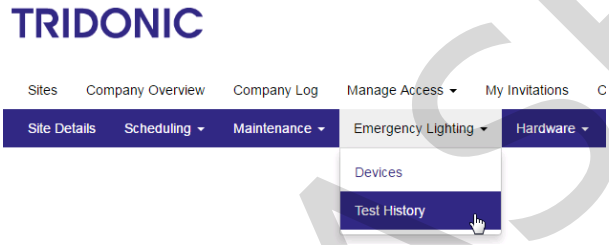


NOTICE

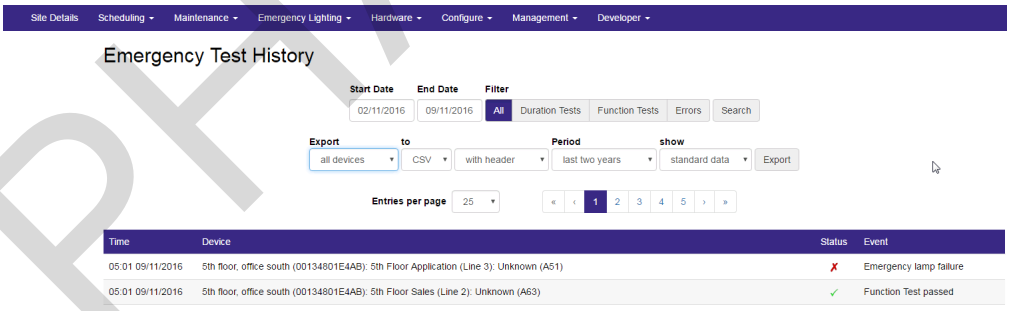
The commands for scheduling an emergency test will only appear if you have the right to manage emergency and if emergency devices are connected to the line you are creating the scheduler for.

8.4.8. Download Emergency test results report

To download a document with the latest test results from the cloud, go to Emergency Lighting > Test History.



Once the Emergency Test History site is loaded, you can download the test results.



The following settings are optional, Start and end date. It is possible to select only duration test should be displayed, or function tests should be displayed, or errors should be displayed, or all results should be displayed.

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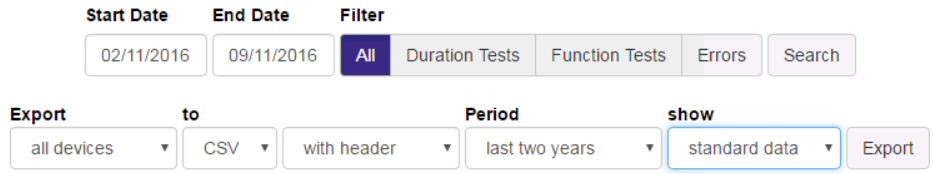
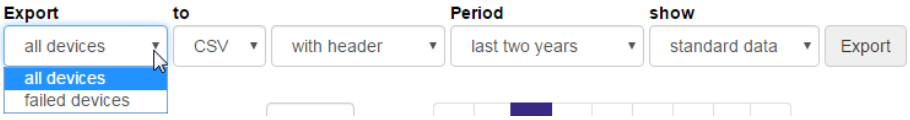
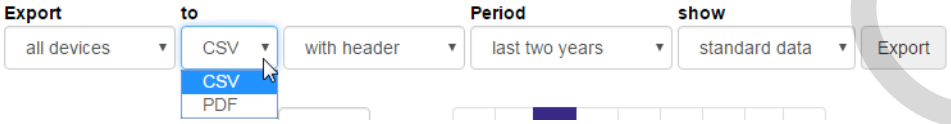


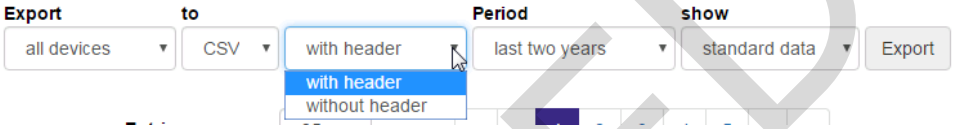
The data can be exported for all devices or only for failed devices.



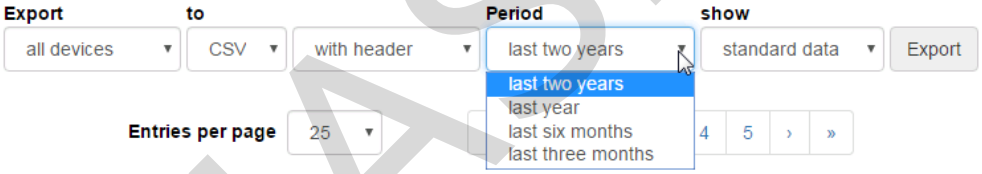
The format selected can be CSV or PDF.



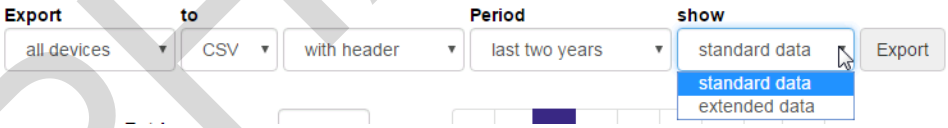
If needed a header can be added.



The Period can be selected from the drop down menu. The available options range from "two years" (maximum time frame) to "last three months" (minimum).



The "show" parameter allows to select between "standard data" and "extended data".



If "standard data" is selected, the following data is included.

- Site
- IP Address
- Gateway Name
- Gateway MAC Address
- Line Name
- Line Number

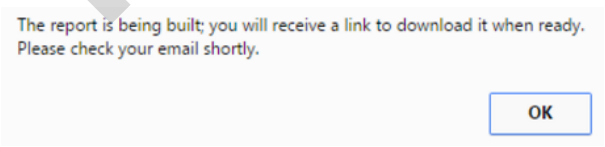
connecDIM Site Settings

- Location
- Address
- Date
- Test Type
- Status
- Event
- Download Time

If "extended data" is selected, the following data is included.

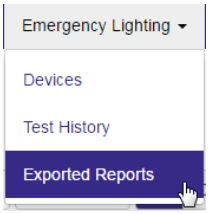
- Site
- IP Address
- Gateway Name
- Gateway MAC Address
- Line Name
- Line Number
- Location
- Address
- Model
- DALI Group Names
- DALI Group Numbers
- Date
- Test Type
- Status
- Event
- DALI Emergency Mode
- DALI Emergency Mode [hex]
- DALI Emergency Status
- DALI Emergency Status [hex]
- DALI Emergency Failure Status
- DALI Emergency Failure Status [hex]
- Download Time

Once you have selected all data, you need to select Export. A new window will appear with a message that the report is being built and that you will receive a link via e-mail.



All created Emergency Reports are stored in the cloud and can be downloaded from the page Emergency Lighting > Exported Reports

connecDIM Site Settings

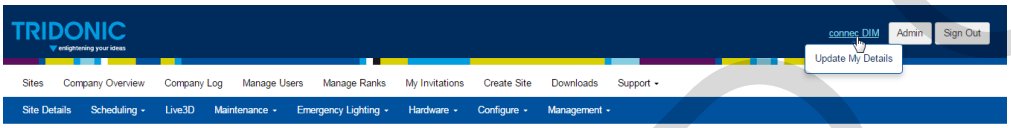


The following image shows an example of how your report may look like.

Annotation: extended data														
Site	IP Address	Gateway Name	Gateway MAC Address	Line Name	Line Number	Location	Address	Model	DALI Group Names	DALI Group Numbers	Date	Test Type	Status	Event
Techsales Live	192.168.0.51	Petar Live	001348028D62	Line one	1	Unknown	35	Unknown			09.11.2016 16:57	Communication Test	fail	Communication test fail
Techsales Live	192.168.0.51	Petar Live	001348028D62		1	Unknown	35	Unknown			08.11.2016 16:57	Communication Test	fail	Communication test fail
Techsales Live	192.168.0.51	Petar Live	001348028D62		1	Unknown	35	Unknown			07.11.2016 16:57	Communication Test	fail	Communication test fail
Techsales Live	192.168.0.51	Petar Live	001348028D62		1	Unknown	35	Unknown			06.11.2016 16:57	Communication Test	fail	Communication test fail

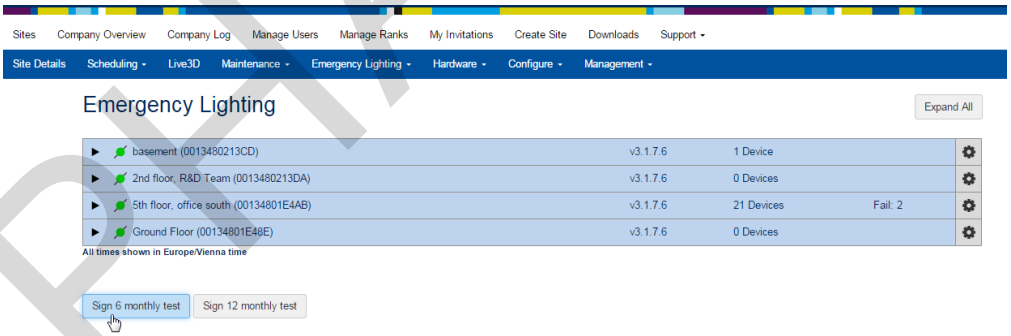
8.4.9. Sign Emergency test (only for Australia and New Zealand)

To create an official emergency test report, your account must have electrician status. To apply for electrician status, click on your name after signing into the cloud to access your user profile.



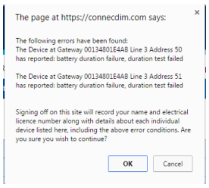
In your profile's settings there is the option to "Apply for Electrician Status". To complete this form, you will need your electrician license number and a scanned image of your license.

Once you apply for electrician status, one of the company admins must approve your request. Once your request receives approval, you will see the options "Sign 6 monthly test" or "Sign 12 monthly test" in the Emergency Lighting page.

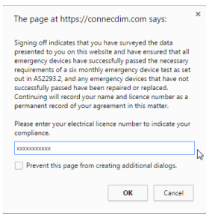


Once you have selected "Sign 6 monthly test" or "Sign 12 monthly test", you will be asked to confirm your selection.

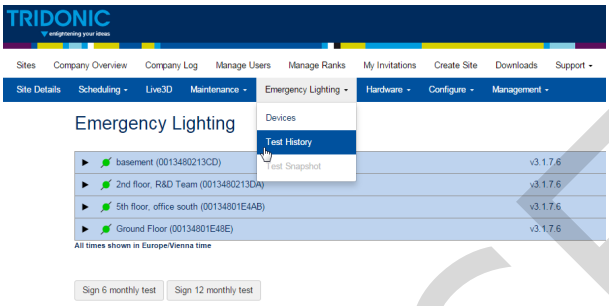
connecDIM Site Settings



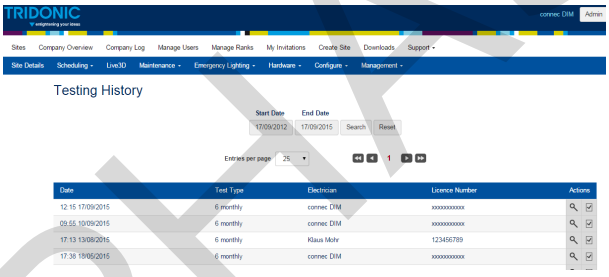
Once you have selected OK, you will have to fill in your electrical license number.



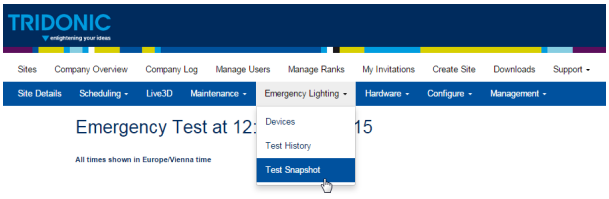
To see the test result, select Emergency Lighting > Test History.



Testing History shows all the previous tests.



Select view device status at time of testing. To see the test snapshot, you will be forwarded to Emergency Lighting > Test Snapshot.



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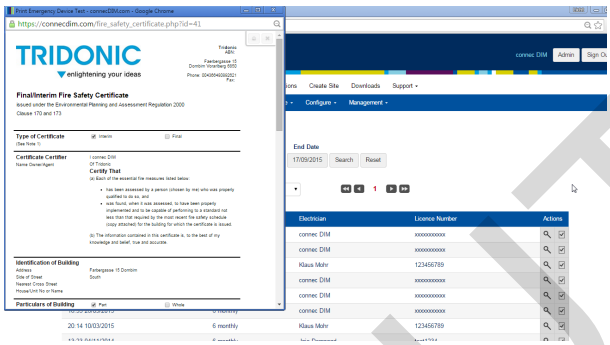
For a test report, select print fire safety certificate.

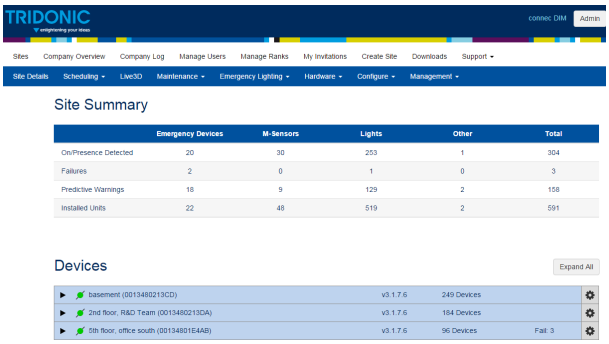


connecDIM Site Settings

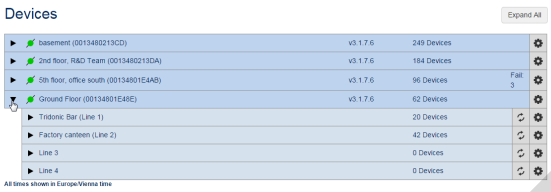
8.5. Hardware

8.5.1. Devices

Select Hardware > Devices. You will see the Site Summary and the devices connected to your site.

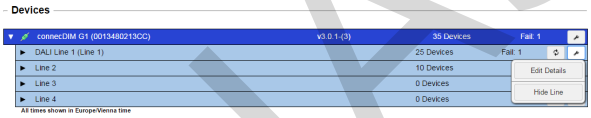


To expand the gateway and see the devices connected, select the triangle.

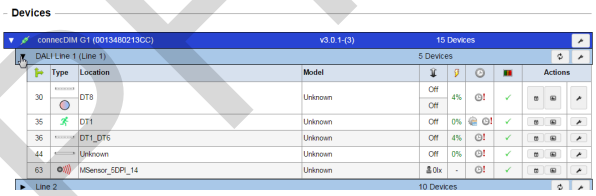


Select the wrench symbol on the right to manage the gateway.

Select the wrench symbol on the right to manage the line or to hide the line.



Select the triangle on the left side to expand the line. You will see all the devices connected to the line.



In the Devices menu the following information is displayed:
Address, Type (Device Type), Location, Model, Dim Level, Presence and Lux, Energy Usage (), Operating Data, Failure Status.
By moving your mouse over the icons/fields you will get additional information.

Address shows the DALI short address from the device.

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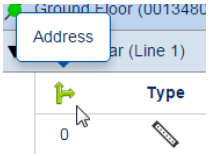
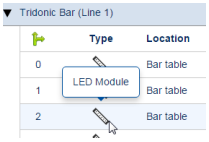


DALI has multiple device types. Type shows the DALI Device type.



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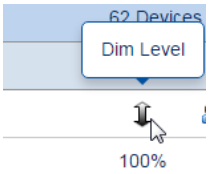
8.5.2. DALI Device Type Icons

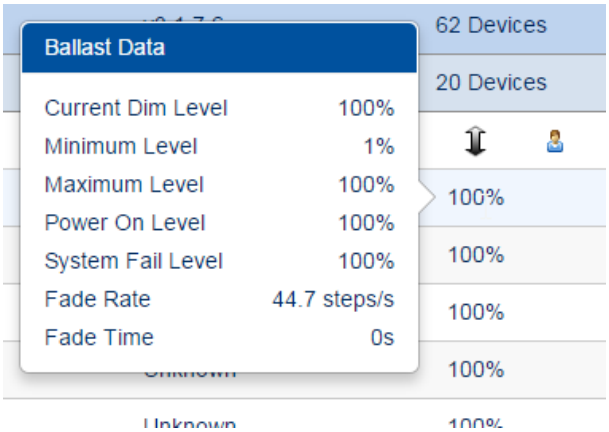
Icon	DALI Device Type
	1-10V Interface Converter
	Colour Control
	Dimmable Incandescent
	Downlight
	Emergency Device
	Fluorescent Ballast
	HID Lamp
	LED
	M-Sensor
	Sequencer
	Switching Function

Dim Level shows the actual dim level (intensity of light in percent)

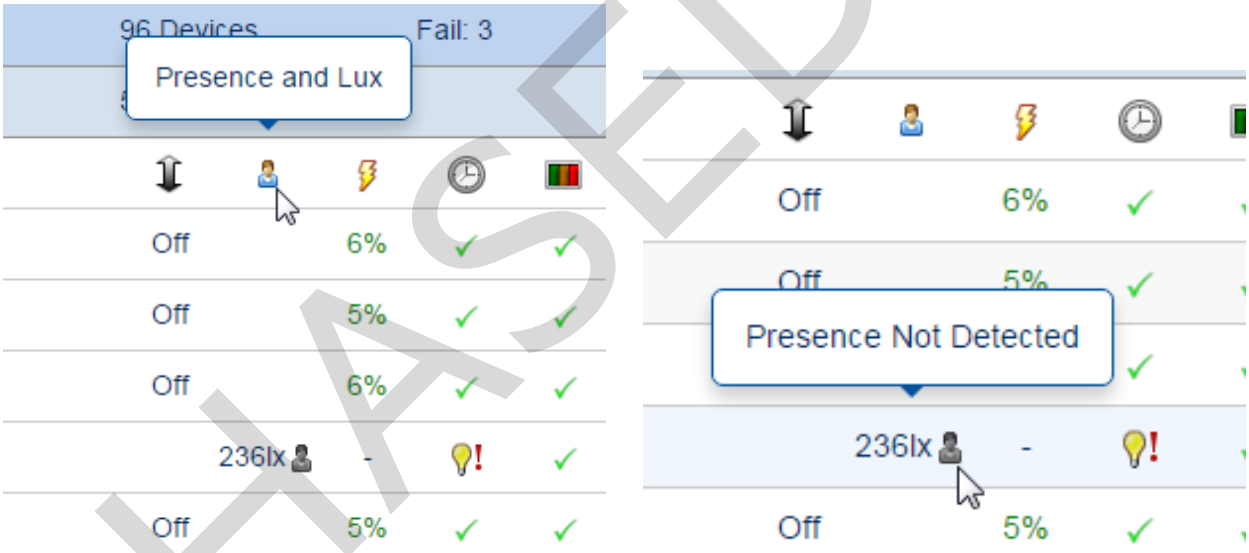
connecDIM Site Settings



If you move your cursor over the Dim Level field also Ballast Data will be displayed.

