

RAPIX INTEGRATION

18 MAY 2022



COURSE PURPOSE

Introduction to RAPIX.

This will help you to understand:

- Integration with non-RAPIX DALI devices.
- Integration with other devices using:
 - Dry Contact Inputs
 - Relays
 - Phase Dimmer
- Integration with Other Systems using
 - Modbus
 - Custom scripting (logic) code
 - RAPIX API
 - EisBar Software

COURSE PURPOSE

Pre-requisites.

It is recommended that you have already completed:

- DALI Basics;
- RAPIX Introduction;
- RAPIX Commissioning 1 - RAPIX Addressing;
- RAPIX Commissioning 2 - RAPIX Integrator.

WORKING WITH NON-RAPIX DALI DEVICES

INTER-OPERATION



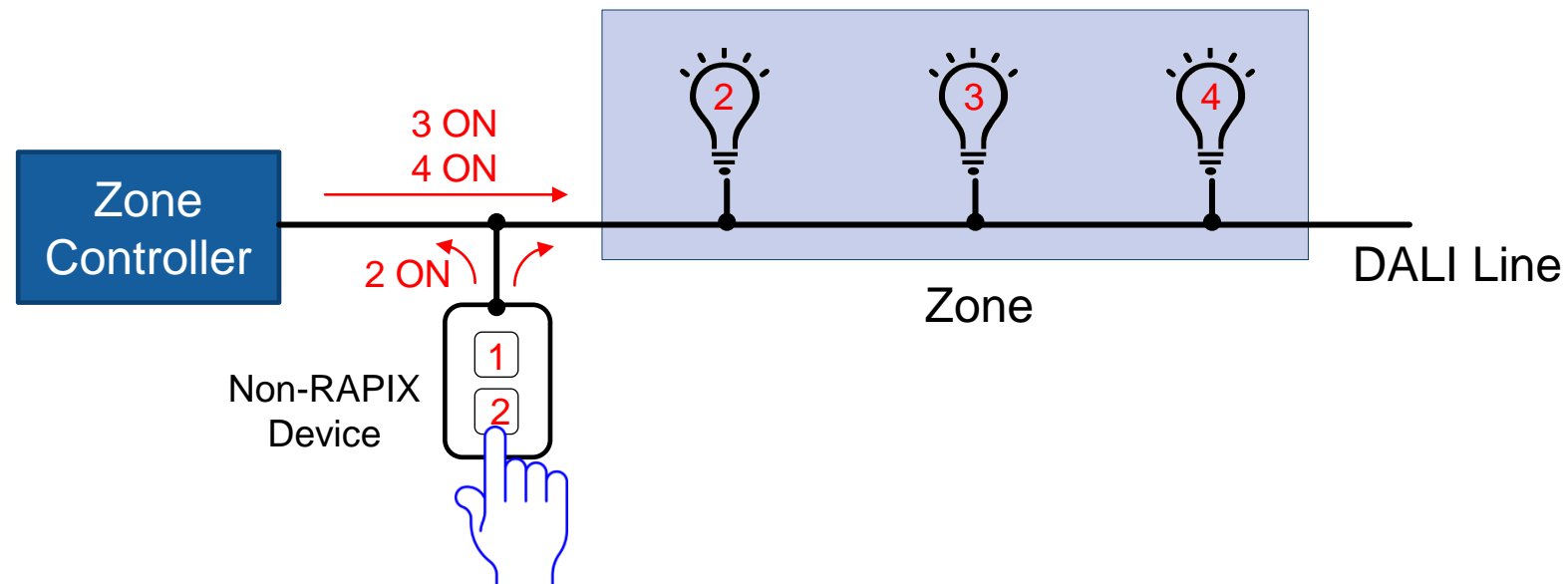
WORKING WITH NON-RAPIX DALI DEVICES

- RAPIX works with all DALI compliant devices.
- RAPIX works with many non-compliant DALI devices:
 - Non-compliant devices are very common;
 - There is a lot of intelligence in RAPIX to deal with them;
 - Operation with them is not guaranteed.

