SEAK | LIGHTING CONTROL & ENERGY EFFICIENCY MANAGER

Configuration Guide for the Control Unit LUMiMASTER SLC-NOM

version FW 20180710

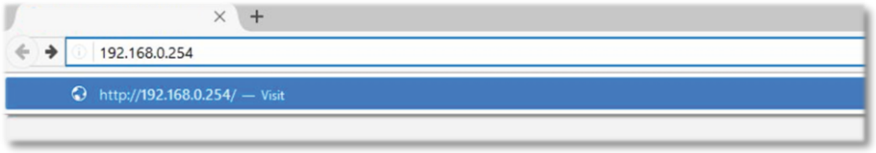
Content

Status of LED indicator

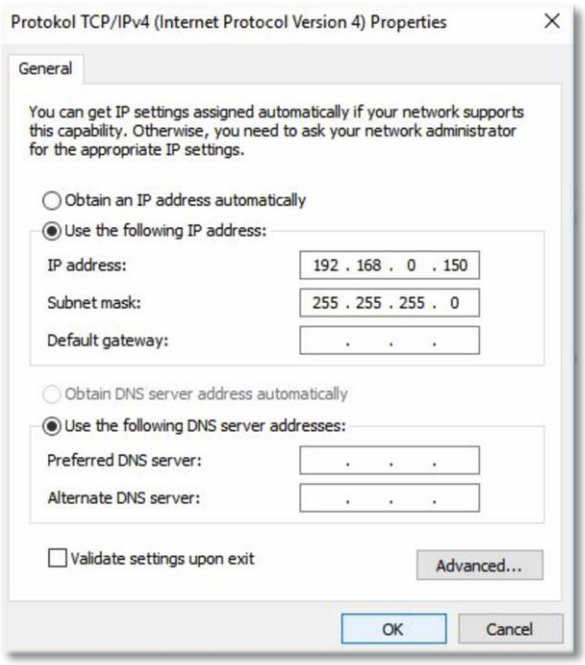
Green	Yellow	Red	Status
Light	One flashing	No Light	Operating system starting
Light	One flashing	Light	Start failed (bad firmware/damaged flash)
Light	Twice flashing	No Light	Falcon running
Light	Twice flashing	Light	Falcon running, communication error with external devices
Light	Light	Light	Stuck/Severe error/After starting
Light	No Light	No Light	Stuck/Severe error/After starting
Light	Light	No Light	Stuck/Severe error/After starting
No Light	No Light	No Light	The supply voltage is missing

1 How to Connect to LUMiMASTER

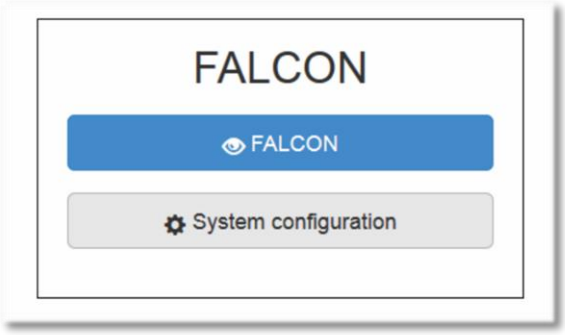
Log in to the LUMiMASTER SLC-NOM through LAN cable. Launch your web browser (Chrome is recommended) and type in the default address 192.168.0.254 and enter.



If you have a problem with connecting, check the configuration of Internet Protocol Version 4 (TCP/IPv4). IP address and subnet mask must be set according to this picture.



After a successful connection, you see in your browser the introduction window of Falcon web interface. It has two separately functioning parts: System configuration – set up system features and Falcon – lighting control



Open tab “System configuration” and fill in the registration data:

- as administrator - name: admin password: [rturocks] (please always change the default password for security reasons)

- as operator– name: op password: compact

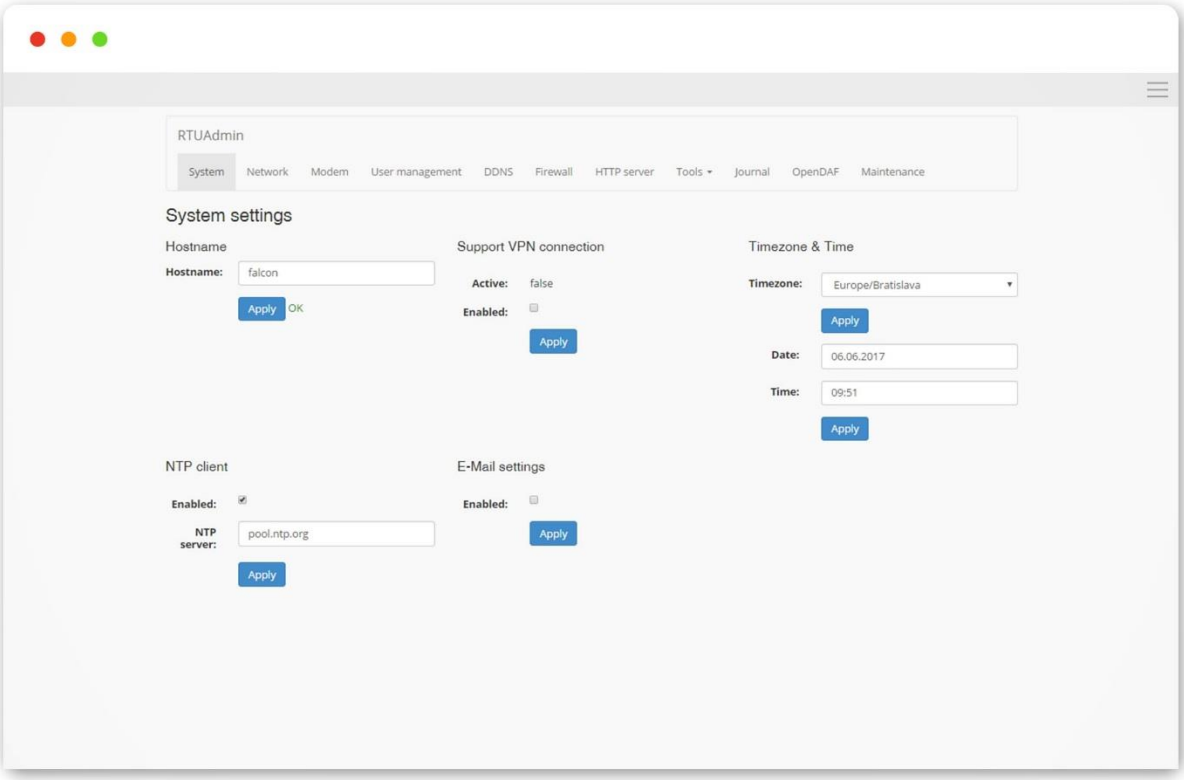
After successfully login, a section of system settings will be opened.