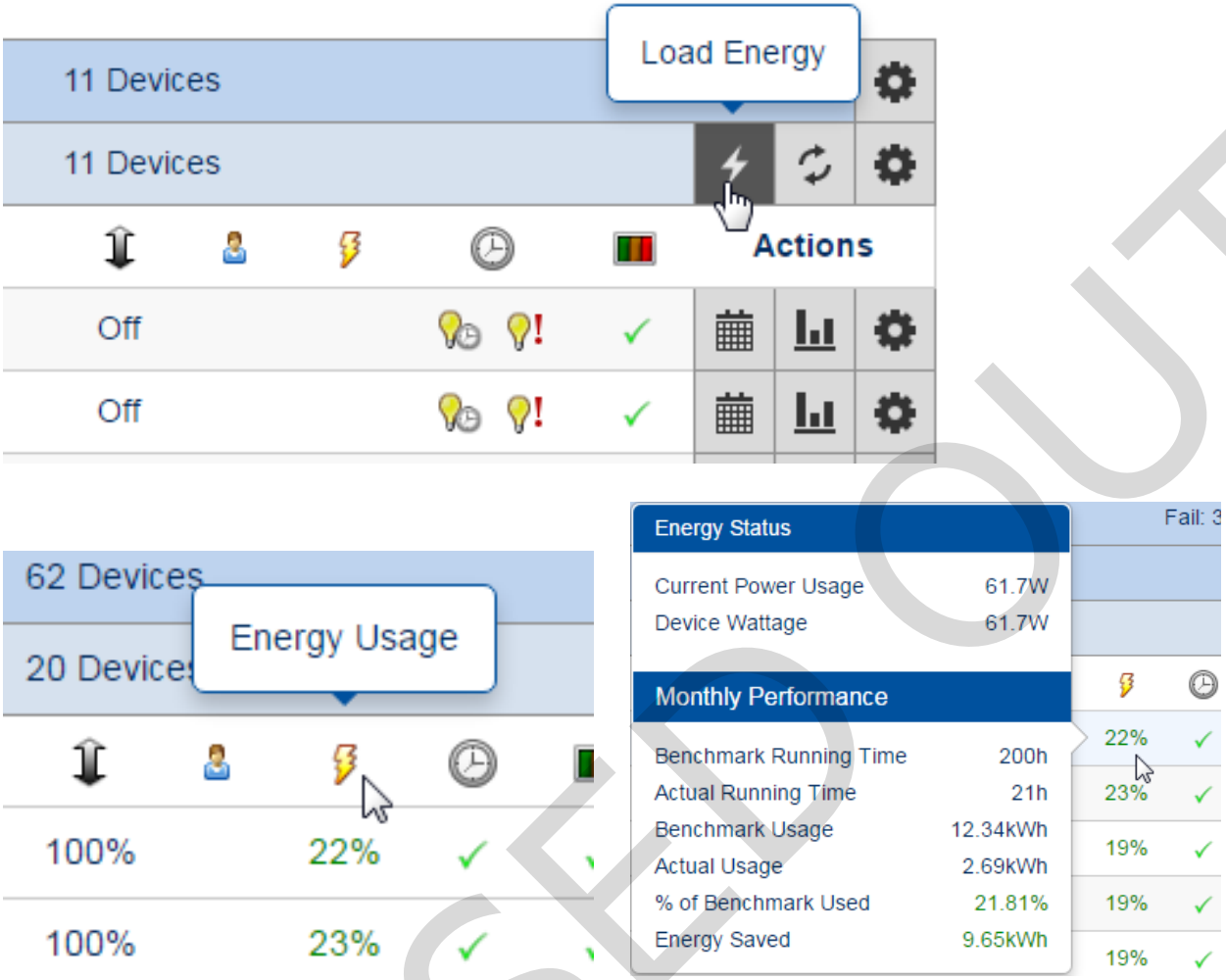


Presence and Lux are displayed if an MSensor is installed.



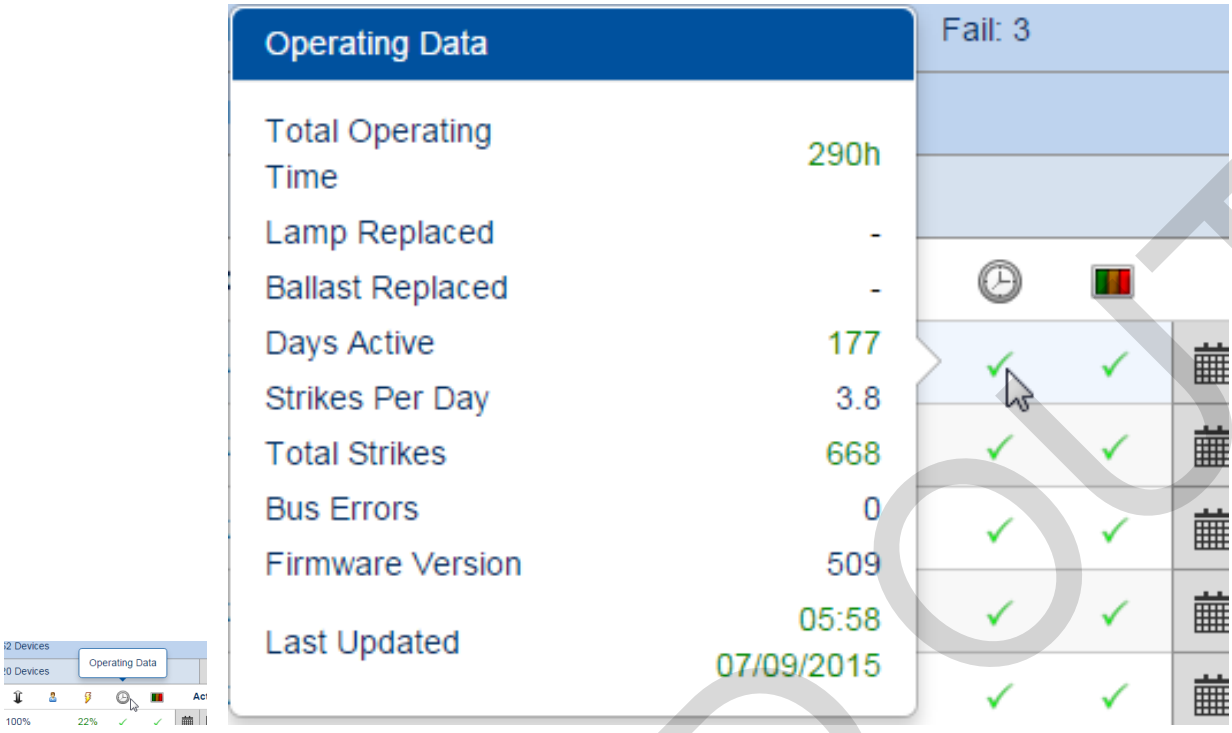
Energy Usage Displays the energy usage compared to the Benchmark Device Wattage which can be set in Management > Site Settings - Energy Usage Default Settings.

connecDIM Site Settings



Operating Data displays the operating data and the maintenance icons.

connecDIM Site Settings



connecDIM Site Settings

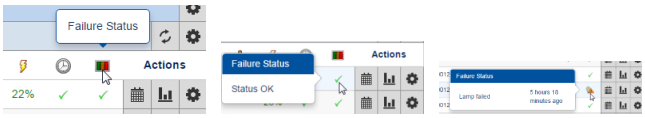
8.5.3. Operating Data and Predictive Maintenance Icons

Icon	Warning	Description
	Power Failure Warning	The device has been without mains power within the time frame specified in the Predictive Maintenance Settings.
	Strike Count Limit Exceeded	This device has exceeded the strike count limit specified in the Predictive Maintenance Settings.
	Lamp Replacement Overdue	The device's lamp has not been replaced within the time frame specified in the Predictive Maintenance Settings.
	Battery Replacement Overdue	The device's battery has not been replaced within the time frame specified in the Predictive Maintenance Settings. This warning is specific to Emergency Devices.
	Ballast Replacement Overdue	The device's ballast has not been replaced within the time frame specified in the Predictive Maintenance Settings.
	Device Replacement Overdue	The device has not been replaced within the time frame specified in the Predictive Maintenance Settings. This warning is specific to Emergency Devices.
	Operating Limit Exceeded	This device has been functioning for longer than specified in the Predictive Maintenance Settings. This warning is specific to Emergency Devices.
	Battery Limit Exceeded	This device has been functioning on battery power for longer than specified in the Predictive Maintenance Settings. This warning is specific to Emergency Devices.
	Active Days Limit Exceeded	This device has been reported on more days than the time frame specified in the Predictive Maintenance Settings.
	Function Test Overdue	This device has not performed a function test within the period specified in the Predictive Maintenance Settings. This warning is specific to Emergency Devices.
	Duration Test Overdue	This device has not performed a duration test within the period specified in the Predictive Maintenance Settings. This warning is specific to Emergency Devices.
	Communication Lost	The device has not reported within the time frame specified in the Predictive Maintenance Settings.

connecDIM Site Settings

✓	Status OK	Indicates that the Device is not reporting any warnings at this time.

Failure Status shows if there is an Failure of if the device status is OK

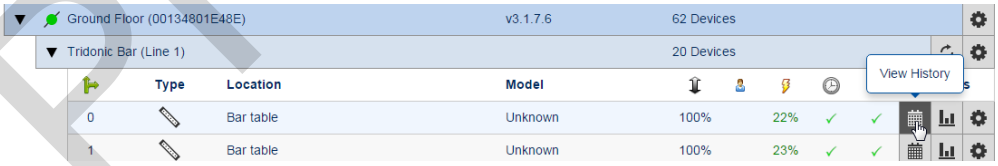


Icon	Warning	Description
	Lamp Fail	Indicates that the lamp has blown or is otherwise faulty.
	Circuit Fail	Indicates a hardware failure within the device. This warning is specific to Emergency Devices.
	Battery Duration Fail	Indicates that the device's battery failed to maintain its output while performing a duration test. This warning is specific to Emergency Devices.
	Battery Fail	Indicates that there is an open circuit or low voltage from the battery. This warning is specific to Emergency Devices.
	Function Test Fail	The device has failed a function test. This warning is specific to Emergency Devices.
	Duration Test Fail	The device has failed a duration test. This warning is specific to Emergency Devices.
✓	Status OK	The device is not reporting any failures at this time.

8.5.4. Actions

View History

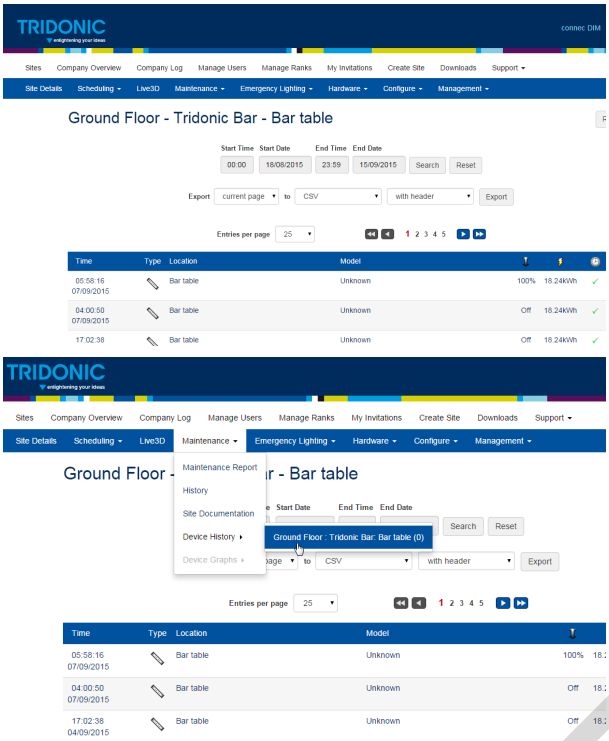
By selecting View History in the Actions field you are able to see the history of the device.

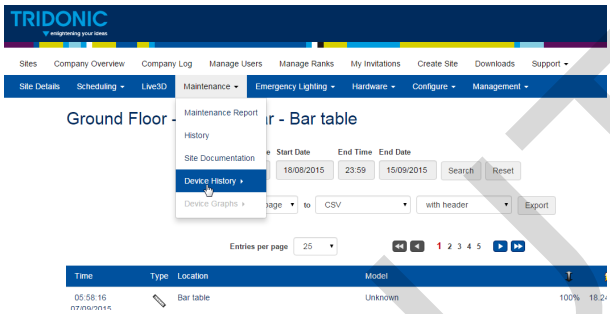


Once you have selected the View History field [View History] you will be forwarded to Maintenance > Device History.

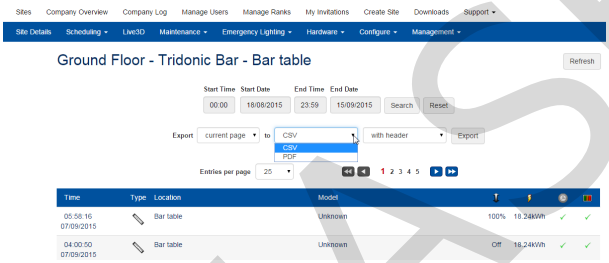
connecDIM Site Settings

Device History BETA

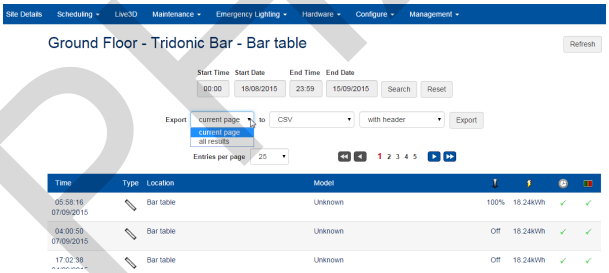




The Device History window allows you to download the history to a CSV or PDF file.

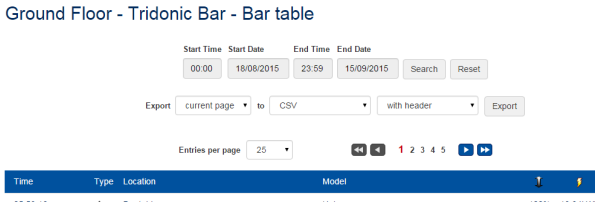


Also, it is possible to select if only the current page should be exported or all results.

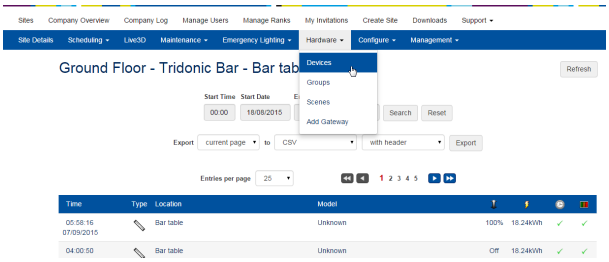


The time frame for the history files can also be selected by Start Time, Start Date - End Time and End Date

connecDIM Site Settings



To get back to the Device overview you have to select Hardware > Devices

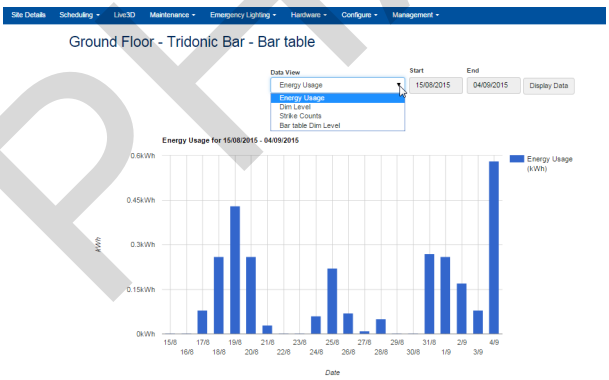


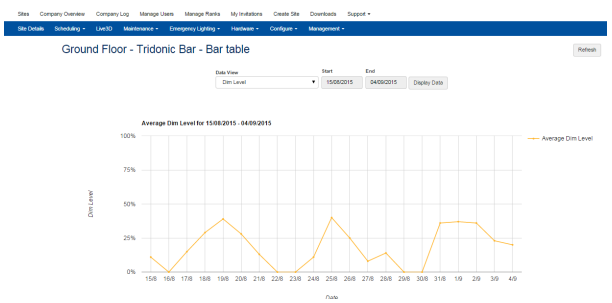
View Graph

By selecting View Graph in the actions field you will be forwarded to Maintenance > Device Graphs.

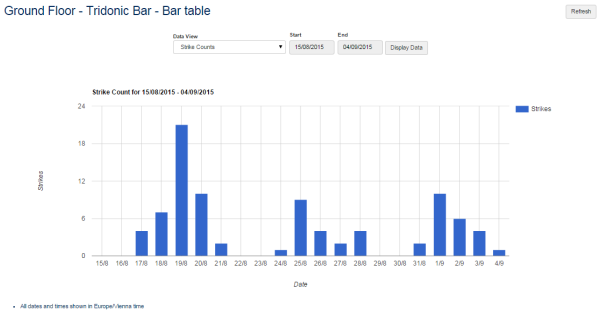
Device Graph BETA

Data like Energy Usage, Dim Level, Strike counts and Dim Level for the whole group (if the device is assigned to a DALI group)

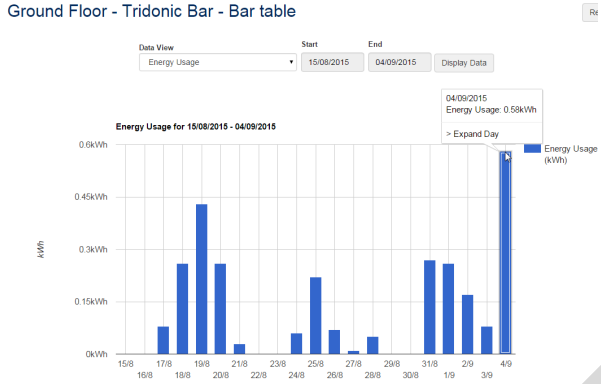




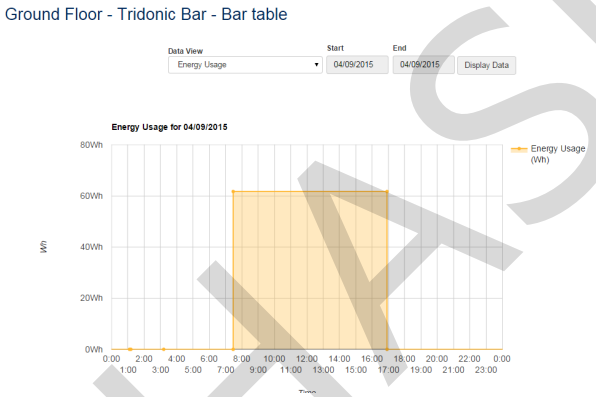
connecDIM Site Settings

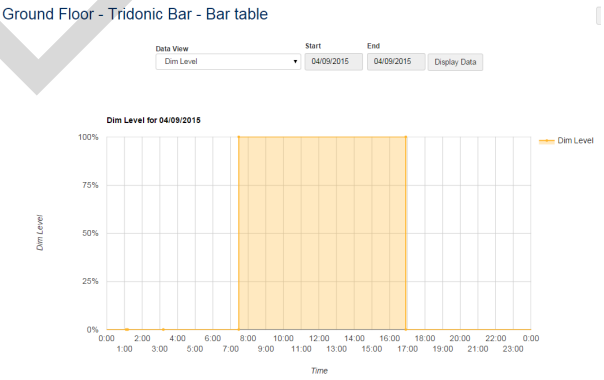


It is possible to select the time frame which should be shown in the overview, if you have selected several days you can easily expand the day by selecting expand day.

