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Lopolight Mimic-server MODBUS over TCP/IP section.

Modbus-service

Configuration

The section modbusd in the file modbus.json contains the configuration of the modbus service.

The default values are:

```
"modbusd": {
    "TcpPort": 502,
    "RestHost": "http://localhost:5000",
    "LmrqControlBase": 10000,
    "LmrqStatusBase": 10061,
    "GroupControlBase": 11000,
    "GroupStatusBase": 12000
}
```

- TcpPort
  The modbus service tcp port
- RestHost
  The address of the NLC-G web service
- LmrqControlBase
  The base coil address for lmrq control.
- LmrqStatusBase
  The base address for lmrq status. Each lmrq uses 5 coils.
- GroupControlBase
  The base address for group control
- GroupStatusBase
  The base address for group status. Each group uses 1 coil.

LMRQ control

To control a single light (LMRQ), set the coil LmrqControlBase + LMRQ address to 1 or 0.

Example:
Write a 1 to coil address 10001 to switch a light on.
Write a 0 to coil address 10001 to switch a light off.

LMRQ stataus

Each light (LMRQ) uses five coils for its status. The first coil indicate whether the the light has been requested to be switched or not. The next four indicate the status in binary.

Example:

Coil	Value	Meaning
10061	0	Request on or off

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Coil	Value	Meaning
10062	1	Status bit 1
10063	1	Status bit 2
10064	0	Status bit 3
10065	0	Status bit 4

The 0 in 10061 indicate that the light is requested off. The next 4 colis indicate that the light has status 3, which is off.

Status	Binary	Meaning
0	0000	Current outside range
1	0001	Light on
2	0010	Lifetime exceed within 2000h
3	0011	Light offOff
4	0100	Lifetime exceded
5	0101	Total failure
6	0110	Partial failure
7	0111	Hardware-on
8	1000	Overload"
9	1001	Teach in
10	1010	Flashing
11	1011	Light off Deicing active
12	1100	Light on Deicing active]

Group control

To control a group, set GroupControlBase + group external id to 1 or 0.
The group external id can be configured on the group manage page on the NLC-G. Groups with an external id with the value 0 can not be controlled via modbus.

Example:
Write a 1 to 11004 to activate the group with the external id 4. Write a 0 to 11001 to deactivate the group with the external id 1.

Group status

The group status indicate whether the group has a failure.

Example:
Read coil 12004. One indicate that the group with external id 4 is activated, but has a failure