2 Adjustment systems

2.1 System tab

In this tab you can set up:

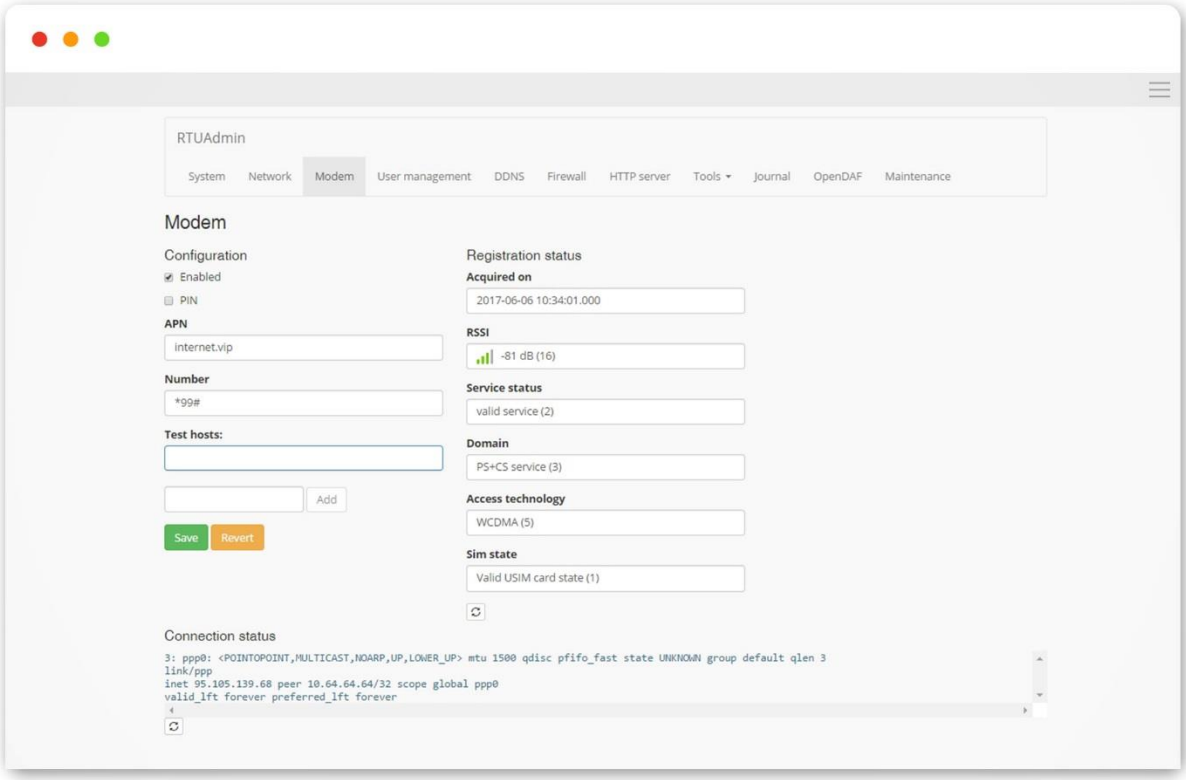
- Timezone & Time – set up the time zone and the current time
- NTP client - set up the Internet time server
- E-mail settings – set up a mail to send messages about alarms. Fill in “Mail server”, “Port”, “User” and “Password”. Other windows do not need to be filled in as this information is filled directly in Falcon in the "Messaging" tab.



2.2 Modem tab

You need to enter configuration of GSM modem if you want to use SIM card. You must have an active data SIM card with a dynamic public IP address or static IP address, which is preferred, but if not available, it is also possible to use DDNS service to work around it. GSM provider must allow inbound TCP/IP connections to the SIM card. LUMiMASTER is using Standard SIM size.

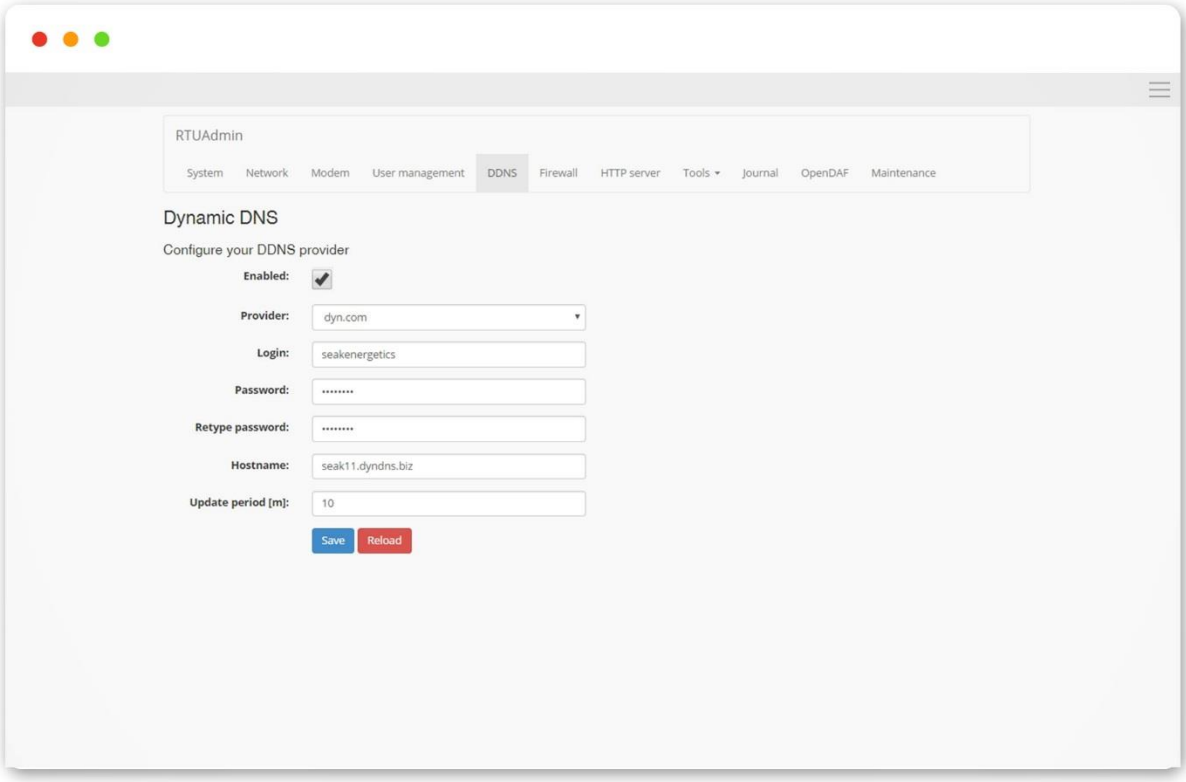
To configure GSM Modem, the SIM card must be inserted already. (Insert the SIM card while LUMiMASTER is powered off.) Check "Enabled" to allow communication over GSM. If the card is protected by the PIN code, check window „PIN“ and fill in PIN code. (We recommend using a SIM card without PIN blocking). Fill in window „APN“ (provided by the operator) confirm „Save“ and wait for the connection using by ppp0. After successful connection, if you use a SIM card with a static IP address, you can connect to the LUMiMASTER by IP assigned address. If you are using a SIM card with a dynamic public IP address, you need to fill in the DDNS tab.