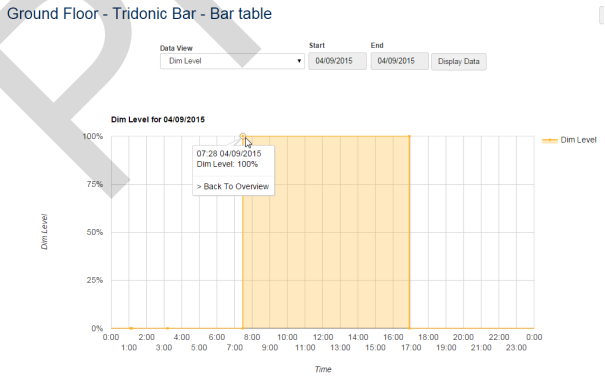


Once you have expanded the day you can easily compare e.g. Energy Usage vs Dimlevel. If you would like to switch from Dim Level back to Energy Usage you only need to change the field Data View and then select Display Data



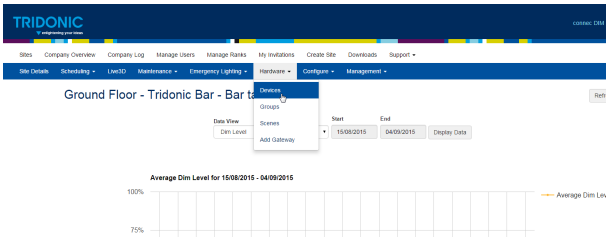


To get back to the overview, just select one of the points in the graph and then select Back To Overview.



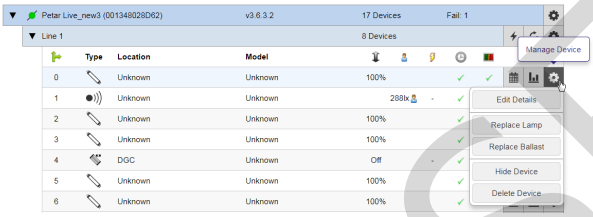
connecDIM Site Settings

To get back to the Device overview select Hardware/Devices

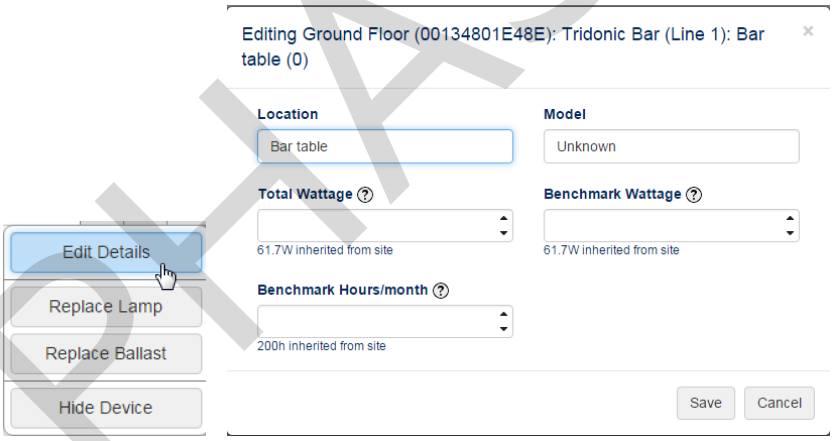


Manage Device

Select Manage Device to Edit Details, Replace Lamp, Replace Ballast, Hide Device or Delete Device.



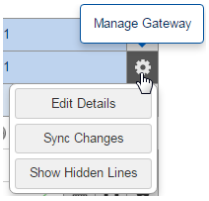
Edit Details



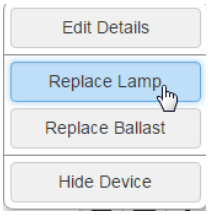
Synch Changes

Information filled in in the location field will be displayed in the connecDIMLite App. Once those information is changed, it is necessary to select synch Changes in the manage gateway window. By synching the changes this information will be stored to the connecDIM gateway hard drive, so those information will be available even the gateway isn't connected to the cloud.

connecDIM Site Settings



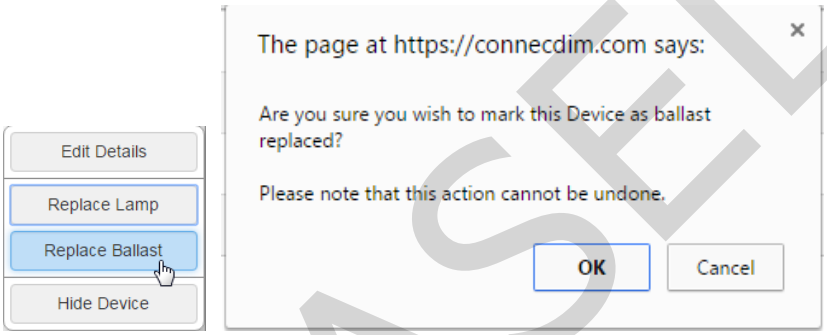
Replace Lamp



NOTICE

The **Replace Lamp** command will not reset the hours stored on the physical device. It will create a time stamp in the operating data so it is visible that the unit was replaced and the Strikes per day counter will be reset to = 0

Replace Ballast

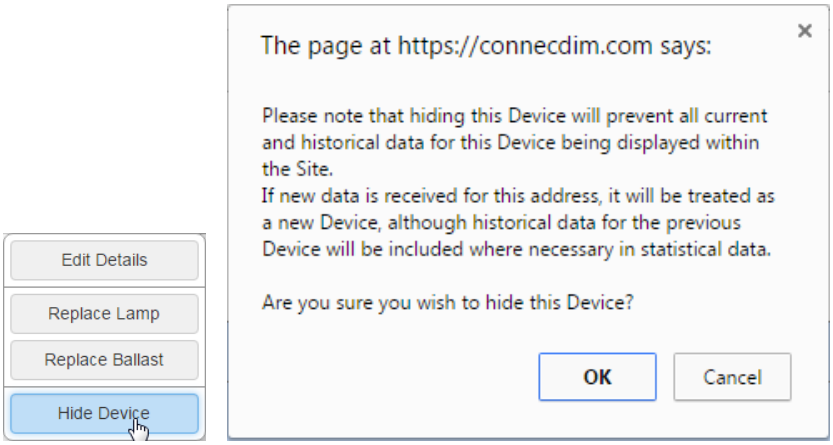


NOTICE

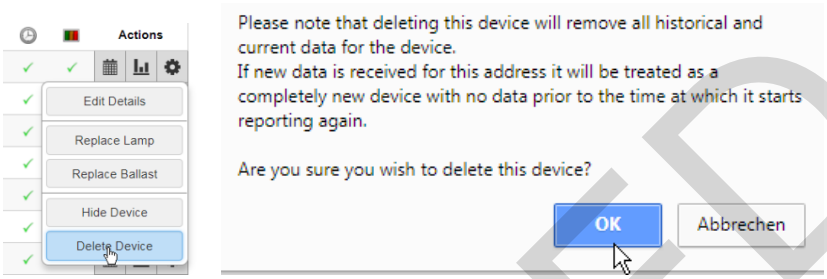
The **Replace Ballast** command will not reset the values stored on the physical device. It will create a time stamp in the operating data so it is visible that the unit was replaced and the Active Days, Operating Time will be set to = 0

connecDIM Site Settings

Hide Device

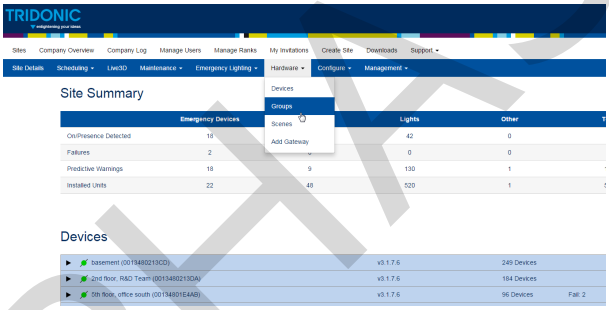


Delete Device

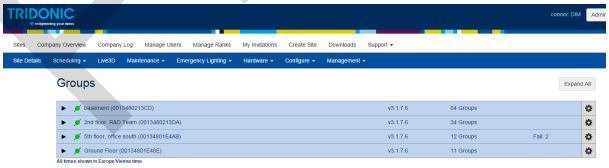


8.5.5. Groups

Select Hardware > Groups

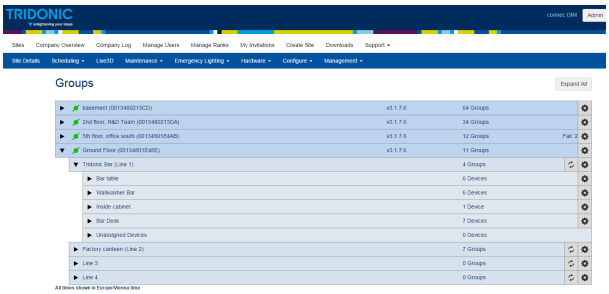


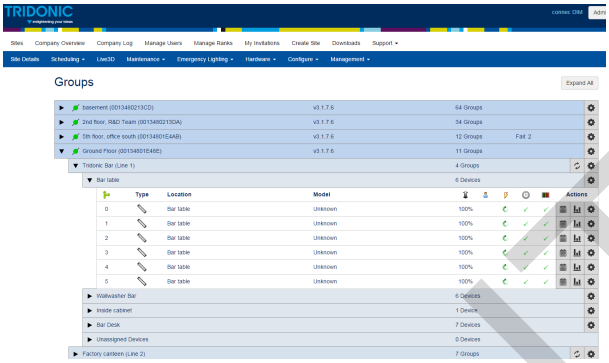
This will give you an overview of all DALI groups created for your site.

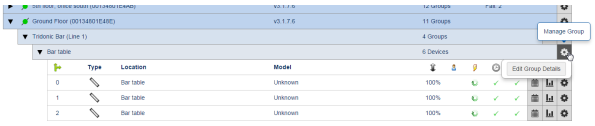


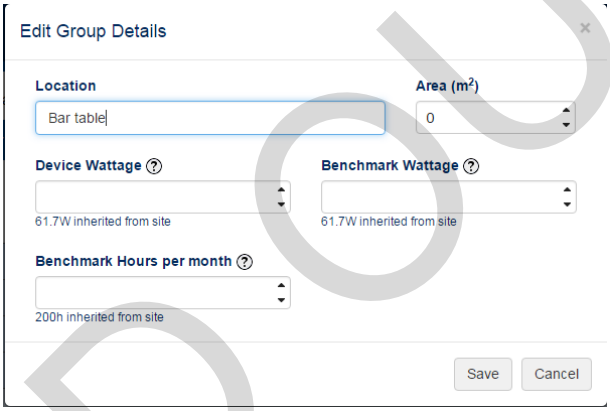
It is possible to Manage Gateways/Lines or Devices Details. An addition to the Device window (Hardware/Devices) is that Group Details can also be managed.

connecDIM Site Settings





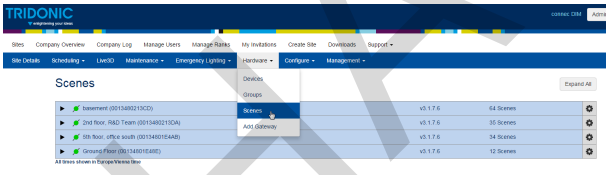


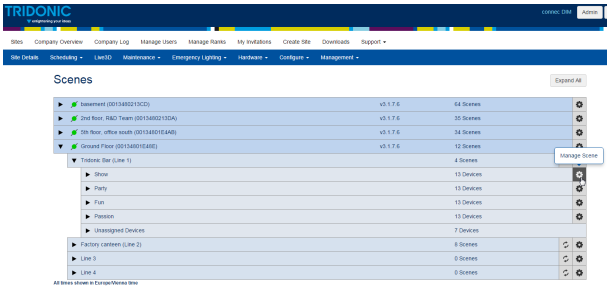


8.5.6. Scenes

Select Hardware > Scenes.

This window shows the overview of the programmed scenes for the different DALI Lines. An addition to the device window (Hardware/Devices) is that Scene Details can also be managed.



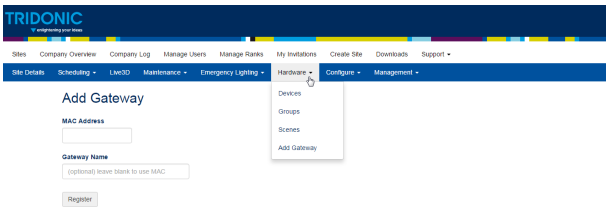


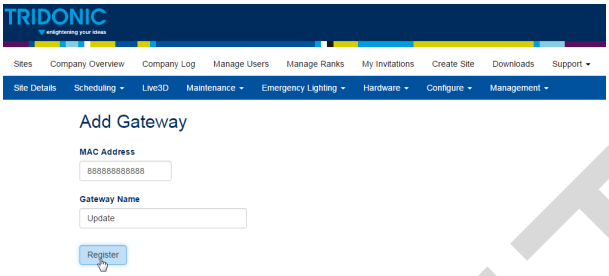
8.5.7. Add Gateway

Select Hardware > Add Gateway

In this window you can add additional gateways to your existing site. Type the MAC address and the gateway name in and select Register.

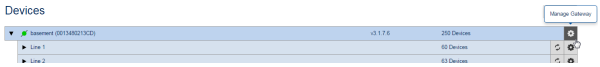
connecDIM Site Settings





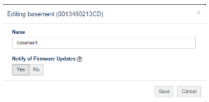
8.6. Update Gateway Firmware

Select Hardware > devices > manage gateway

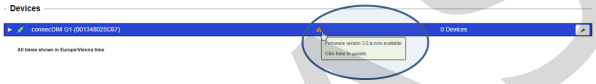


Select Edit Details.

Select Yes for Notify of firmware Updates.

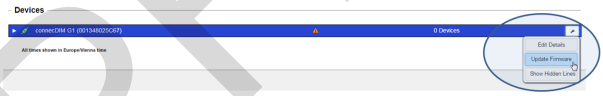


As soon as a firmware update is available it will be notified on the Device page.



The firmware can be updated by clicking on the triangle with the call sign or by selecting the gear symbol on the right side.

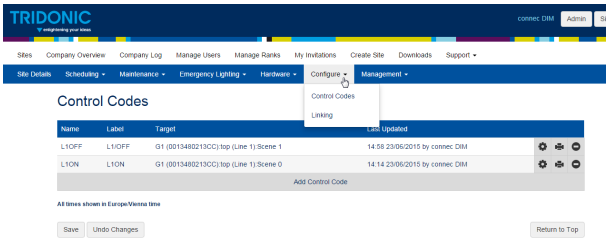
If the gear symbol on the right side is selected a new window will appear with the option Update Firmware. By selecting this option the Firmware will also been updated.



connecDIM Site Settings

8.7. connecDIM Configure

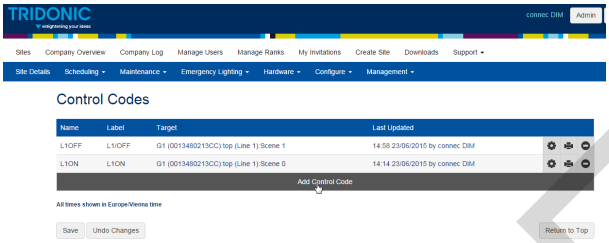
Configure window displays Control Codes and Linking



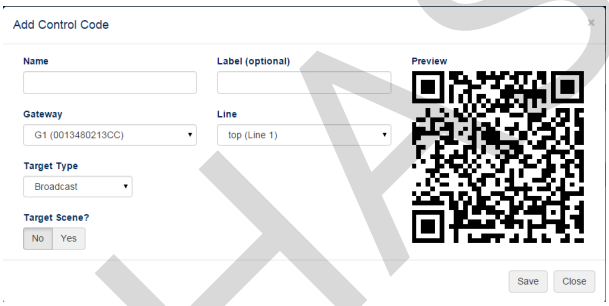
8.7.1. Control Codes

Select Configure > Control Codes to reach the control code window. In this window you can create QR codes which can be scanned by the connecDIMLite app and allowing you to control your light without switches.

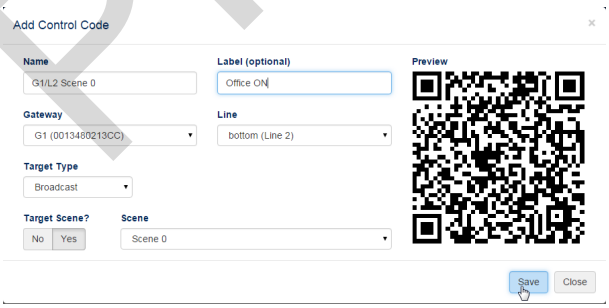
Select add control code



In the new window you can enter the name and label. You have to select the GW and Line and then you can select the command which should be send when the QR Code is scanned.



Once you have made your settings select Save.



Existing control codes can be edited, printed and removed

connecDIM Site Settings

CAUTION!

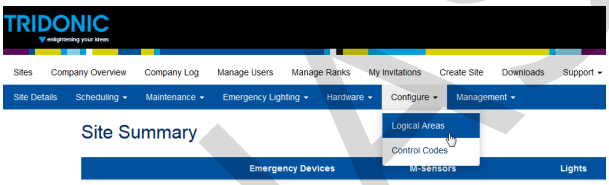
If the gateway is locked, the control codes will work only for registered site users.

8.7.2. Logical Areas

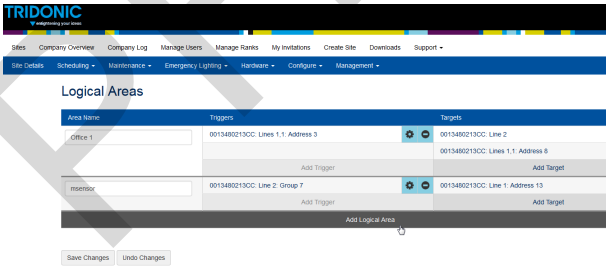
Select Configure > Logical Areas. Logical Areas are allowing you to create "virtual groups" which can be spread over several gateways and DALI Lines.
connecDIM makes it possible to control buildings in spaces (e.g. rooms, levels) without having to know DALI.

Opportunities offered by logical areas:

- Be controlled with one Tridonic DALI device
- Provide an energy graph over larger space
- Email report on failures and warnings
- Can be scheduled
- Can be restricted to a System Administrator

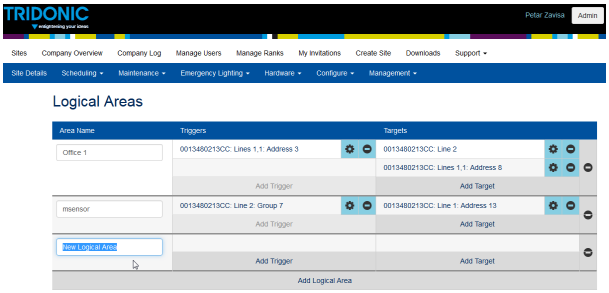


Select add logical area.

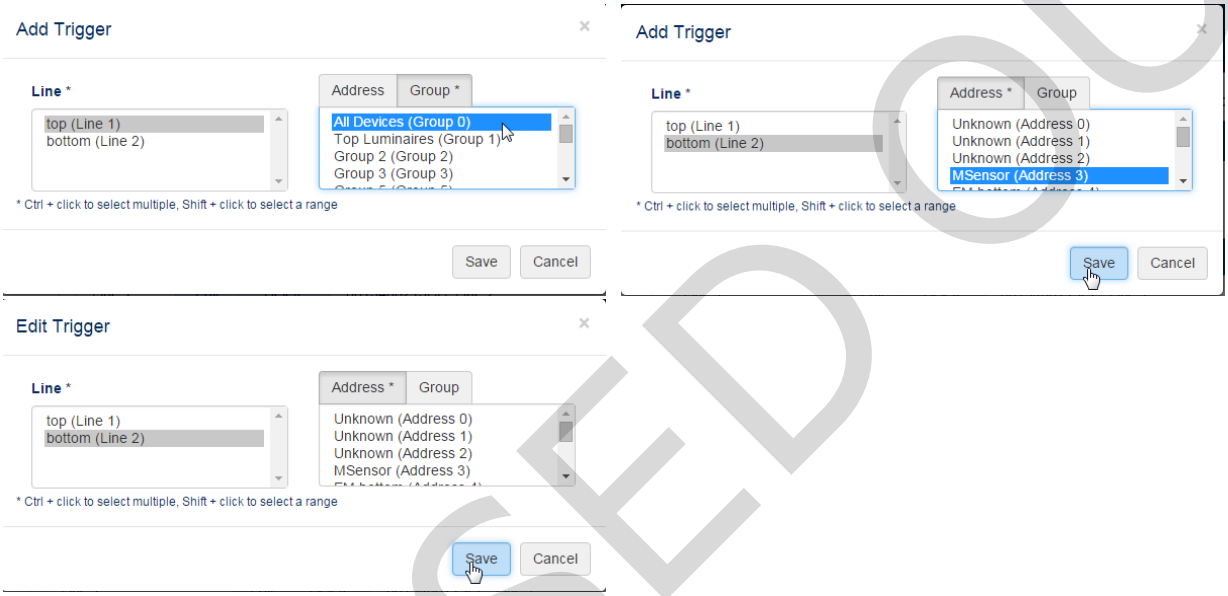


Type in a name for the logical area.

connecDIM Site Settings



Select add trigger. A trigger can be a DALI line, group or device. 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 DALI line, group or device can be selected as a trigger.