WORKING WITH NON-RAPIX DALI DEVICES

Zones can be controlled from a non-RAPIX device using Tracking Rules:

- The Zone can be linked to a DALI Short Address or Group



DRY CONTACT INPUTS



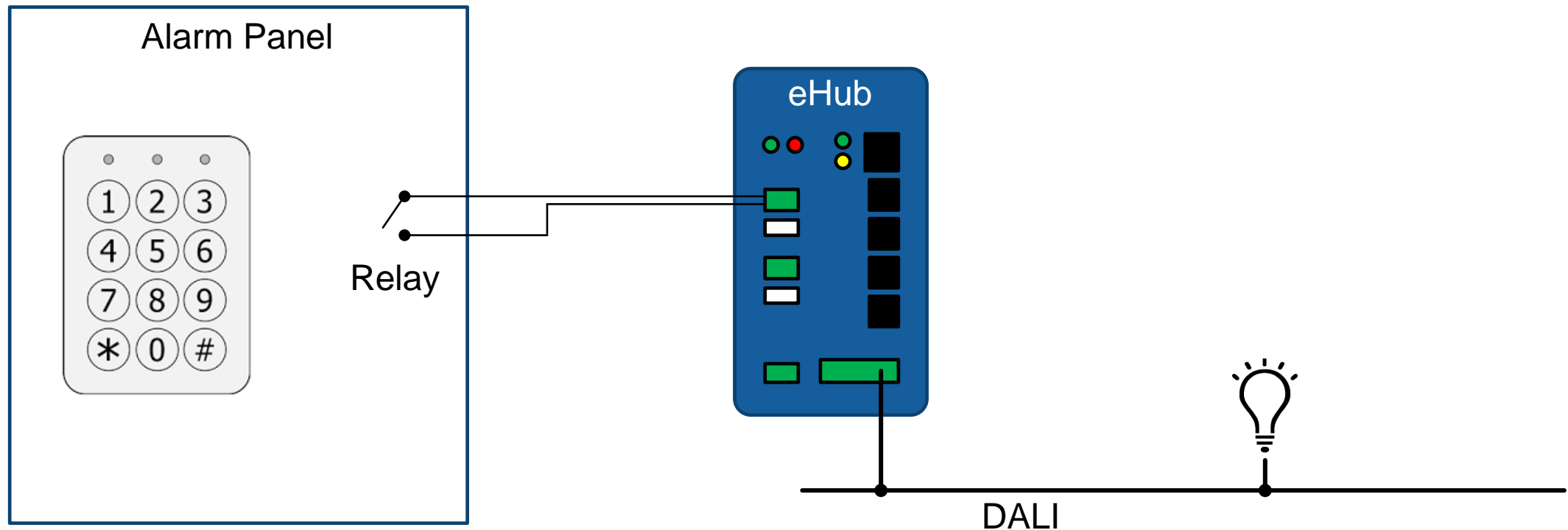
DRY CONTACT INPUTS

eHub Dry Contact inputs

- Allows control of RAPIX from another device or system, such as:
 - Security system alarm outputs;
 - Mechanical wall switches;
 - Non-DALI sensors.
- Can use either:
 - In-built Dry Contact inputs (2 connections)
 - Dry Contact Coupler (6 connections per channel)