2.3 DDNS tab

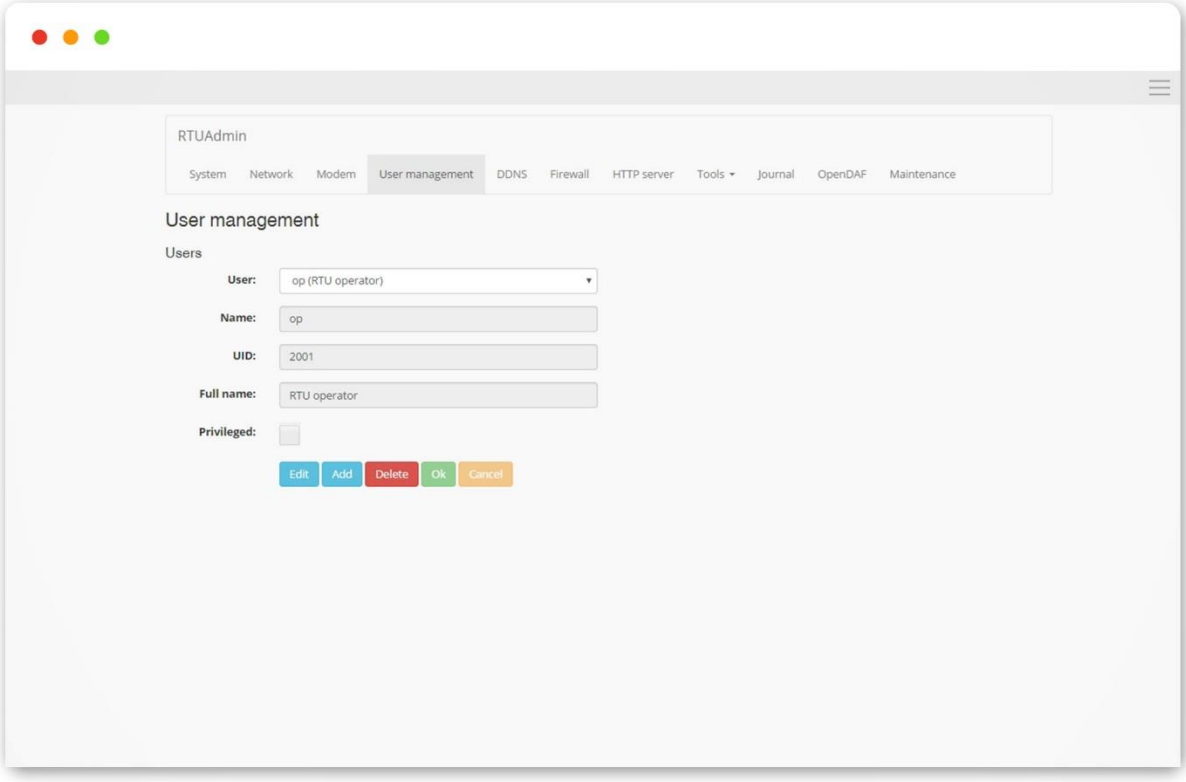
Dynamic DNS (or DDNS) allows connecting to Lumimaster even if we do not have static IP address associated with the SIM card. In order to use it, you need to create account at one of the DDNS providers (dyn.com or noip.com).

If you have created a DDNS server account, after selecting "Enabled" you need to fill in the relevant information. Once the data has been completed and validated, after login to the network it is possible to connect to the unit (in this case the IP address is seak1.dyndns.biz). The connection depends on the time set in the "Update period" window, which determines how often (in minutes) the SIM card updates its current IP address. Keep in mind that you need to wait this interval also after power failure to connect.



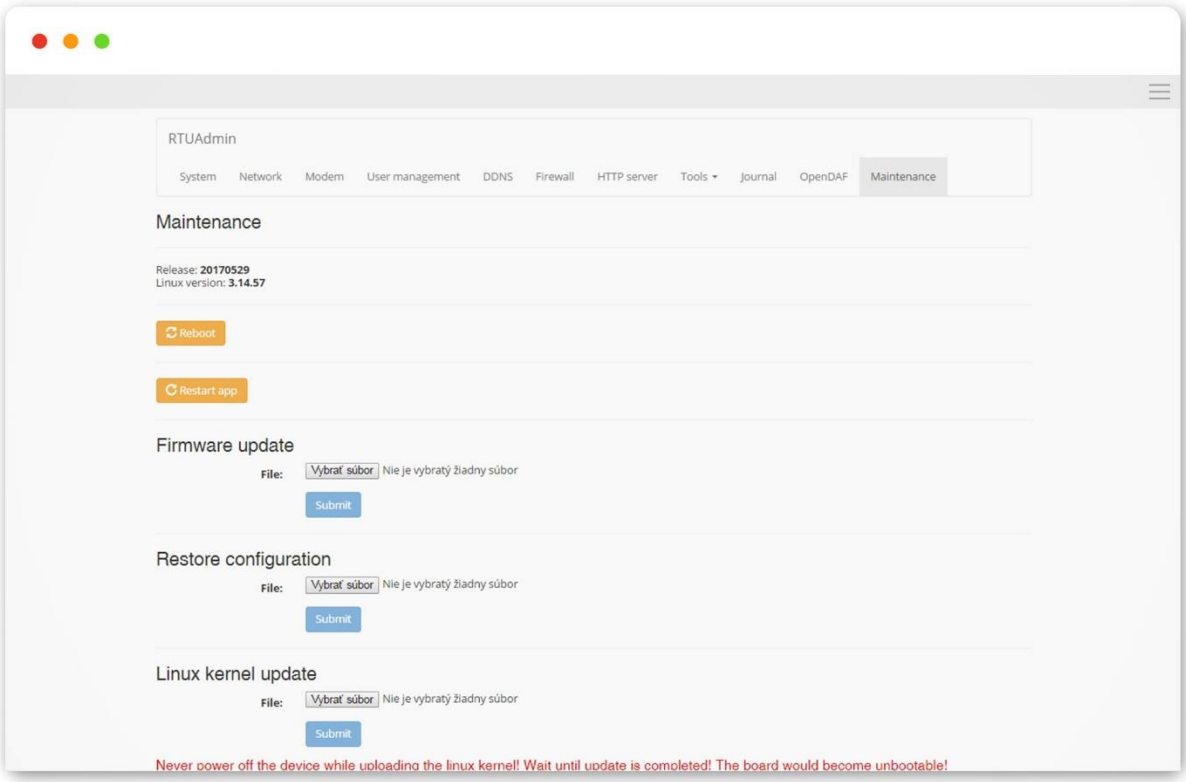
2.4 User management tab

This tab allows to change the access data (login, password) for administrator and operator. For security reasons, we recommend that you change your login password after first log in.



2.5 Maintenance tab

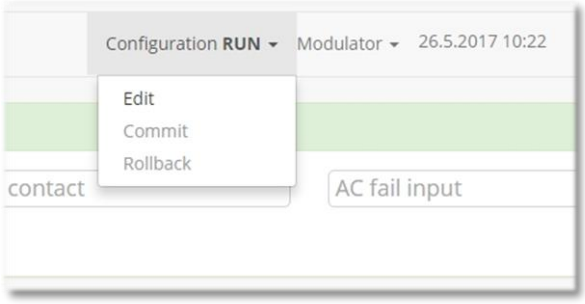
It allows to upgrade the firmware and check the current firmware version. You can find the upgrade manual after opening this link.