Select add target. Several DALI lines, groups or devices can be selected as a target.

It is also possible to create a Logical Area without a trigger. This is useful if a Logical Area is used for email alerts or energy performance monitoring. This avoids the risk of large areas being triggered accidentally.

connecDIM Site Settings

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.

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 send to Line 2 but Logical Area 2 will not be triggered.

Supported commands for logical areas

The following commands send 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

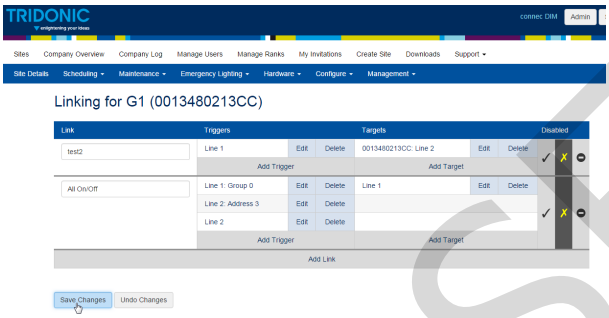
connecDIM Site Settings

- GO TO SCENE (0-15)
- Color:
- SET TEMPORARY COLOUR TEMPERATURE Tc
- 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 more details refer to Shallow and Medium Scan, S. 87.

Once you have made your settings select save changes.

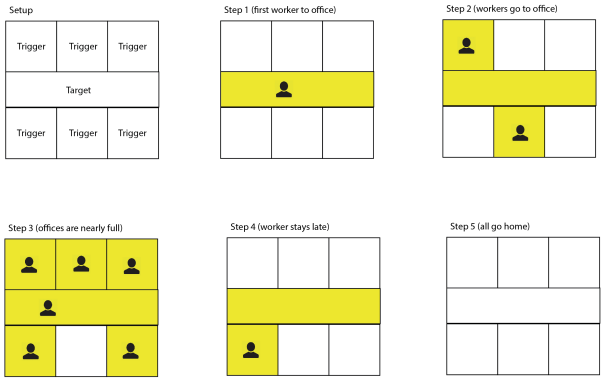


Logical areas can be enabled/disabled or deleted.

connecDIM Site Settings

8.7.3. MSensor linking support

Since the update in October 2016 it is possible to use MSensor and link the motion detection. This feature allows you to have the light in the corridor of a building switched on as long there is motion in any other room.

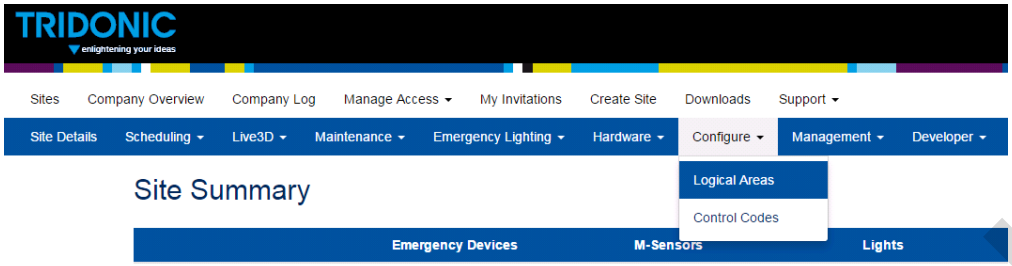
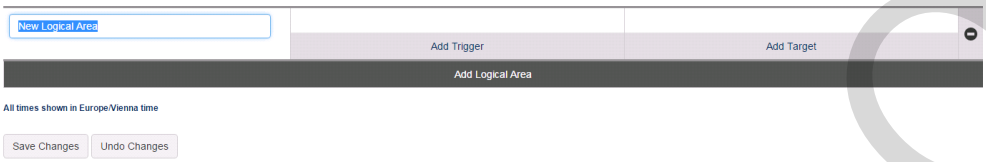
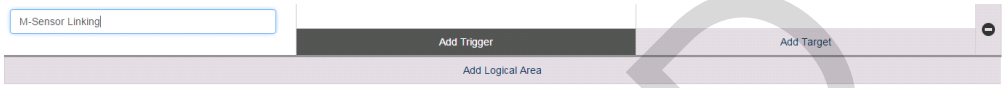
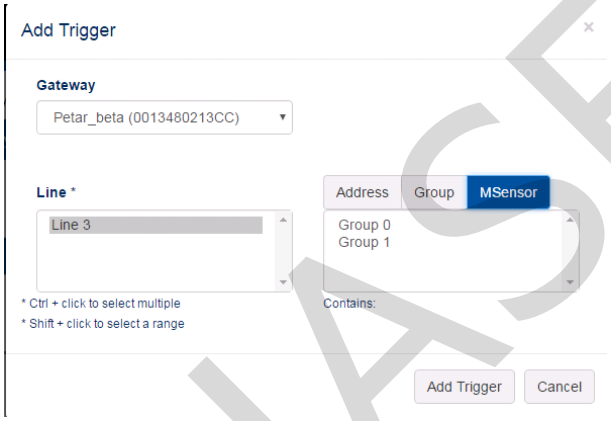
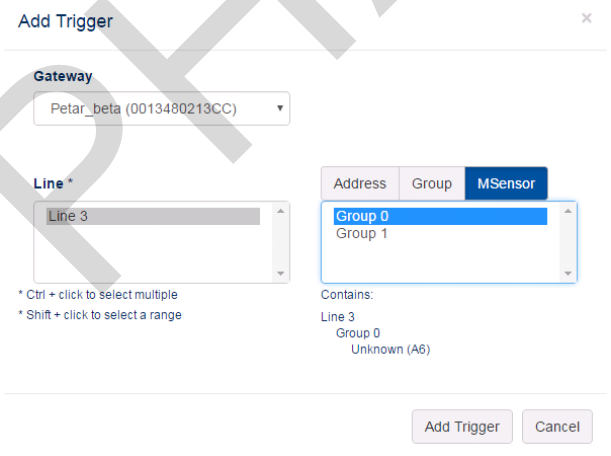


CAUTION!

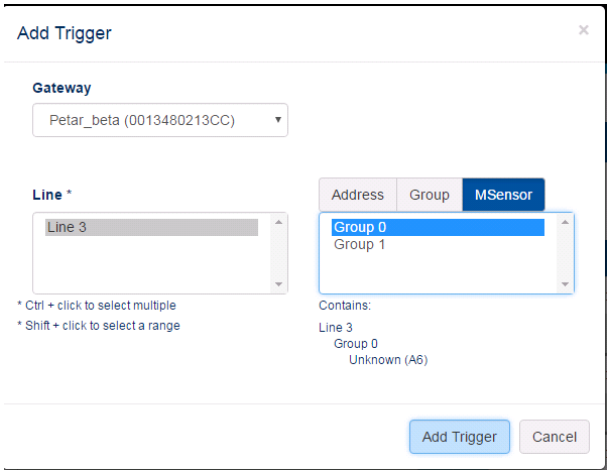
This Feature can only be programmed via the connecDIM cloud but not via the connecDIM apps.

connecDIM Site Settings

How to

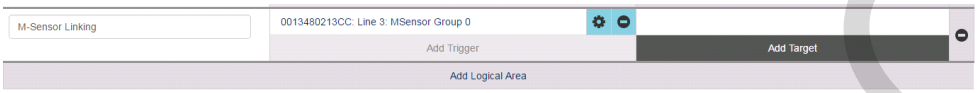
Image	Description
	Go to Configure / Logical Areas
	Select Add Logical Area Fill in a name for this Logical Area
	Select Add Trigger
	Select the GW and line where the Trigger MSensor is located. Select MSensor
	Select the Group where the Trigger MSensor is located. In this case its G0 You will see a list with MSensor located in this group. In this case MSensor with A6 is located in this group.

connecDIM Site Settings



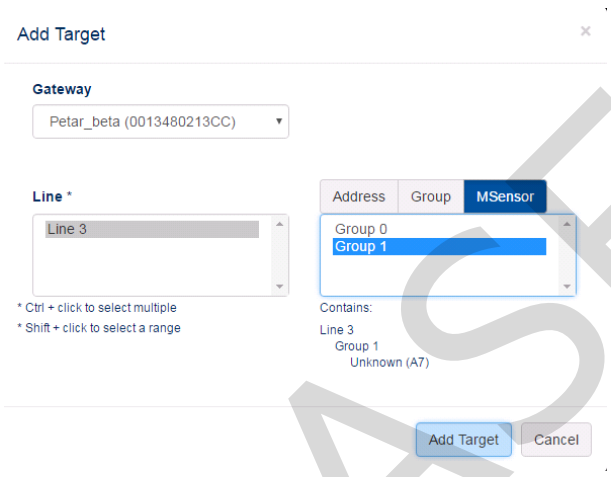
Select add Trigger.

This will save the settings for the Trigger.



In the next step it is necessary to select the Target.

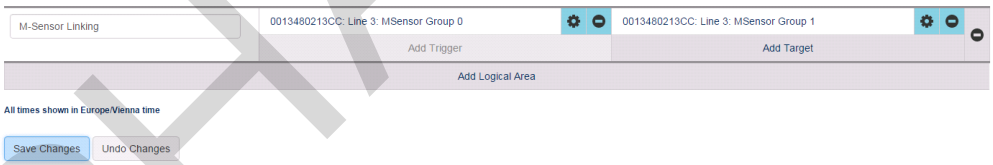
Select Add Target



Select the GW and Line where the MSensor is located which should be the Target.

Select MSensor, select the Group in which the target MSensor is located.

Once you have selected the Target Msensor select Add Target to save the settings.



Once you have programmed your MSensor Linking select Save Changes.

In this case every motion detected in G0 will be forwarded to G1.

This means as long G0 is occupied Lights in G1 will also stay switched on even there is nobody detected in this area.

FAQ MSensor Linking

Q: How many Triggers / Targets are allowed?
A: There is no limit defined.

connecDIM Site Settings

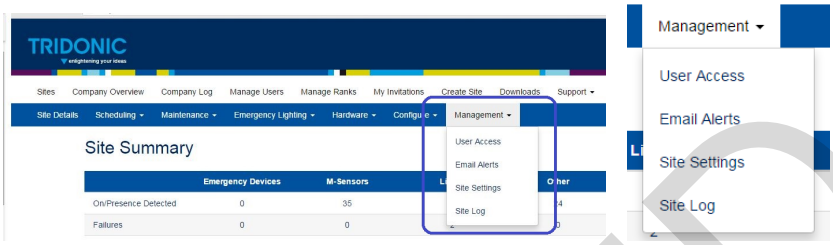
Q: can I use a Trigger / Target from a different Line or Gateway?
A: Yes.

Q: My ambient Light regulation is active, will those commands also been forwarded?
A: If you are using this feature no. If you would like to have the light regulation also forwarded you need to create a Logical Area.

8.8. Management

You are logged in and have selected the site you would like to view.

_ Select Management in the following menu. You can select User Access, Email Alerts, Site Settings and Site Log.

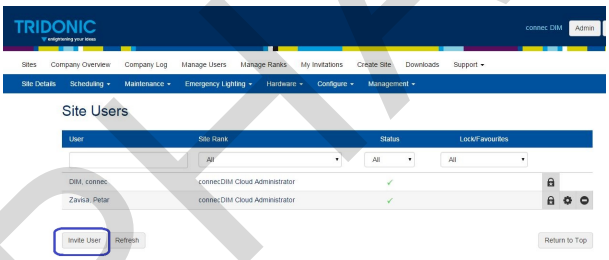


8.9. User Access BETA

8.9.1. Invite User

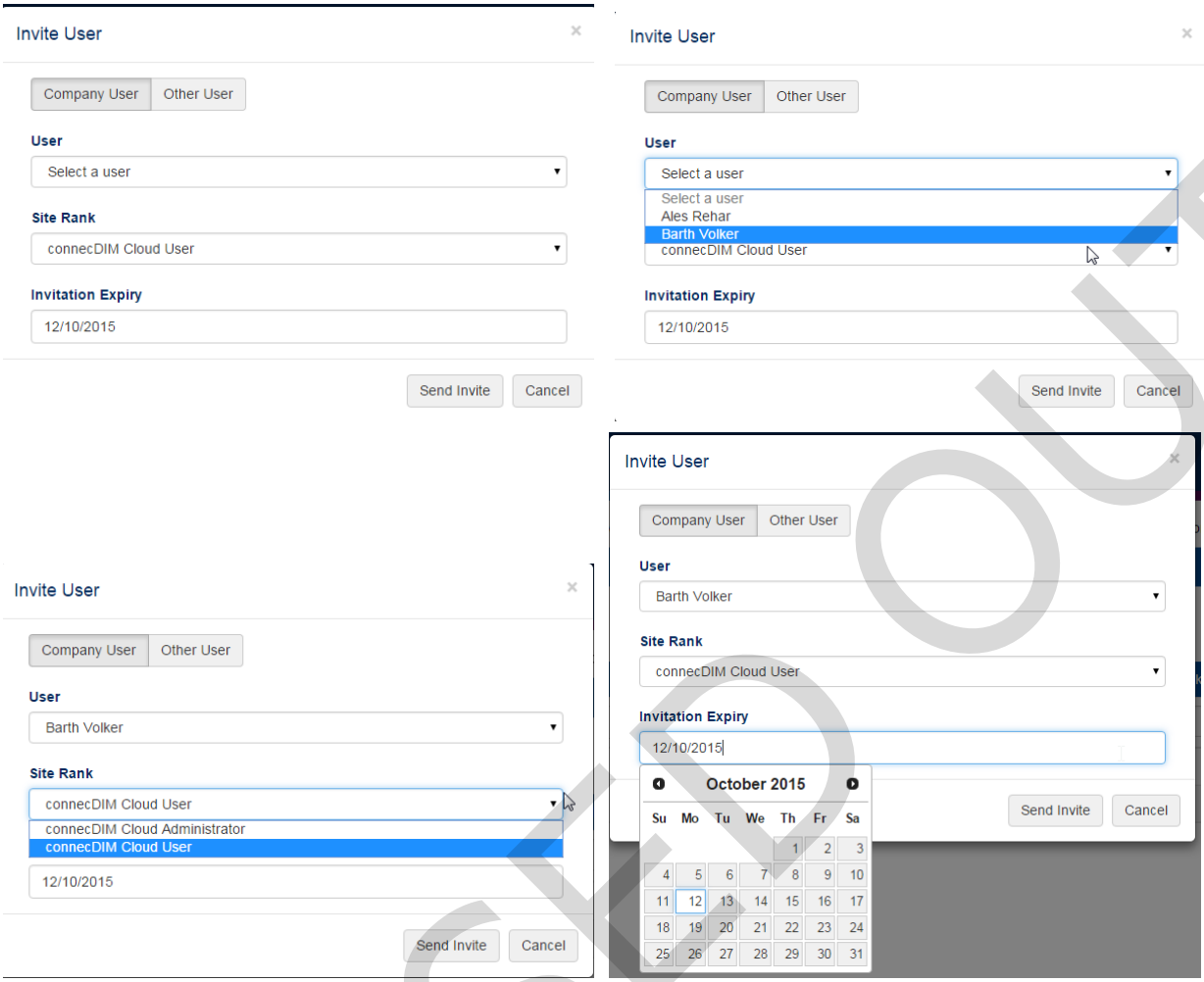
The Site Users page gives you an overview of all users who are invited to your site.

It is possible to invite new users by selecting the field Invite User



Once selected you can select Company User or Other User.
If the user is already registered as a company user, select the user you would like to add to this site. Then you can select the Site Rank (more details about ranks can be found in the section Company Rank Icons, S. 14).

connecDIM Site Settings

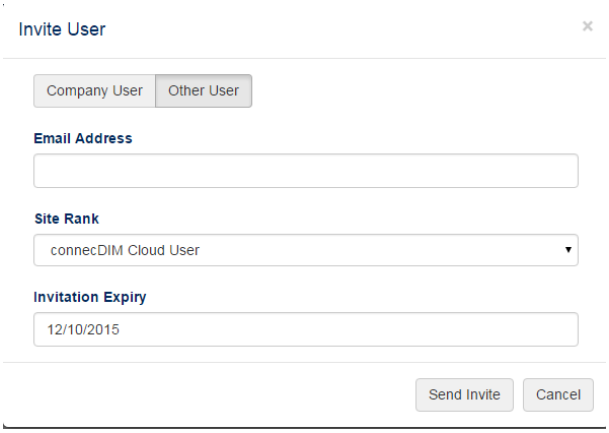


Other User

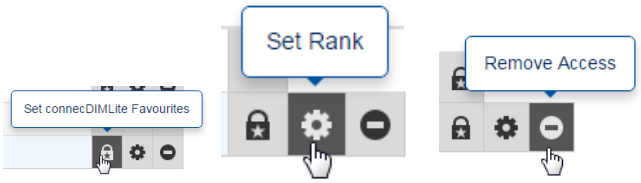
If the user isn't an registered company user, select the field Other User . Now you need to type in the Email address from the user you would like to invite. Also you can select the site rank and when the invitation should expire.

> **NOTICE**
>
> Important: the user needs to register to connecDIM.com to be able to get access to your site.

connecDIM Site Settings

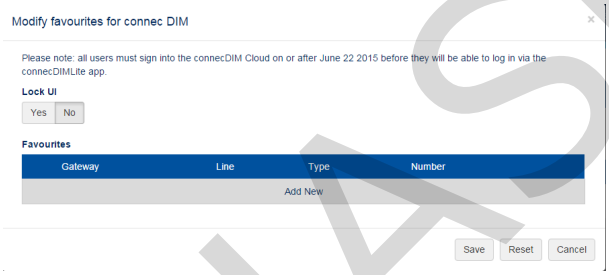


Once you have invited all users you can use Set connecDIMLite Favorites, Set Ranks and also Remove Access.

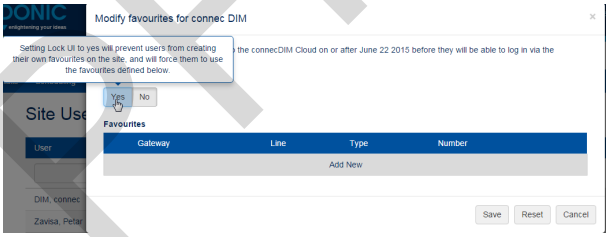


8.9.2. Set connecDIMLite Favorites

In the section set connecDIMLite Favorites you can predefine the favorites for each user.