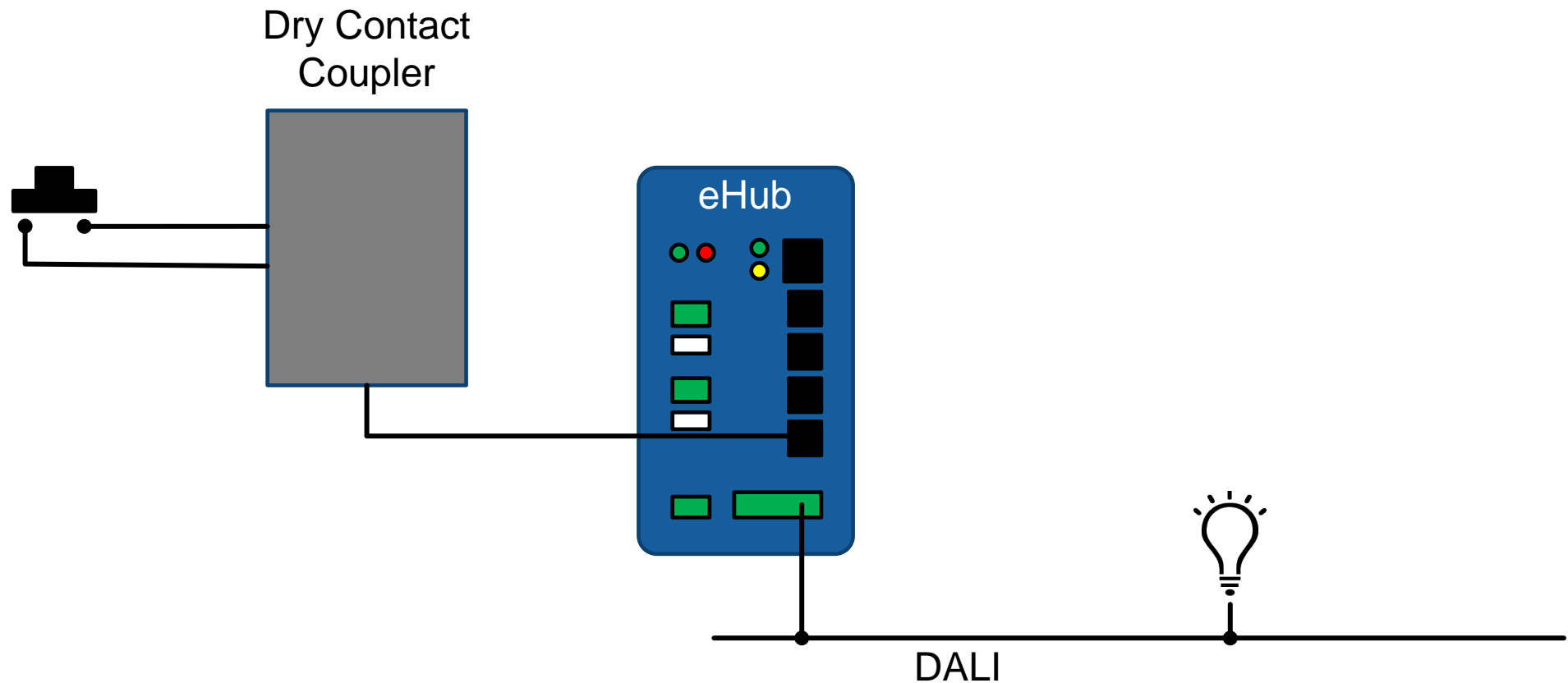
DRY CONTACT INPUTS

- Example: controlling lights from a security system alarm output



DRY CONTACT INPUTS

- Example: controlling lights from pushbutton switches



RELAYS



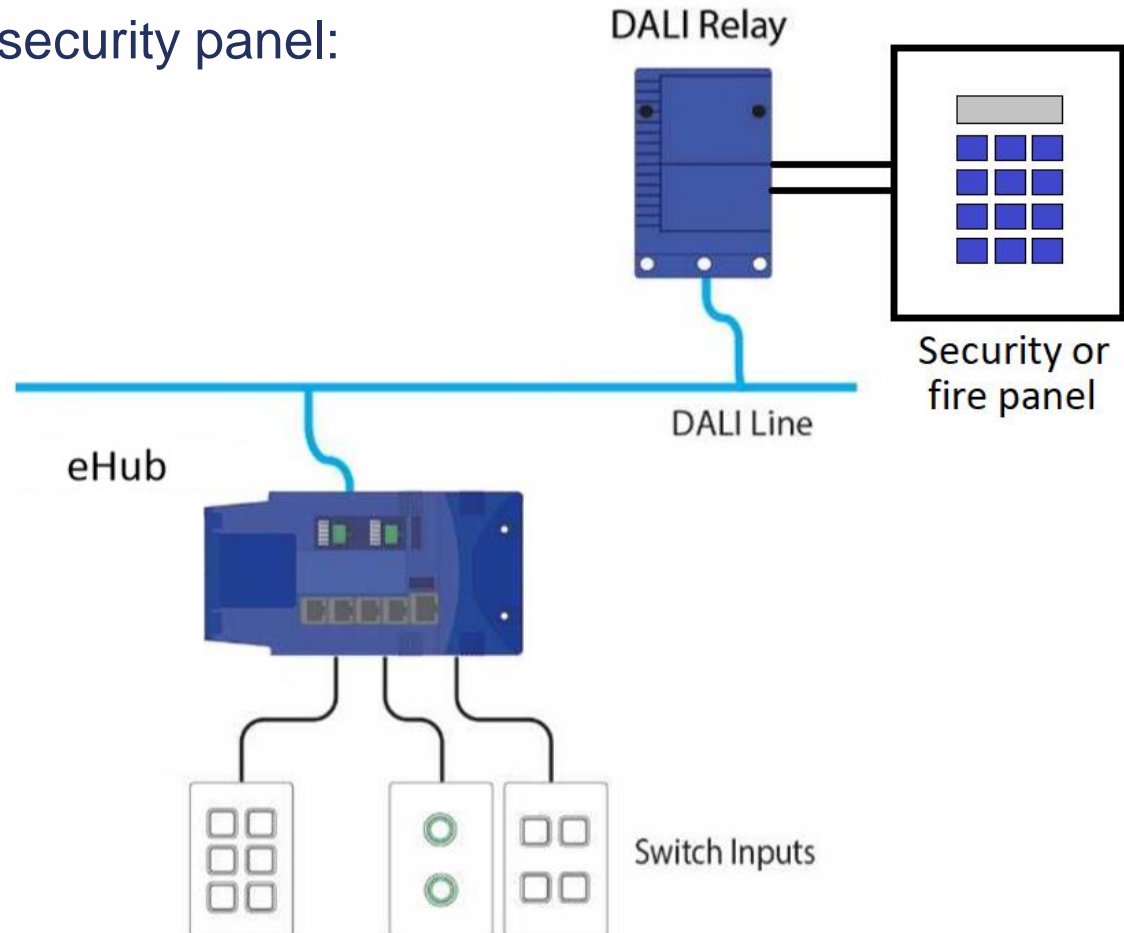
RELAYS

DALI Relay