3 Lighting control configuration

3.1 Main tab

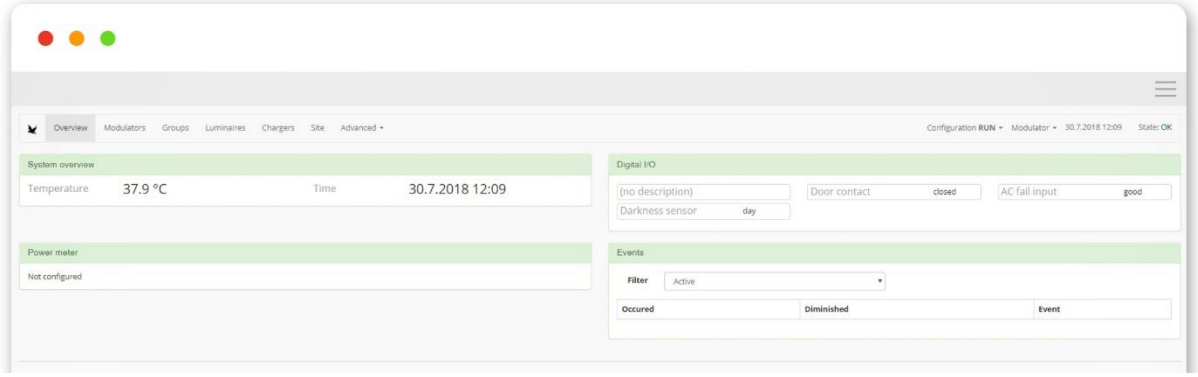
In all tabs it is possible to make certain changes to the settings. In tabs Overview, Communications, Modulators, Groups, Luminaires, Remote IO, Digital Inputs a Alarms you make changes by activating Configuration Edit mode. In other tabs SSR, Scheduler, Astroclock, Rules, Messaging and Site you make changes the settings directly on the tabs in Configuration Run mode.



3.2 Overview tab

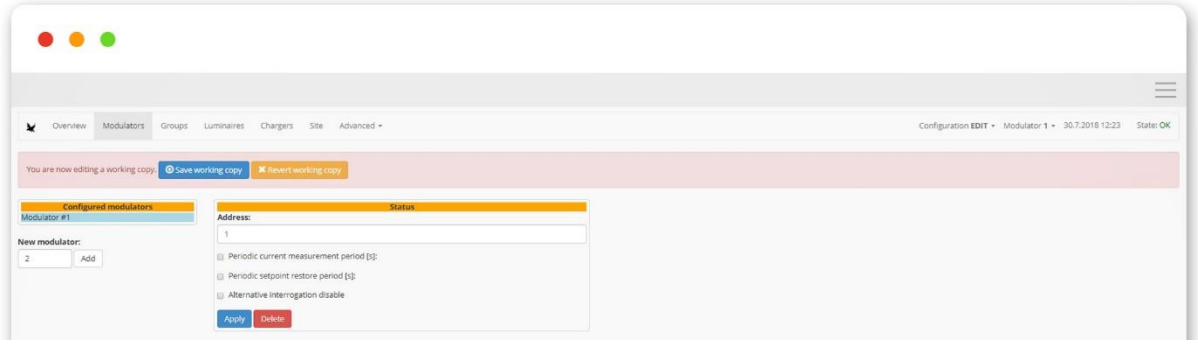
You will see this information:

- System overview – temperature in the cabinet if you have a temperature sensor (DS 18S20 +) and the current time and date.
- Digital I/O – configured digital inputs and their status.
- Power meter - via the configuration setting it is possible to connect and display digital type electrometers types as Elnet and Satec after Modbus RS485. Through the digital input it is possible to connect any pulse electric meter, where it is also possible to set its number of pulses. When you configure, the power meter must not be assigned the same addresses as modulators.
- Events – list of alarm events



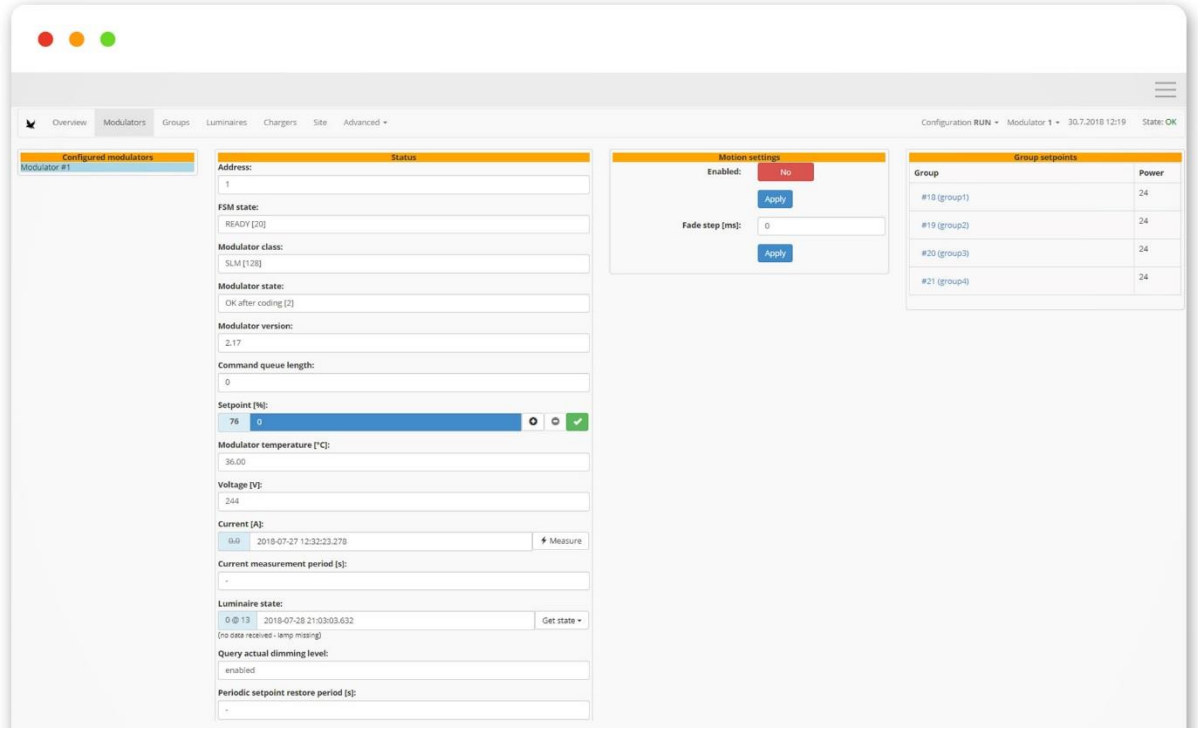
3.3 Modulators tab

Through the status Configuration Edit, you add the modulators. After adding the modulator, it is possible to set the value of the periodic measurement of the electric current and periodic setpoint restore period in seconds. This is especially useful when you use StreetLite to keep this value up to date.



Once added, a window appears with a list of configured modulators "Configured modulators", „Status“ with the status of modulator, Actual values of the measured quantities. You can send

broadcast commands or control luminaire status there (the display in this window is dependent on the type of connected modulator and type of communication - one way or two way) and „Group setpoints“, where the group of luminaires and their currently set value are displayed. In this tab you can configurate characteristics, when motion will be detected. You find detailed manual for motion settings after opening this link.