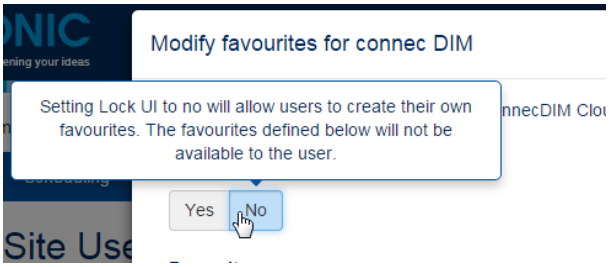


Two options are available. Lock UI YES and NO.
Setting Lock UI to yes will prevent users from creating their own favourites and will force them to use the predefined favourites.

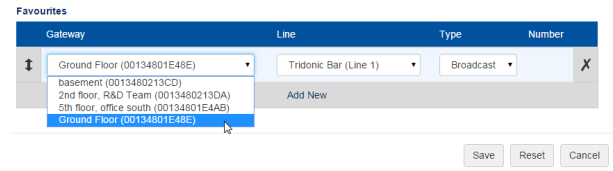


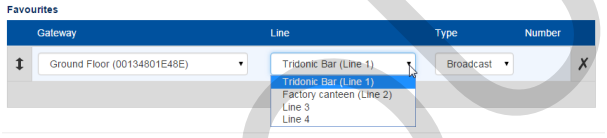
Setting Lock UI to no will allow users to create their own favourites. Predefined favourites will not be visible in the connecDIMLite app.

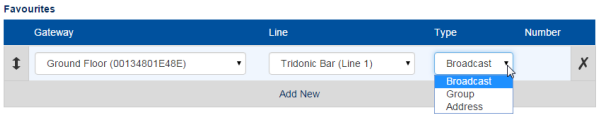
connecDIM Site Settings

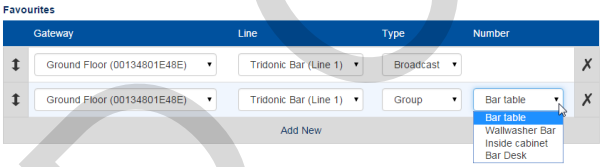


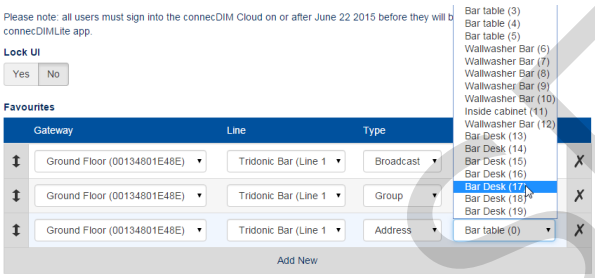
To add predefined favourites you have to select the gateway, line, type (Broadcast = the whole DALI line, Group = predefined group of luminaires or Address = one specific luminaire)

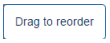




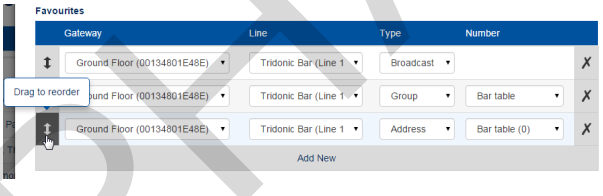


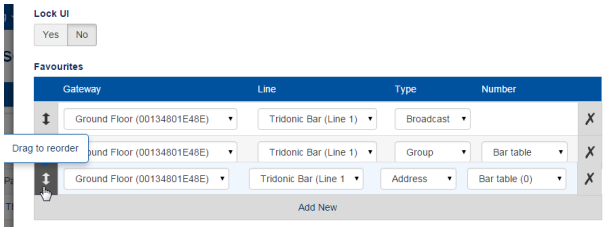


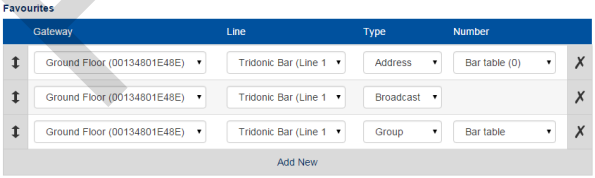


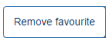


Once you have added all favourites, you can also reorder the favourites by selecting the field Drag to reorder .



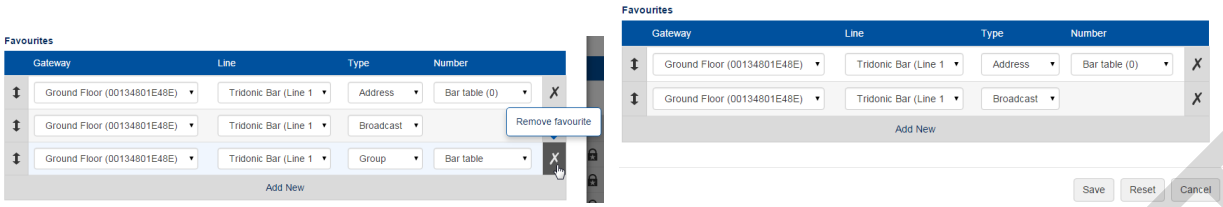






Also, it is possible to delete/remove favourites .

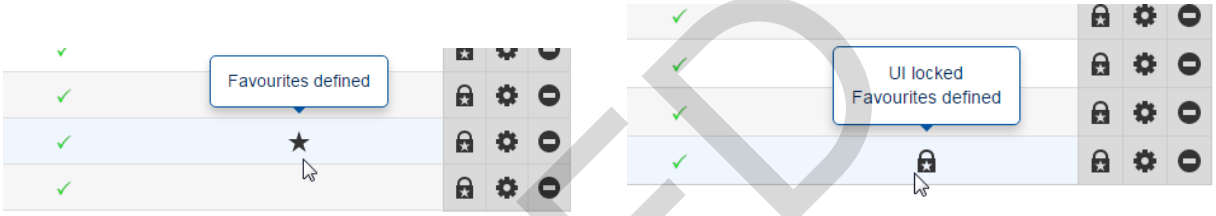
connecDIM Site Settings



Once you have added all the favourites you need to select Save .
The Site User page gives you an overview of all the site users and it shows if they have favourites defined and if their UI is locked.

NOTICE

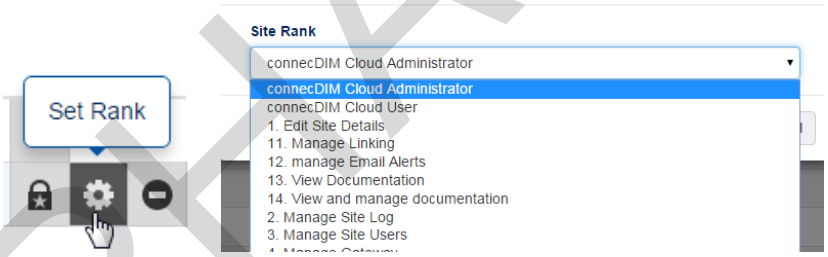
Important: Keep in mind that the user will see his favourites in the connecDIMLite app only if you lock the UI.



Set Ranks

There are three default ranks predefined for the connecDIM cloud: Administrator, User and app user.
It is possible to create additional ranks (for more details see section Site Rank Icons, S. 15).

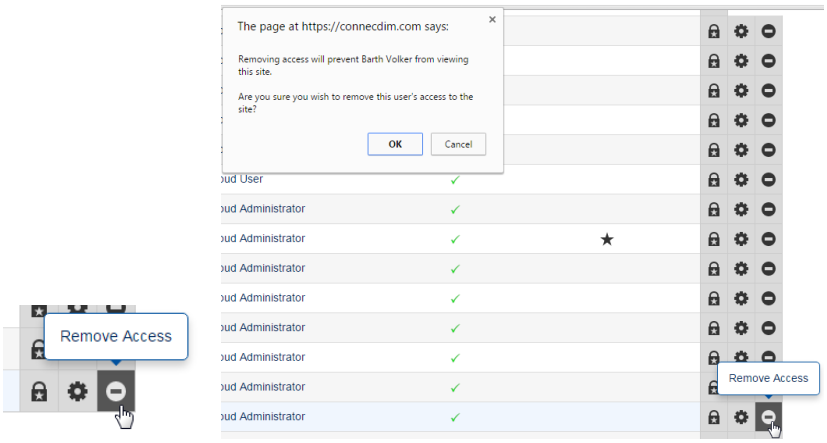
In the Set Ranks window you can change the site rank e.g. change a user's rank from administrator to user.



connecDIM Site Settings

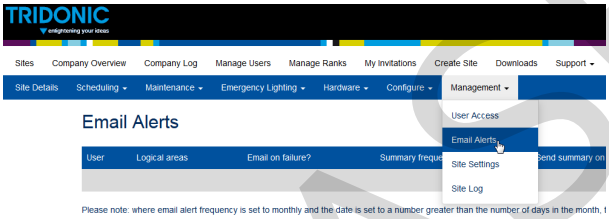
Remove Access

In the remove access window you can remove an existing user. Once you have selected Remove Access, a pop up window will open and ask you if you are sure to do this. Confirm this by selecting the field OK or decline this by selecting the field Cancel.

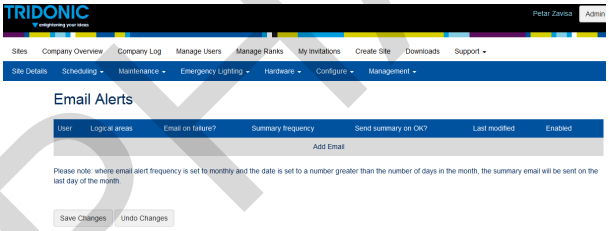


8.10. Email Alerts BETA

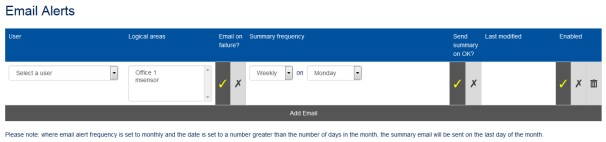
Select Email Alerts in the Management drop down menu.



Select Add Email to setup Email Alerts.

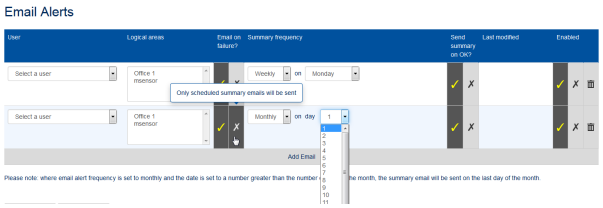


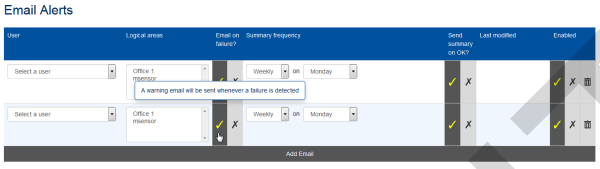
Select the user who will receive an email and the logical areas which should be reported.



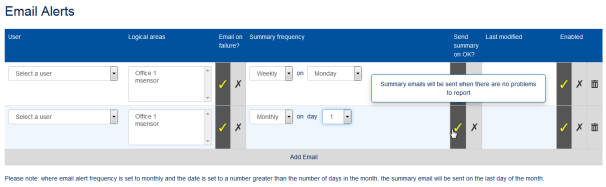
connecDIM Site Settings

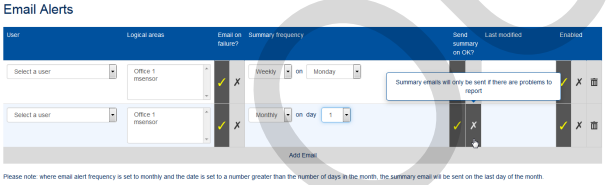
You can select if an email will be sent as soon as a failure is detected or if only summaries will be sent. The summary frequency can be selected weekly or monthly. For weekly, you can select the day of the week when the mail should be send and for monthly you can select the date.

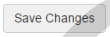




You can select if summary emails should also be send if everything is ok.





Once you have set all the Email Alerts, select Save Changes 

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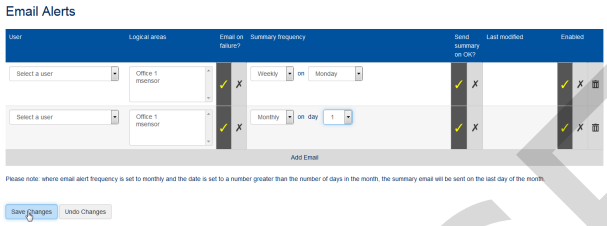


8.10.1. Email Alert Warning Types

Lamp Failure

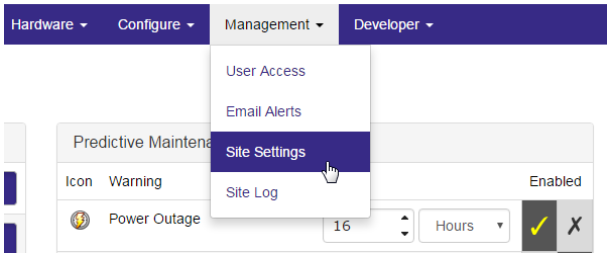
This warning type is displayed if a device has reported a lamp failure.
The value is retrieved from DALI using the QUERY STATUS and/or the QUERY LAMP FAILURE commands, and is the equivalent of a Lamp Failed error in the cloud.

> **NOTICE**
>
> The same warning type is also displayed if the connected load is not within the operating window of the LED Driver and the LED Driver is dimmed below the operating window.
> If this happens, the light would typically switch off but in some cases it is possible that the light stays on.

connecDIM Site Settings

Power Outage

This warning type is displayed if an emergency device has suffered a blackout within a specific time frame.
The time frame is the equivalent of a Last Power Outage warning in the cloud and is set at Management > Site Settings, table “Predictive Maintenance Warnings”, menu “Power Outage value”.



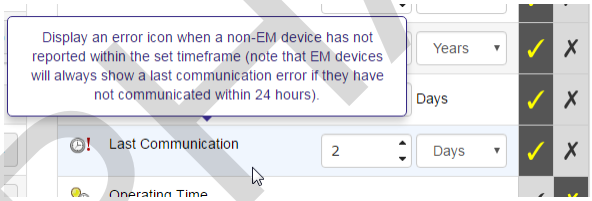
NOTICE

connecDIM will monitor a power recovery only if the connecDIM gateway and its components are powered during the blackout. Also, it is necessary that a shallow or medium scan is active during the blackout. The reason for this, is that the Power Outage information depends on the emergency mode status of the device. The emergency mode status changes depending on whether mains is available or not. If the shallow or medium scan was active and did monitor the blackout, the information will be stored in the device history table and will be visualized with a bell symbol.

This feature is only valid for Emergency (Device Type 1) Devices. Other Dali Devices do not support this feature.

Communication Failure

This warning type is displayed if a device has not reported within the defined time frame.
The time frame is defined at Management > Site Settings, table “Predictive Maintenance Warnings”, menu “Last Communication value”.



Thermal Overload

This warning type is displayed if an LED device has suffered a thermal overload.
The value is retrieved from DALI using the QUERY THERMAL OVERLOAD command.

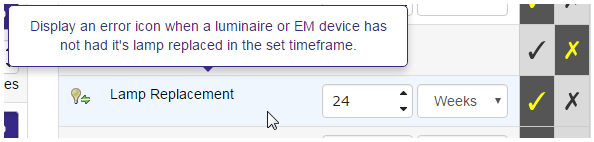
Thermal Shutdown

This warning type is displayed if an LED device was shutdown due to continuous thermal overload.
The value is retrieved from DALI using the QUERY THERMAL SHUTDOWN command.

connecDIM Site Settings

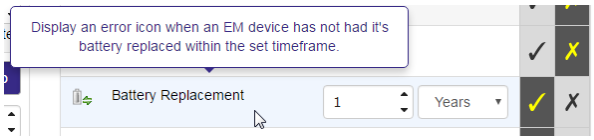
Lamp Replaced

This warning type is displayed if a lamp has not been replaced within the set time frame for lamp replacement.
The time frame is defined at Management > Site Settings, table “Predictive Maintenance Warnings”, menu “Lamp Replacement value” and is the equivalent of a Lamp Replaced warning in the cloud.



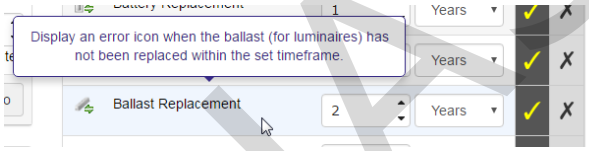
Battery Replaced

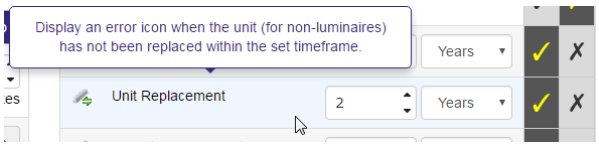
This warning type is displayed if the battery has not been replaced within the set time frame for battery replacement.
The time frame is defined at Management > Site Settings, table “Predictive Maintenance Warnings”, menu “Battery Replacement value” and is the equivalent of a Battery Replaced warning in the cloud.



Control Gear Replaced

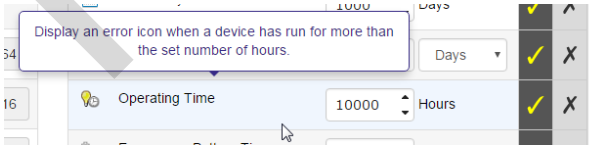
This warning type is displayed if the unit and/or the ballast has not been replaced within the set time frame for ballast replacement.
The time frame is defined at Management > Site Settings, table “Predictive Maintenance Warnings”, menu “Ballast Replacement value” for luminaries or at Management > Site Settings, table “Predictive Maintenance Warnings”, menu “Unit Replacement value” for non-luminaires and is the equivalent of a Unit or Ballast Replaced warning in the cloud.





Exceeding Operating Time

This warning type is displayed if a device has reported that it has run for more than the set operating time.
The limit is defined at Management > Site Settings, table “Predictive Maintenance Warnings”, menu "Operating Time value" and is the equivalent of an Operating Time warning in the cloud.



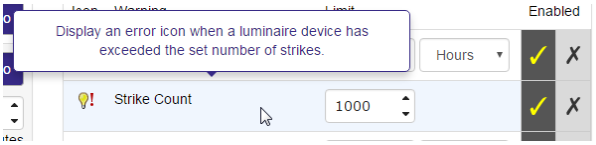
connecDIM Site Settings

Exceeding Active Days

This warning type is displayed if a device has reported that it has been active for more than the set number of active days.
The limit is defined at Management > Site Settings, table “Predictive Maintenance Warnings”, menu "Active Days value" and is the equivalent of a Days Active warning.

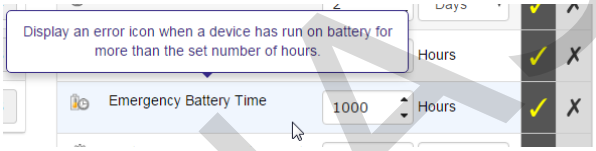
Exceeding Strike Count

This warning type is displayed if a device has reported that it has been switched on more than the set number of strike counts.
The limit is defined at Management > Site Settings, table “Predictive Maintenance Warnings”, menu "Strike Count value" and is the equivalent of a Total Strikes warning in the cloud.



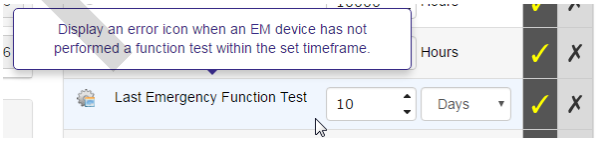
Battery Time Expires

This warning type is displayed if an emergency device has reported that the battery has run for more than the set emergency battery time.
The limit is defined at Management > Site Settings, table “Predictive Maintenance Warnings”, menu "Battery Time value" and is the equivalent of a Time On Battery warning in the cloud.