State of modulation unit (modulator state) is indicated by a code. Overview of all codes is shown in this table:

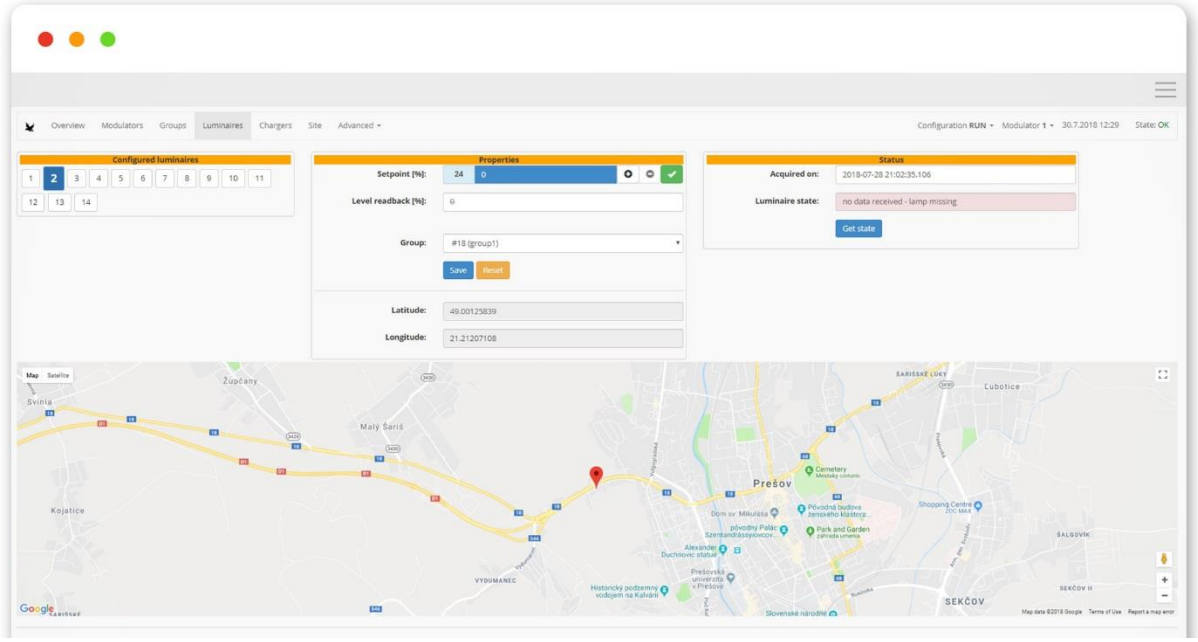
State code	State	Description
0x01	Ok	The device is ready for coding
0x02	Ok after coding	This code is returned at the first request on state of successful coding
0x03	Overheat during coding	This code is returned if the device was overheated during coding, thus the coding was not successful.
0x04	Coding	This code is returned if the coding has not finished yet and there is no error
0x05	Overheat	Information of an overheated device. It is necessary to wait for its cool-down
0x06	Missing power supply	Information that there is no power supply connected to the power modulators
0x07	Other error	Other specified problem
0x08	Modulator error	Hardware problem on some of the modulators or an overload
0x09	Measuring	Device is measuring current or receiving luminaire response
0x0A	Overheat after coding	This code is returned if the device was overheated after successful coding. After read, state changes to 0x0005 - Overheat.
0x0B	Overvoltage	Information that was measured overvoltage (voltage over 260V). It is necessary to wait for normal voltage
0x0C	Overvoltage after coding	This code is returned if the device measured overvoltage after successful coding. After read, state changes to 0x000B - Overvoltage.

3.4 Groups tab

It allows to create, edit and directly control of groups of luminaires.

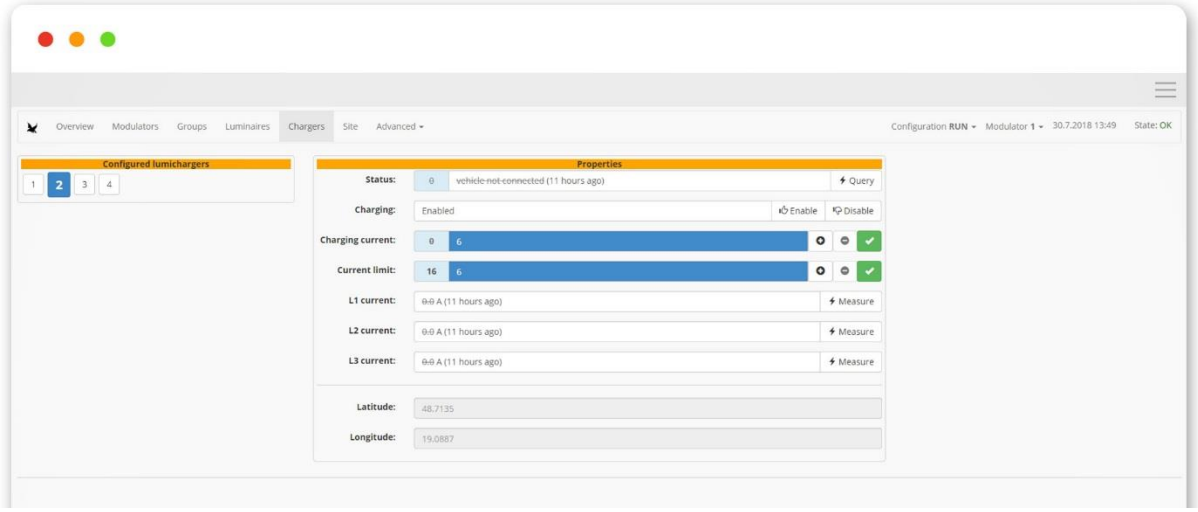
3.5 Luminaires tab

It allows to add and edit individual luminaires, allocate them to groups, check their status, save them on the map via GPS coordinates and control.



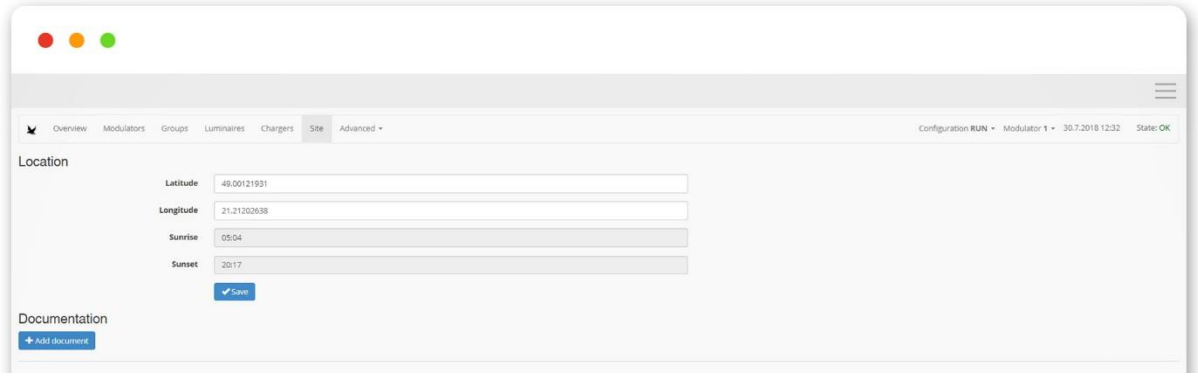
3.6 Chargers tab

It allows to configure and monitor the status of EV chargers, enabled/disable charging, set up maximum charging current and current limit and measure of current on all lines.



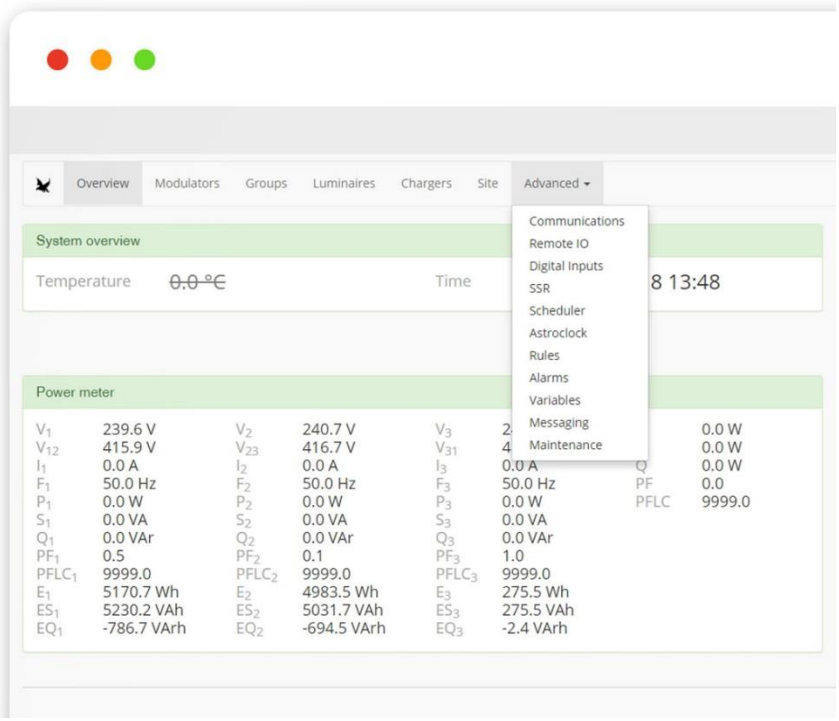
3.7 Site tab

By entering and confirming the GPS coordinates of the cabinet, Falcon automatically displays the sunrise and sunset astronomical time.



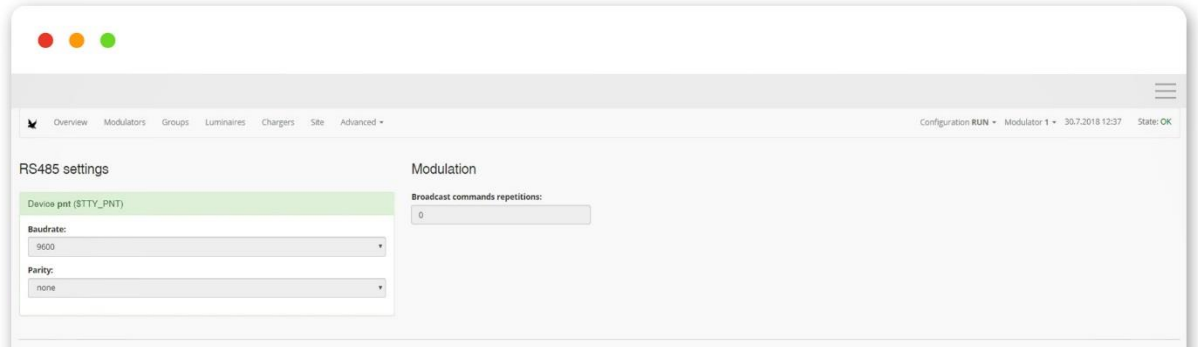
3.8 Advanced

In tabs Advanced is possible to make certain changes to settings in this tab:



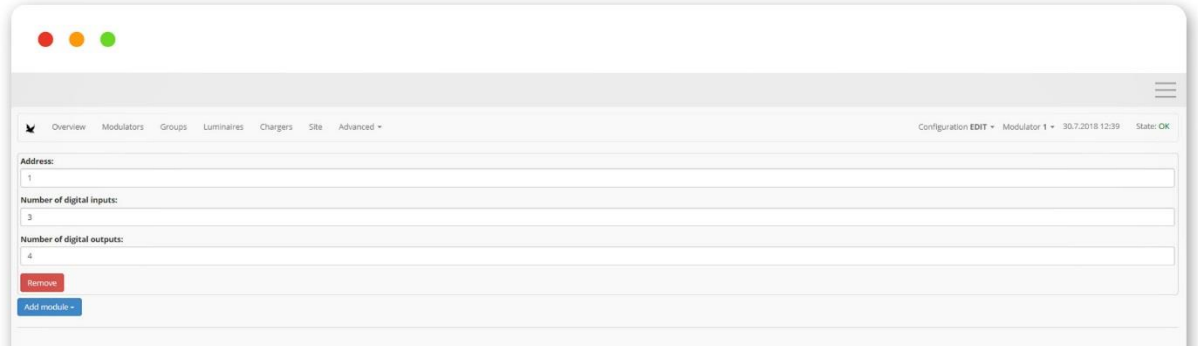
3.8.1 Communications tab

It allows to setting RS485 communication values. Due to high network interference is a probability that not all modulation commands will be executed. Therefore, in the Modulations tab, it is possible to set the number of repeating modulation commands.



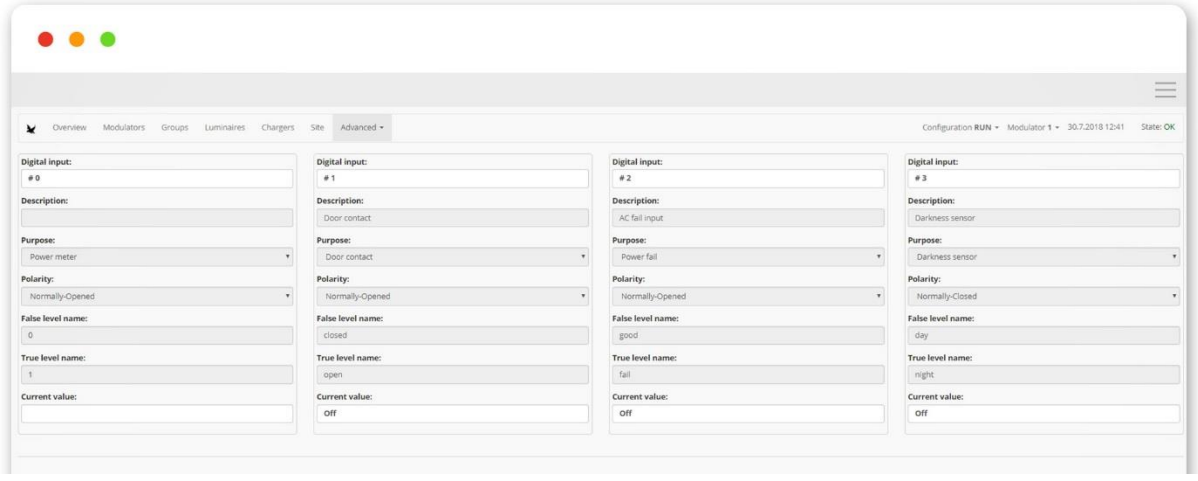
3.8.2 Remote IO tab

Most common IO modules available on the market can be connected to the unit. In this tab you add IO modules as well as the number of their digital inputs and outputs. Their list is displayed in the "Digital inputs" tab or "SSR" tab.



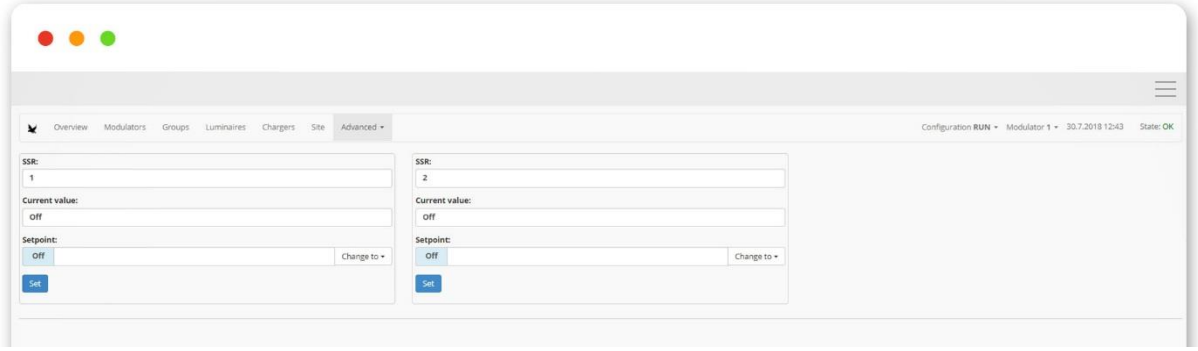
3.8.3 Digital Inputs tab

It displays 4 digital inputs of the unit (shown as # 0 - # 3) and possibly other inputs of connected IO modules displayed from # 1100. Each input can be configured separately, assign a function and polarity. If you use Streetlite, it is necessary to fill in the "Purpose" window with one of the offered options.