Function Test Time Expires

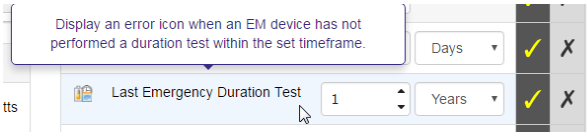
This warning type is displayed if an emergency device has not reported running a function test within the set time frame for last emergency function test.
The limit is defined at Management > Site Settings, table “Predictive Maintenance Warnings”, menu "Last Emergency Function Test value" and is the equivalent of a Last Function Test warning in the cloud.



connecDIM Site Settings

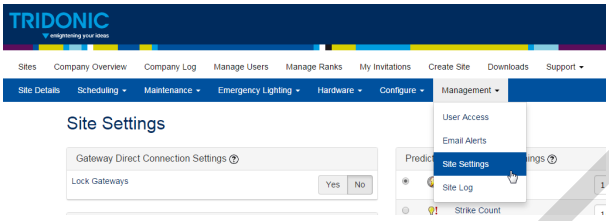
Duration Test Time Expires

This warning type is displayed if an emergency device has not reported running a duration test within the set time frame for last emergency duration test.
The limit is defined at Management > Site Settings, table “Predictive Maintenance Warnings”, menu "Last Emergency Duration Test value" and is the equivalent of a Last Duration Test warning in the cloud.



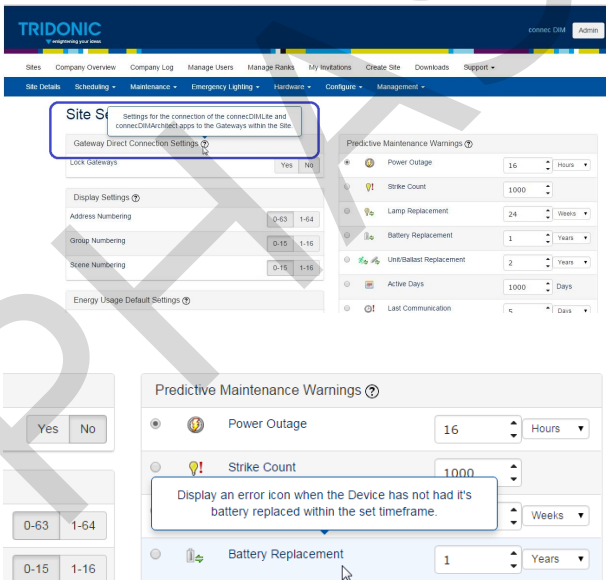
8.11. Site Settings

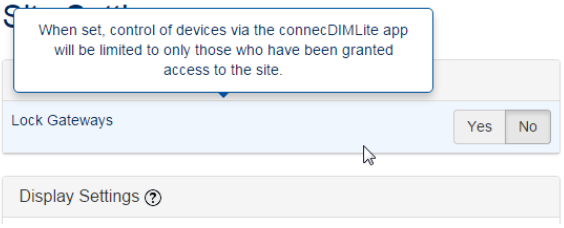
Select Site Settings in the Management drop down menu.



Site Settings allows you to modify Gateway Direct connection Settings, Display Settings, Energy Usage Default Settings, Recent Warning Settings, Predictive Maintenance Warnings.

- By selecting the question mark or moving the cursor over the area you will receive information for the different subjects.





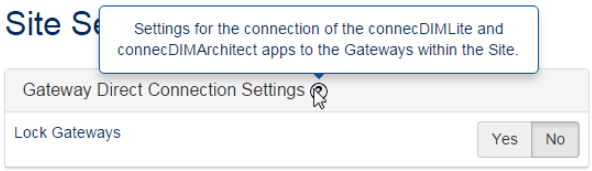
connecDIM Site Settings

8.11.1. Gateway Direct Connection Settings

Gateway Direct connection Settings allows you to lock the gateways registered to your site. This is useful if you want to have full control over who is connecting to your gateway in the Wi-Fi network. Imagine a situation where connecDIM is connected to Wi-Fi and a lot of user are allowed to connect to the Wi-Fi (they know the password), but only certain users should be able to control the light. Also this is a security feature because once the gateway is locked the connecDIMArchitect app isn't allowed to connect to this gateway. This prevents the settings in the installation to be changed by accident.

⚠ CAUTION!

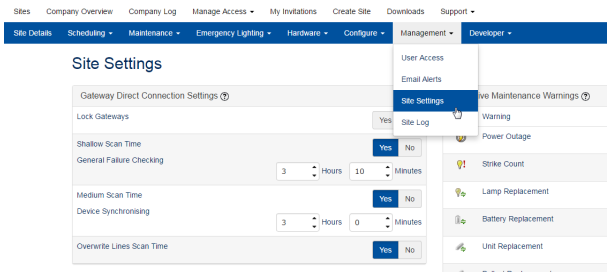
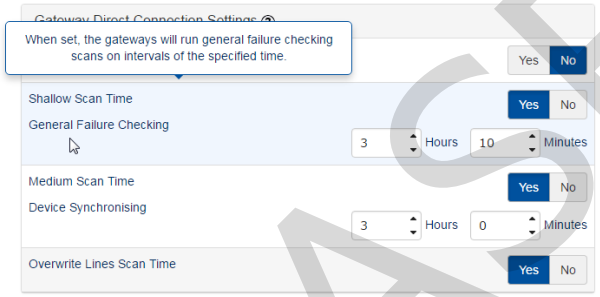
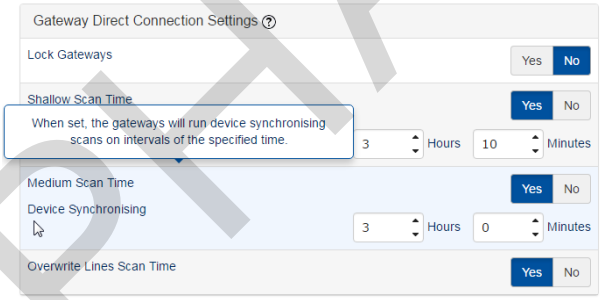
Once the gateway is locked only registered site users are allowed to connect to the gateway. The connecDIMArchitect app will not be operable. Only the connecDIMLite app in combination with the user access will be operable. Control Codes created will also only work for registered Site users.



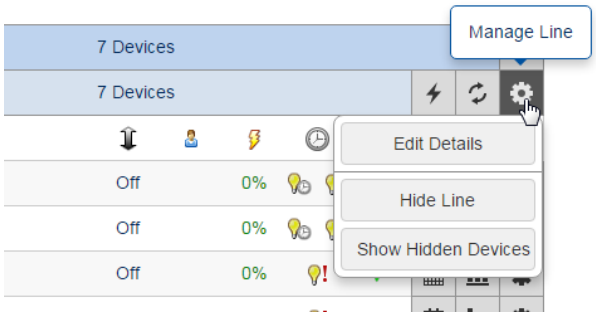
8.11.2. Shallow and Medium Scan

Because the shallow and medium scan can cause delays if a Logical Area is triggered, by a physically connected device to DALI like e.g. DALI XC, the scan time can be modified.

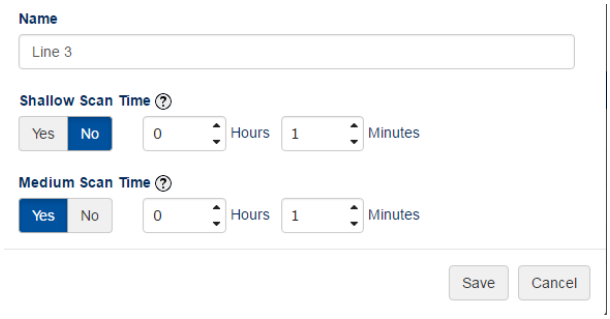
connecDIM Site Settings

Image	Description
	Settings for shallow and medium scan can be found in Management/Site Settings Depending on the needs of your site now you can decide how often the scans should be executed. Time for shallow scan and for medium scan can be programmed separately **Faster interwalls** +higher resolution of the data send to cloud -higher internet traffic -higher risk of delays in LA **Slower interwalls** +lower internet traffic +lower risk of delays in LA -lower data resolution
	Shallow Scan is needed for general failure checking and status update Following parameter are send to the cloud during shallow scan: _ how many devices are connected _ are there any failures _ what is the actual light level
	Medium scan is needed for device synchronization Medium scan has the same functions like the shallow scan but it collects also additional information like Scene settings or min/max Level and reports them to the cloud. Medium scan is also executed on every reboot of the connecDIM GW.
If high data resolution in cloud, and Logical Areas (triggered by physically connected devices) are required. Shallow and Medium scan can be disabled for the DALI Line where the Trigger of the Logical Area is connected to.This will improve the reaction time from the Logical Area and lower the risk of delays.	

connecDIM Site Settings

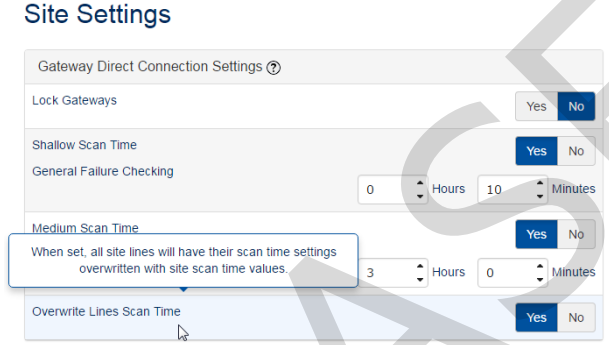


To change the shallow and medium scan times for a specific Line go to Manage Line / Edit Details



In the new Window you can change the settings for shallow and medium Scan

Attention if settings for shallow and medium scan are changed on line level then the settings programmed in Site Settings will not be programmed to this line.

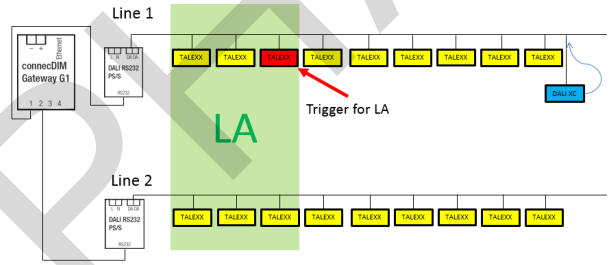


To change the individually programmed times on Line basis

Overwrite Line Scan Time has to be selected in Site Settings.

Overwrite Line Scan Time will overwrite the time settings for shallow/medium scan of all GW registered to your site with the values programmed in Site Settings.

Example



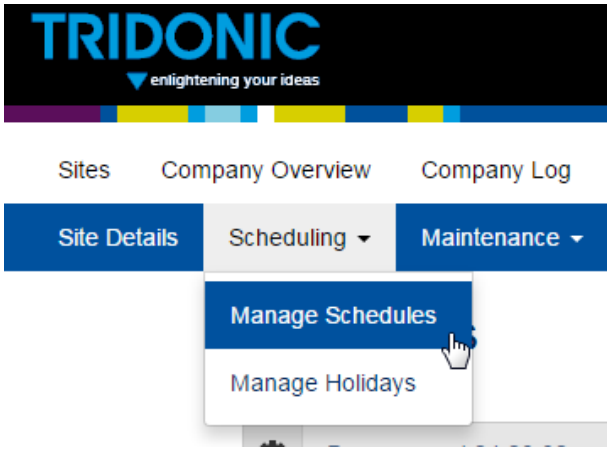
Trigger for LA is on Line 1 and is triggered by an DALI XC

LA is part of Line 1 and Line 2
to minimize the risk of a delay for the LA the Shallow and Medium scan are disabled for Line 1.

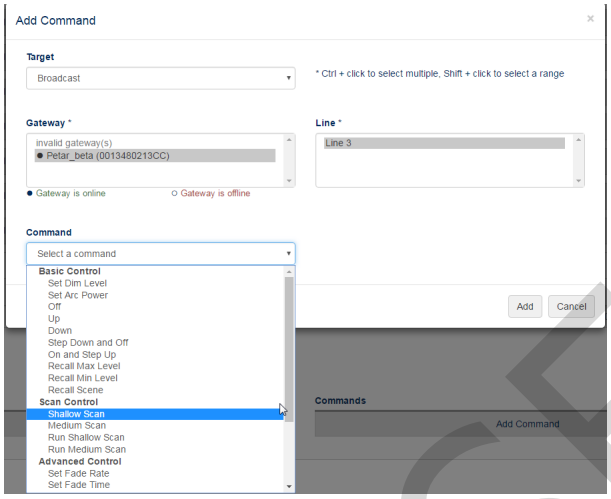
Shallow and Medium scan still can be enabled for Line 2.

To still be able to monitor Line 1
the Scheduler offers the opportunity to activate Shallow and Mediums scan for specific times e.g. when nobody is in the installation and the LA will not be triggered by e.g. an DALI XC so it is not important if the delay in the LA occurs.

connecDIM Site Settings



To open the Scheduler menu go to Scheduling / Manage Schedules



In the new Scheduler select Broadcast as Target

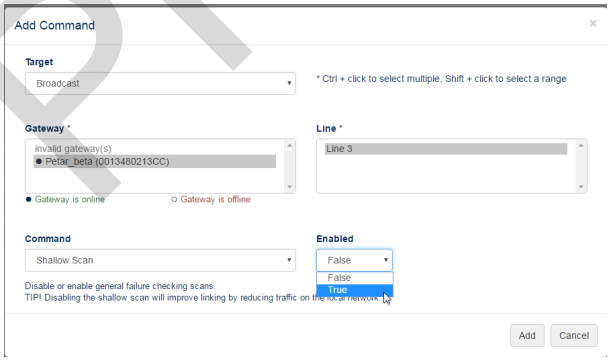
Select the GW where the Trigger is located

Select the Line where the Trigger is located

In the Commands the Scan Control commands are now available.

There are four options

- Shallow Scan
  - The shallow scan will be executed according to the Times programmed in Site Settings
- Medium Scan
  - Medium Scan will be executed according to the Times programmed in Site Settings
- Run Shallow Scan
  - Shallow Scan will be executed according to the programmed time in the Schedule
- Run Medium Scan
  - Medium Scan will be executed according to the programmed time in the Schedule



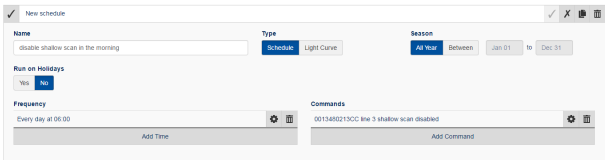
Shallow Scan

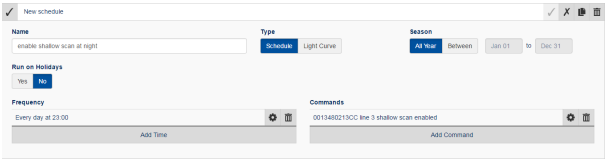
- The shallow scan will be executed according to the Times programmed in Site Settings

Two options are available True and False:

- If True is selected Shallow Scan will be enabled and the times programmed in Site Settings will be activated.
- If False is selected Shallow Scan will be disabled for this line

connecDIM Site Settings



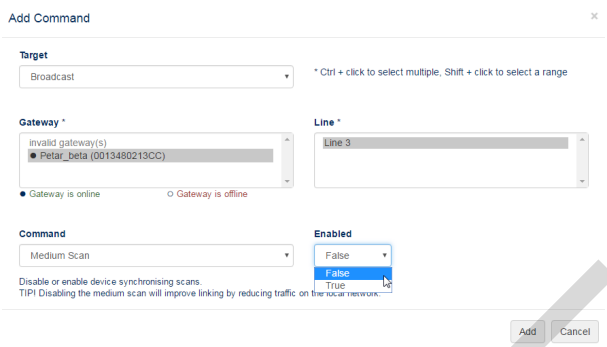


e.g. Shallow Scan is activated to the whole site but you have a LA and do not want to run in a risk to have delays and would like to disable the Shallow Scan during the operating hours

In This case you have to program two Schedules:

- One with the False Value which will deactivate the Shallow Scan like in this example at 6:00
- And one with the True Value to activate the Shallow Scan again in this example at 23:00

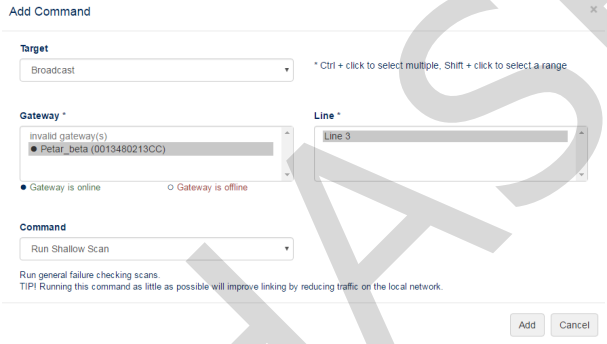
This means that the Shallow Scan will be disabled from 6:00 to 23:00 and it will be activated from 23:00 to 6:00



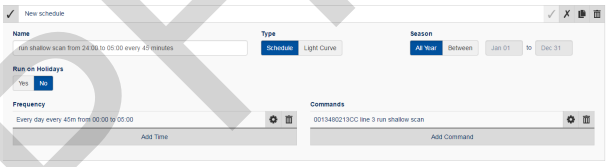
- Medium Scan
  - Medium Scan will be executed according to the Times programmed in Site Settings

Two options are available True and False:

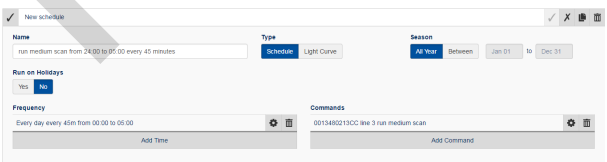
- If True is selected Medium Scan will be enabled and the times programmed in Site Settings will be activated.
- If False is selected Medium Scan will be disabled for this line



- Run Shallow Scan
  - Shallow Scan will be executed according to the programmed time in the Schedule



e.g. like in this example programmed the shallow scan will be executed every 45 minutes between 24:00 to 5:00



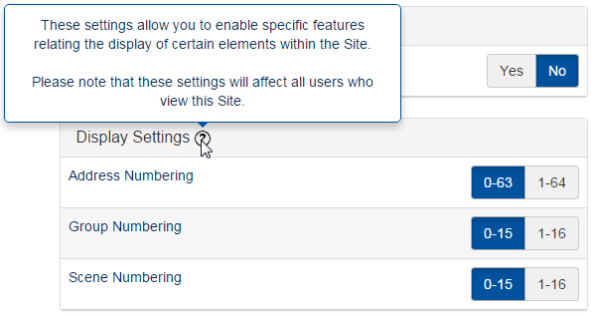
- Run Medium Scan
  - Medium Scan will be executed according to the programmed time in the Schedule

In this example the medium scan will be executed every 45 minutes between 24:00 and 5:00.

connecDIM Site Settings

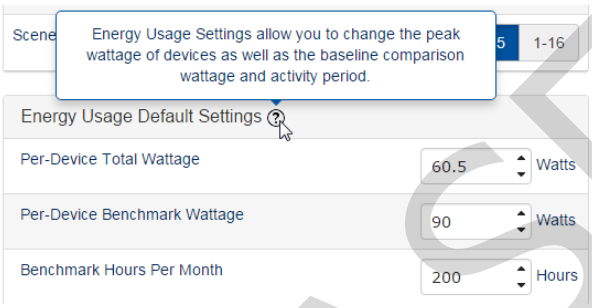
8.11.3. Display Settings

Display settings allow you to change the numbering in the Cloud. DALI always starts counting from zero, but most people start to count from one. Here the numbering can be changed.