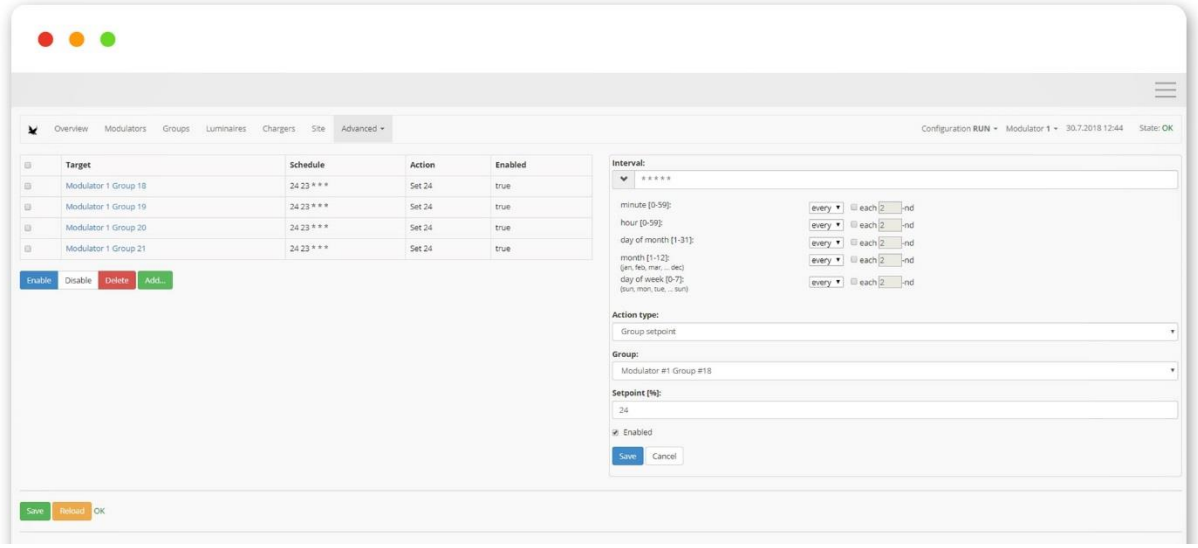
3.8.4 SSR tab

The control unit has 2 outputs for control of semiconductor or suitable mechanical relays marked as 1,2 or other outputs after connection of IO modules and marked with the number 1125.



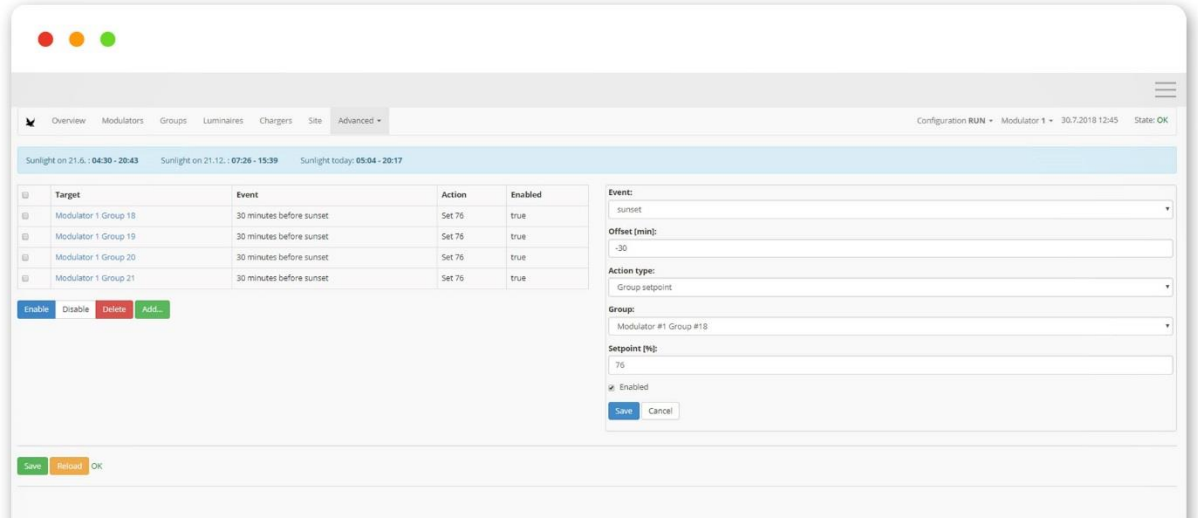
3.8.5 Scheduler tab

It allows to set up a time schedule in Cron format for: modulator, group, luminaire, temporary value for modulator, group and luminaire, SSR or digital output, light status reading, alarm activation, deactivation and management, and restoration of the last commands. The temporary command function allows you to send a command without saving, which means you will not figure out when you restore the last commands.



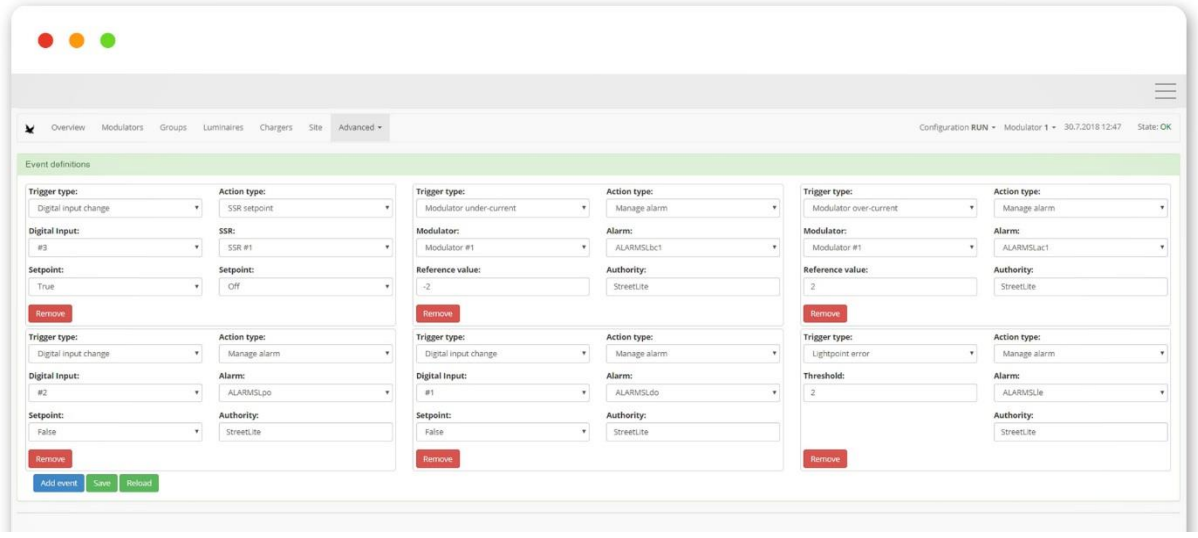
3.8.6 Astroclock tab

The basis of lighting control is astronomical sunrise and sunset. This tab allows to define rules based on sunrise and sunset times, which are determined based on GPS position of the unit defined in the Site tab.