8.11.4. Energy Usage Default Settings

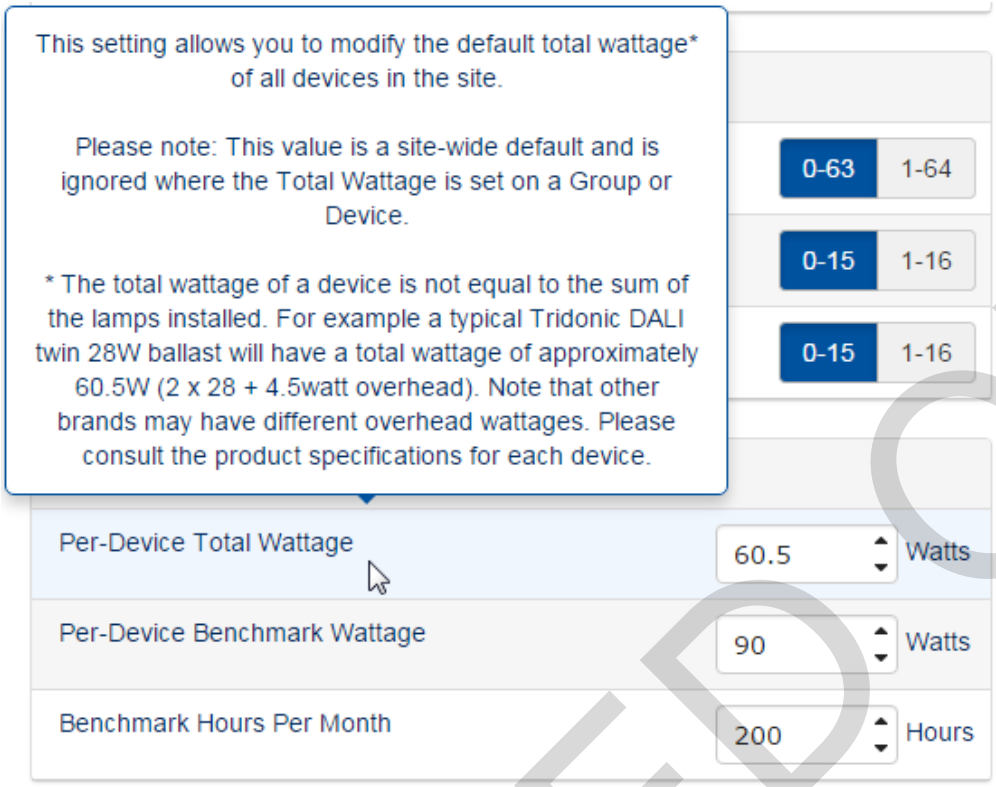
Energy Usage Settings allow you to change the peak wattage of devices as well as the baseline comparison wattage and activity period.



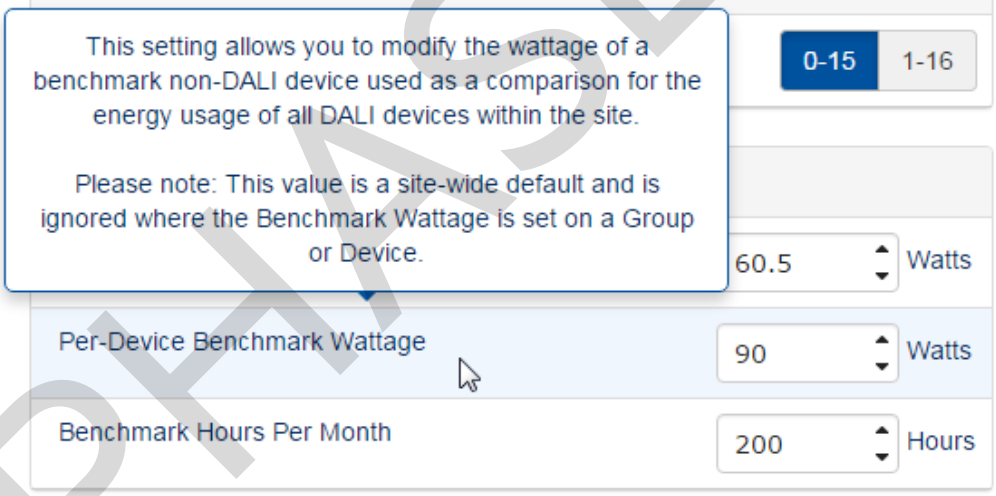
Actually there are three different settings you can change:

connecDIM Site Settings

Per-Device Total Wattage

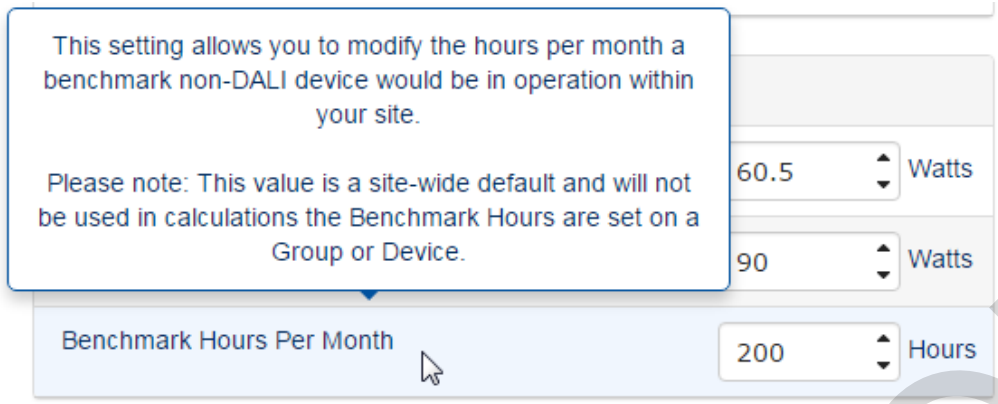


Per-Device Benchmark Wattage

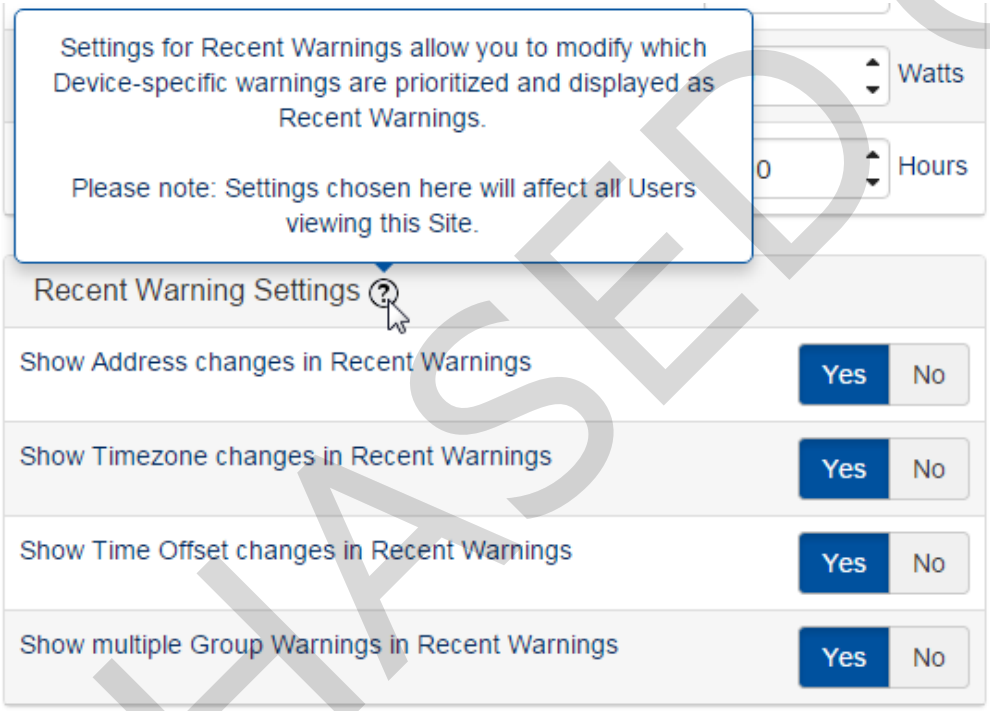


connecDIM Site Settings

Benchmark Hours Per Month

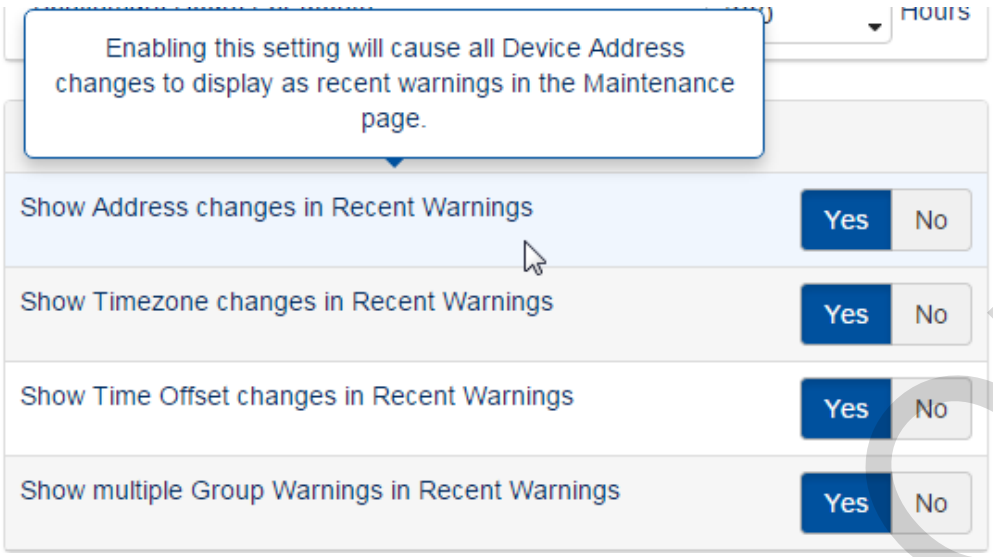


8.11.5. Recent Warning Settings

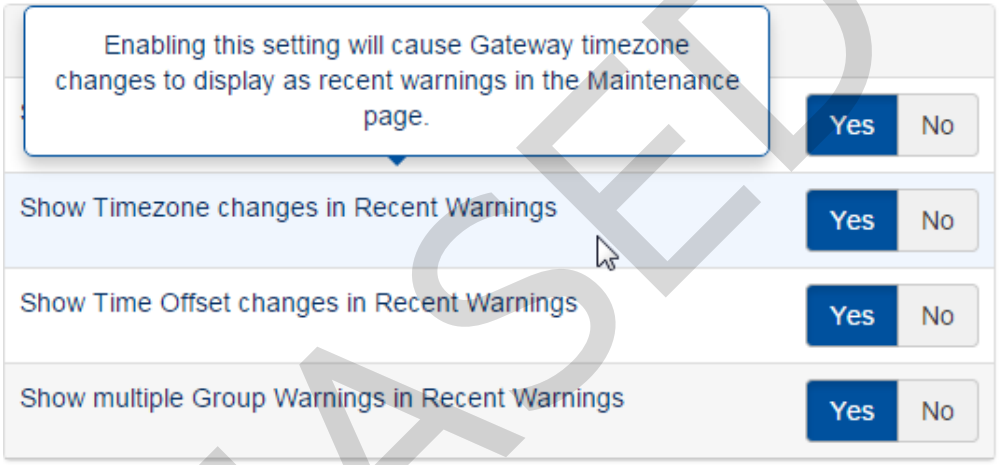


connecDIM Site Settings

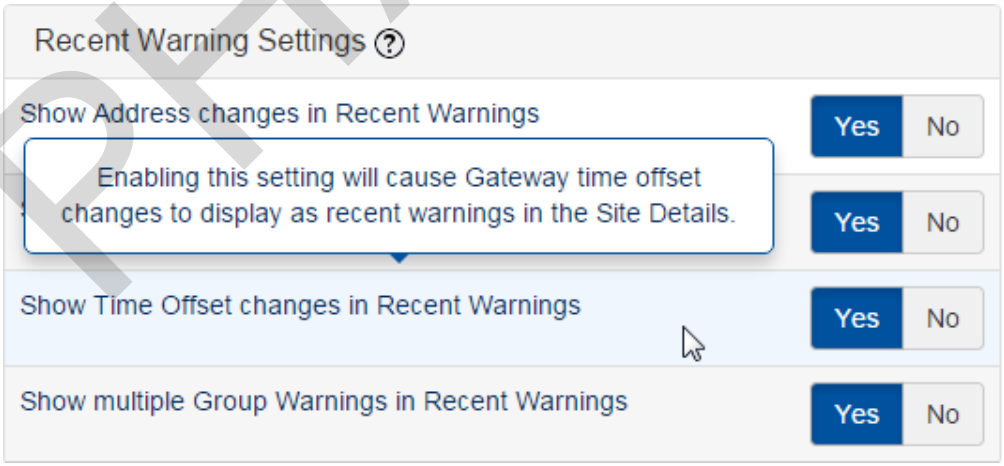
Show Address changes



Show Timezone changes

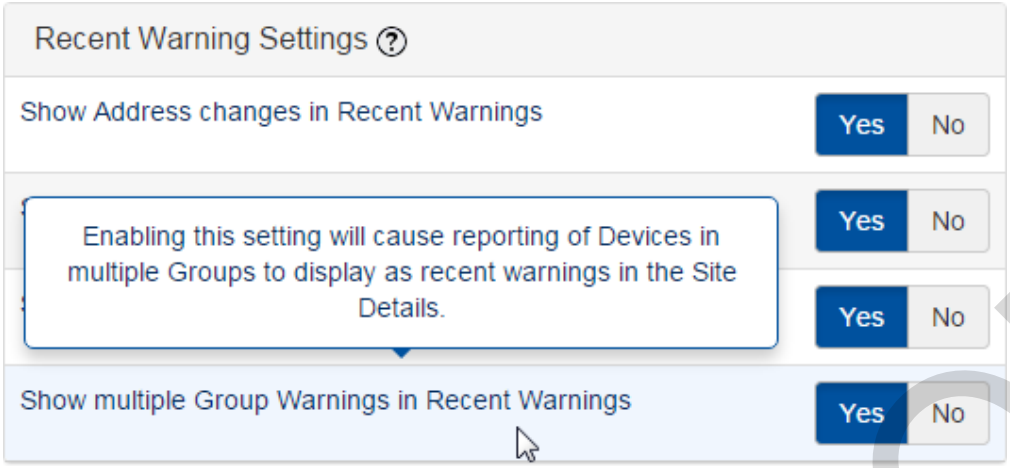


Show Time Offset changes

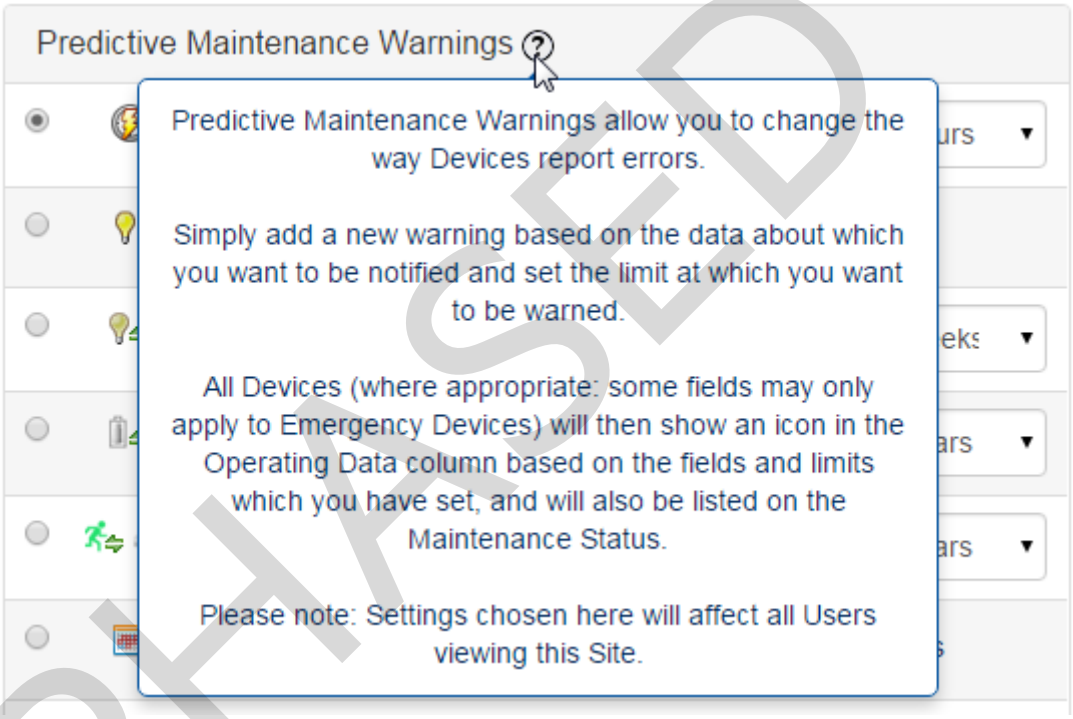


connecDIM Site Settings

Show Multiple Group Warnings



8.11.6. Predictive Maintenance Warnings

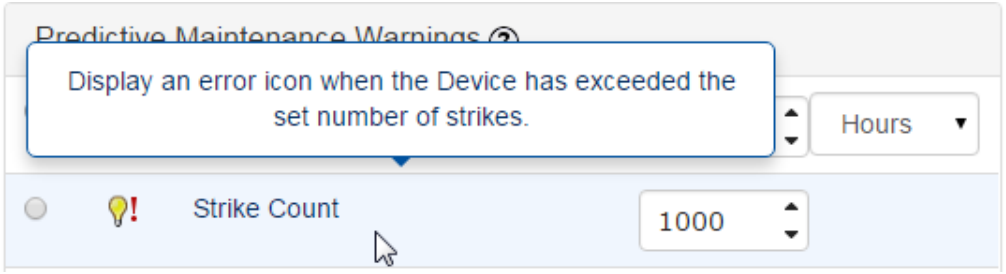


Power Outage

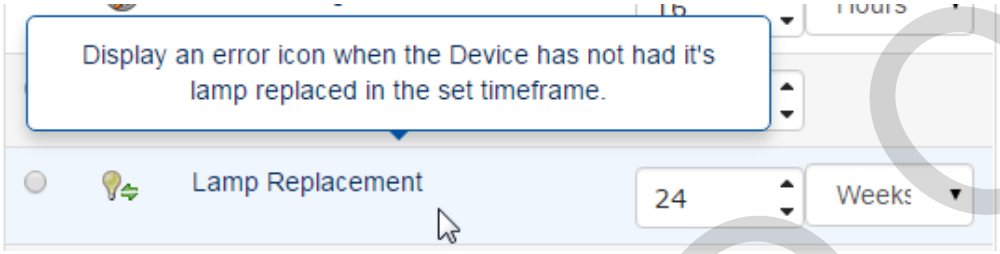
The emergency device has been without mains power within the time frame specified in the Predictive Maintenance settings.
More information can be found in chapter Power Outage, S. 83.

connecDIM Site Settings

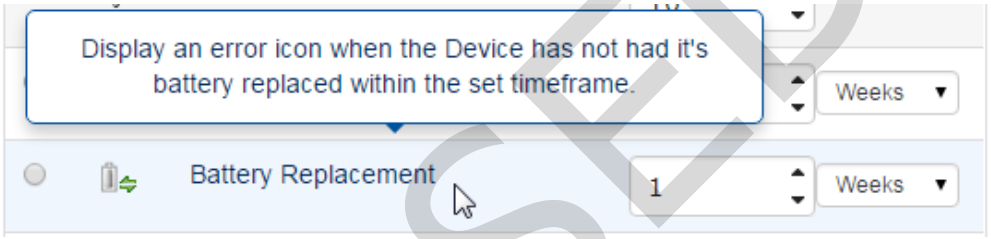
Strike Count



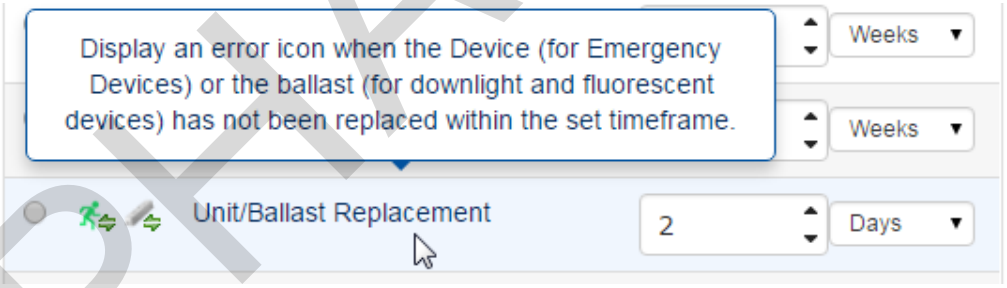
Lamp Replacement



Battery Replacement

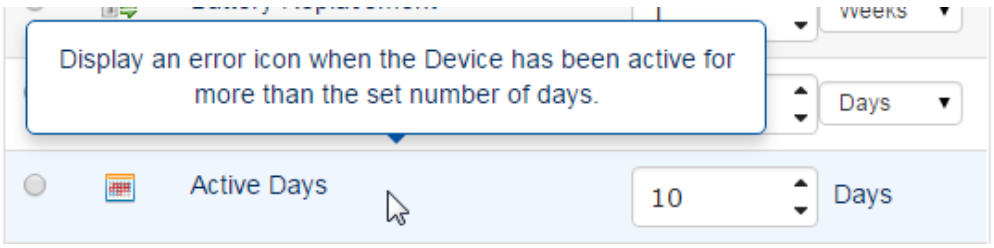


Unit/Ballast Replacement

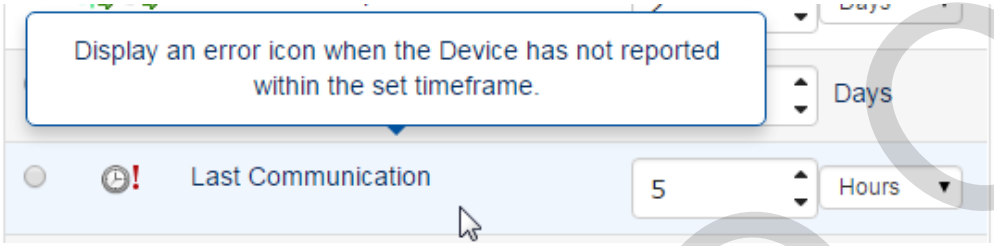


connecDIM Site Settings

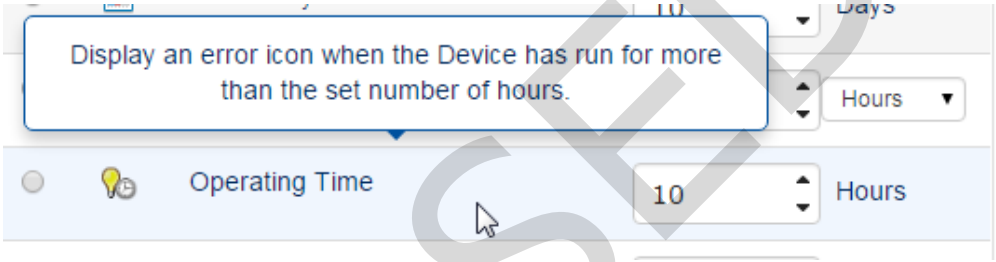
Active Days



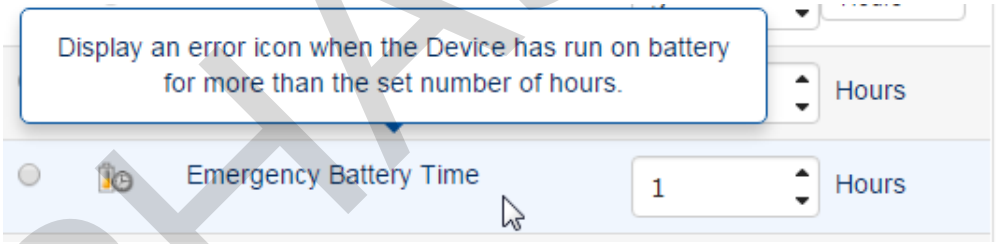
Last Communication



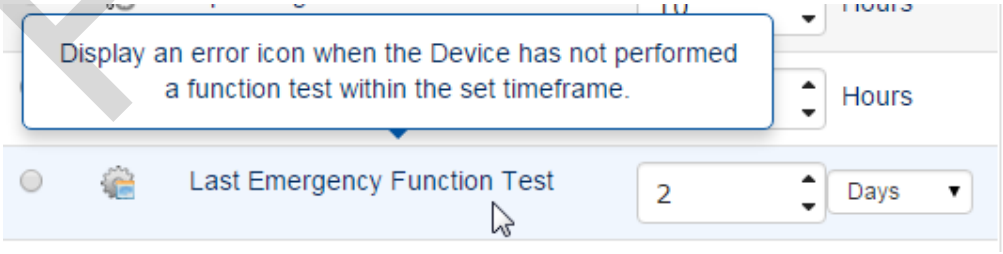
Operating Time



Emergency Battery Time

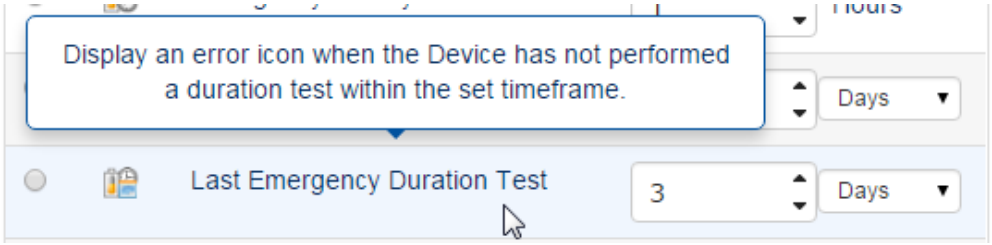


Last Emergency Function Test

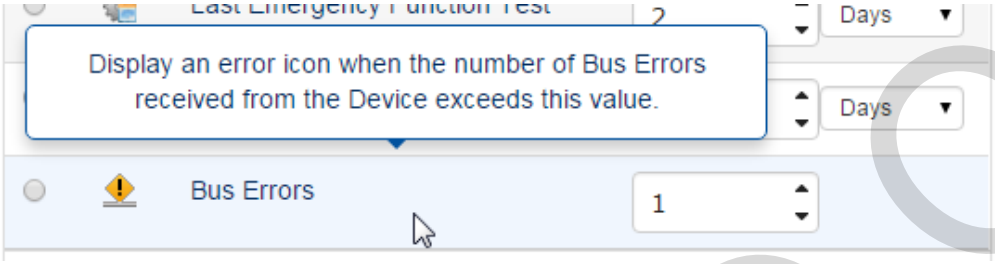


connecDIM Site Settings

Last Emergency Duration Test

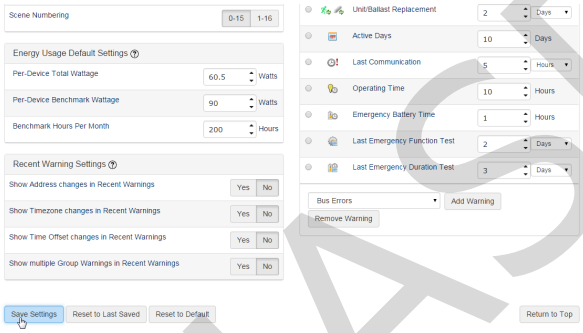


Bus Errors



8.11.7. Save Site Settings

Once you have made all your settings, select Save Settings at the bottom of the Page.



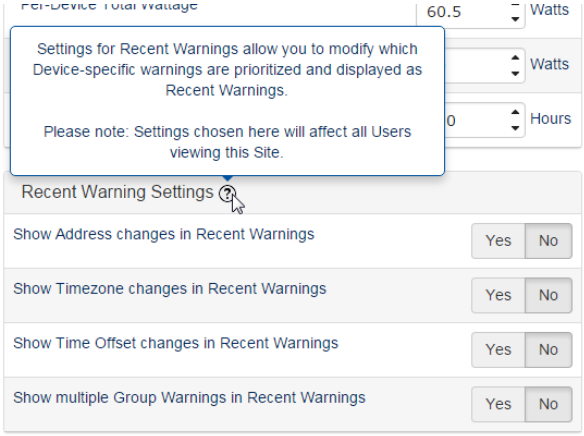
It is also possible to reset the settings to the last saved state

or to reset it to default

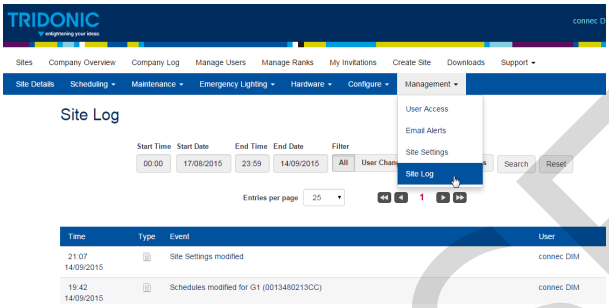
connecDIM Site Settings

8.12. Site Log

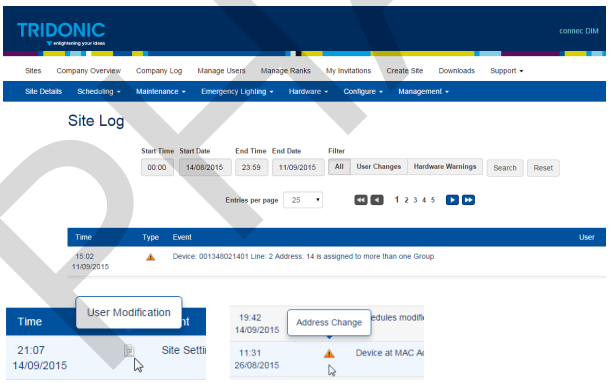
Site log shows the recent Warnings which have been selected in the Site Settings (Management/Site Settings).

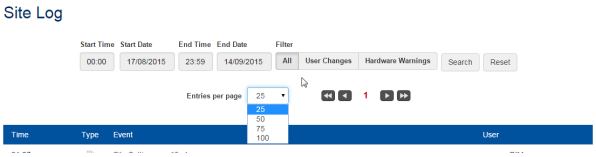


Select Site Log in the Management drop down menu.



Now you can see the log for the site. It is possible to filter between All, User Changes and hardware warnings. Also, it is possible to filter the start and end date and time. Entries per page can also be selected between 25, 50, 75 or 100 for each page. Different logs do also have different symbols for User Changes and for Hardware Warnings.

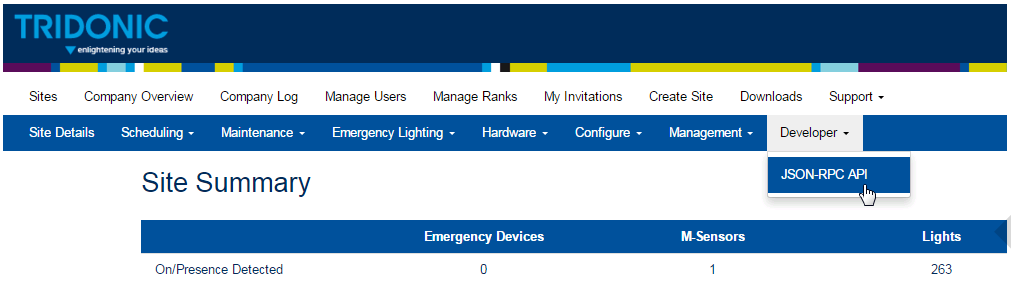




JSON-RPC API configurator

Create own JSON-RPC commands and control light remotely.

Function can be found under Developer/JSON-RPC API



CAUTION!

JSON-RPC commands can not be used if the GW is locked (management/site settings).

9.1. Change GW IP via JSON-RPC

Change the IP of the GW via JSON-RPC. Use following code to change the IP of your GW

http://111111111111.local/cgi-bin/json.cgi?json={"method": "configurenetwork", "params":[{"ip":"222.222.222.222", "gateway":"333.333.333.333", "netmask":"255.255.255.0"}], "id":1234}

Take care the code is case sensitive

- 111111111111 = MAC Address of the GW you would like to change the IP
- 222.222.222.222 = New IP address for the GW
- 333.333.333.333 = IP of your router
- 255.255.255.0 = Netmask

The programmed IP will get lost after a GW reboot and the GW will get again an IP given by DHCP.

9.2. Change Proxy via JSON-RPC

Read:

{"method": "configureproxy", "params":[{"action":"read"}], "id":1234}

Configure:

{"method": "configureproxy", "params":[{"serverip":"111.111.111.111", "port":"333", "username":"myusername", "password":"mypassword"}], "id":1234}

111.111.111.111 = IP of your proxy server
myusername = your username
mypassword = your password

JSON-RPC API configurator

Disable:

{"method": "configureproxy", "params":[{"action":"disable"}], "id":1234} `

Download and Use the connecDIM Apps

To download the apps go to the app store and type in connecDIM in the search field.

10.1. connecDIMLite

- Wireless control of your lights
- For small home installations up to multi-level buildings
- Controls tailored to your devices
- Device names will be taken from the connecDIM cloud
- Available for iPhone, iPad, iPod and Android

Download

Download

Download and Use the connecDIM Apps

10.2. connecDIMArchitect

- Intuitive wireless commissioning of any size DALI system
- On-site luminaire identification
- Easily configure DALI devices including emergency lighting and colour control devices
- Available for iPhone, iPad and iPod Touch

Download on the App Store

Download

Cloud Security

11.1. Risks of Opening a Site to the Internet

The most common way that system integrators access a site remotely is to open a hole in the firewall. An incoming hole in your firewall gives the system integrator a path to connect into the system remotely and change or control a dedicated computer on site.

An incoming hole in your firewall opens a security risk. With a hole in your site's firewall, a hacker can use this to damage your installation.

By not opening any incoming ports on your firewall, you protect your building. There is no open security hole.

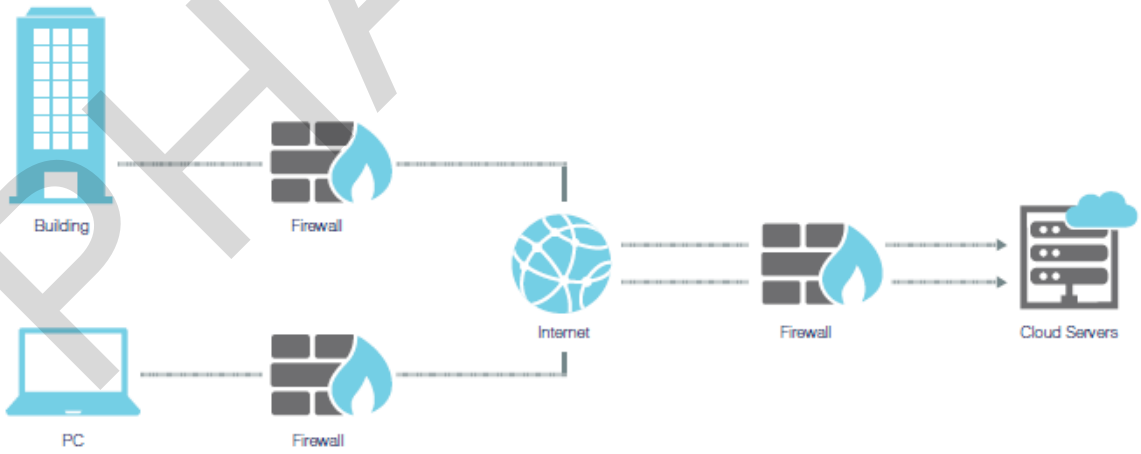
But how do you allow access to your site without opening up a way in for them?

11.2. The connecDIM Cloud Solution

The solution for allowing access to your site and not opening a hole in your firewall is to use the connecDIM cloud.

With the connecDIM cloud, your site connects to the cloud but does not allow the cloud to initiate a connection back to it. Third parties do not connect to your site, they also only connect to the cloud.

The cloud creates a buffer of protection for your site and prevents unauthorised connections to your site.



When the IT department sets up the internet connection for the connecDIM site, it will be a welcome and pleasant surprise when they learn that are no incoming firewall ports to open.

Cloud Security

11.3. Password Security

To increase security make sure your account password secure. Keeping your password safe is a combination of best practice between the user and the cloud.

11.4. HTTPS Encryption

The connecDIM cloud implements both firewall techniques and the latest standards in HTTPs forward secrecy encryption. All information transmitted between the cloud and the web browser is encrypted to prevent sniffing.

11.5. Password Security

All account passwords are stored on the connecDIM in encrypted form. User passwords are not viewable to anyone.

11.6. What You Can Do

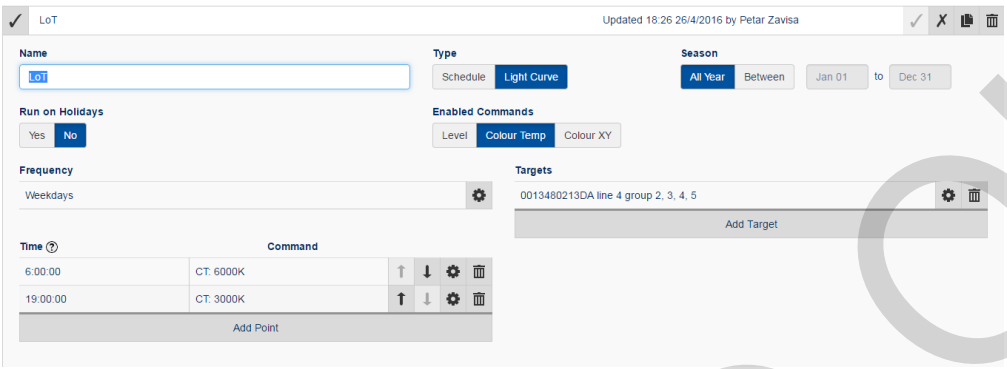
As a user don't share your password with others. Also, try not to use the same password for multiple accounts, for example if a person was to hack your Facebook account they might then try the same password on the connecDIM cloud. Try and use a combination of letters, symbols, and numbers for your password, and regularly check your computer for viruses, keyloggers, and malware.

Premium features

In addition to all the free features connecDIM has also premium features to offer. Premium features are only available on request. To get more information please contact your local Tridonic support.

12.1. Light Over Time

Allows to create light over time colour temperature and dim level curves without the need of creating a lot of schedules.



Documentation Version History

Date	Version	Comment
November 2018	2.1	BETA Features and Terms of Use added
July 2018	2.0	Delete Devices feature implemented
March 2018	1.9	Small updates and additions
February 2017	1.8	Small updates and additions
May 2017	1.7	Email Alerts updated
February 2017	1.6	Logical Areas and Schedules updated
November 2016	1.5	Emergency how to download report
October 2016	1.4	Updated MSensor Linking
June 2016	1.3	New function described in Release notes 19.07.2016 implemented to documentation
January 2016	1.2	Chapter 4.1 updated
November 2018	2.1	BETA Features and Terms of Use added
December 2015	1.1	Logical Areas updated
November 2015	1.0	First official version