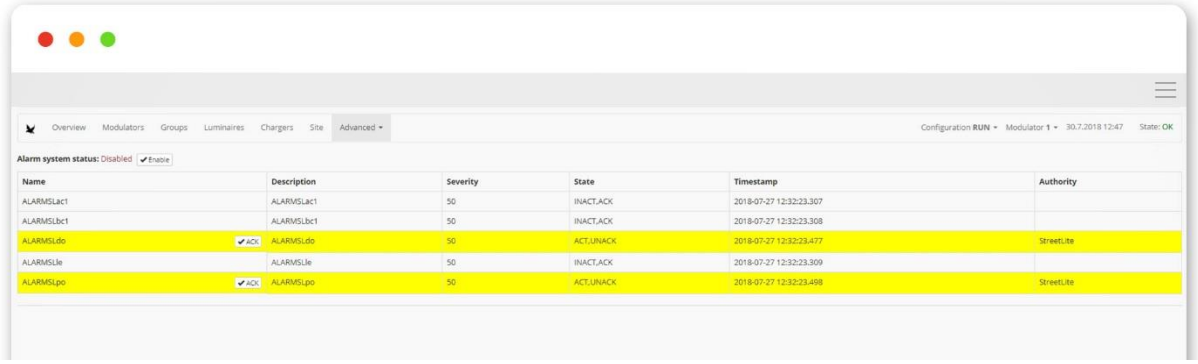
3.8.7 Rules tab

It defines rules that unit will be automatically respond. These events are high / low currents or voltages, digital inputs, modulator and luminaires fault etc. If an event is to be an alarm, it must first be created in the alarm card. Some features are only available when using two way control.



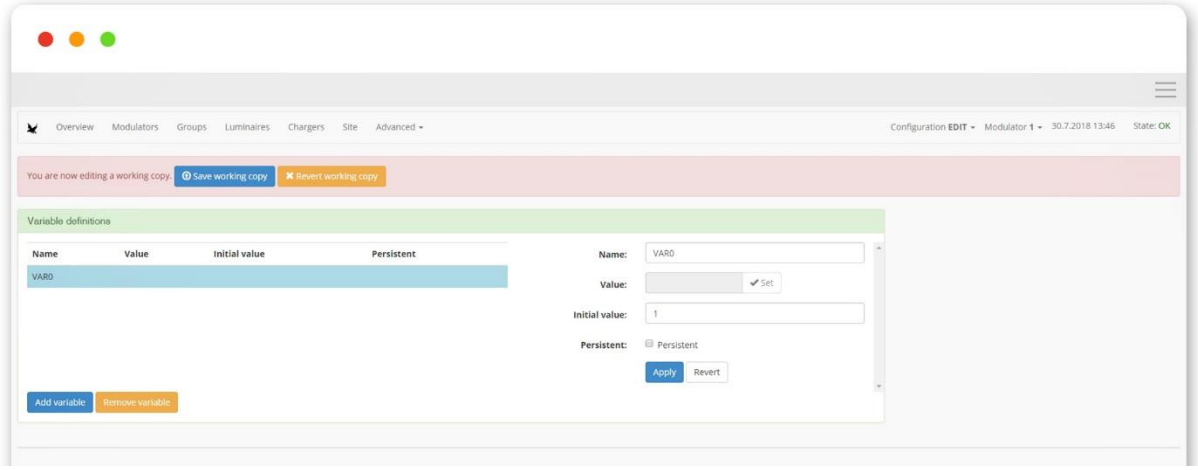
3.8.8 Alarms tab

It allows to create, edit or delete alarms. We assign name alarm, fault name, severity from 0 to 100, where 0 is the highest severity, set alarm confirmation, and archive events. Alarms can be activated or deactivated if needed. In case of alarm activation (yellow color), user can mark it as acknowledged (so that it is easy to tell old alarms being resolved from new ones).



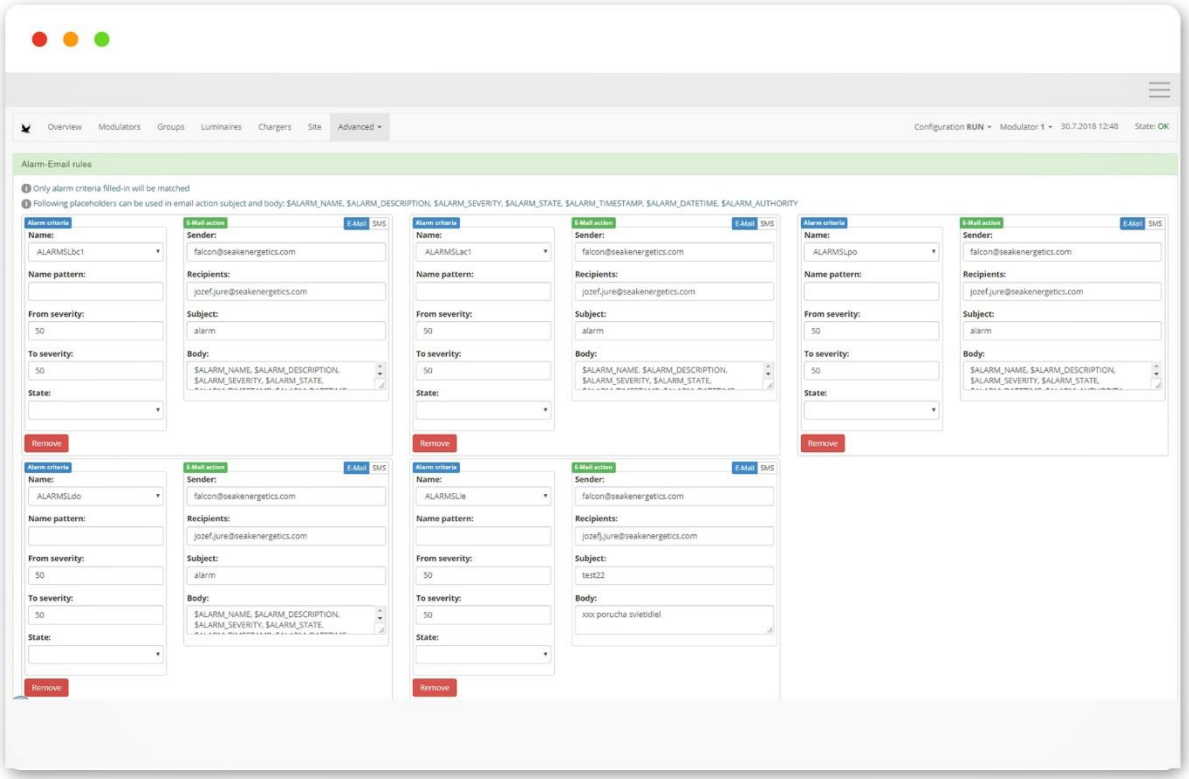
3.8.9 Variables tab

It allows to set up variables at which the event changes (alarm...)



3.8.10 Messaging tab

Another part of setting up alarms is setting up text messages. In „Email action“ it is the possible to set up the recipient and the text of a specific alarm message. In „Alarm criteria“ you can set up the conditions, when email is sent. For more detailed instructions on how to set up alarms and send messages, click on this link.



3.8.11 Maintenance

This tab allows to export all settings to file and in the case of recovery, upload these settings again from this file.