- Allows control of other devices or systems from RAPIX, such as:
 - Switching non-DALI loads (lights, fans, motors etc.);
 - Controlling dry-contact inputs to other systems.
- Only uses one DALI Short Address for all devices connected to the relay

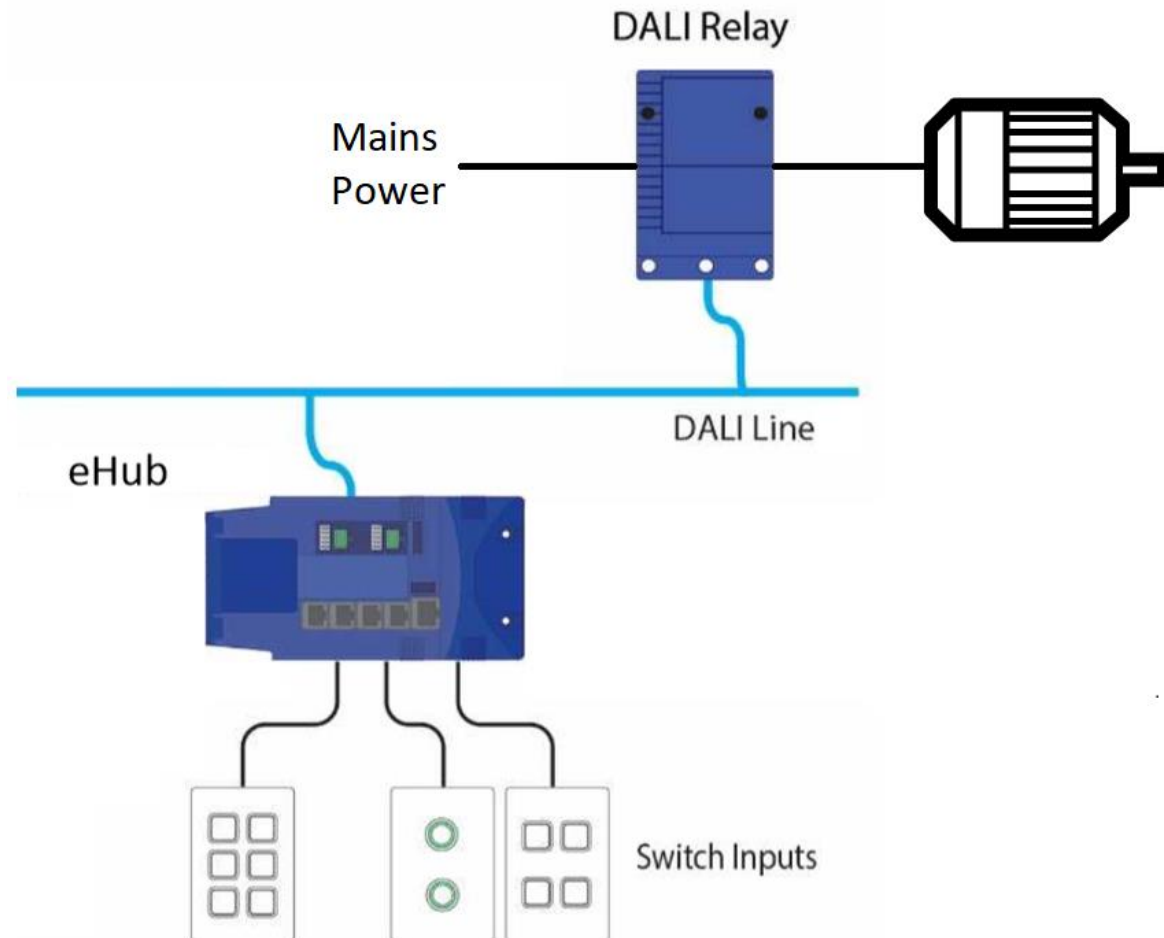
RELAYS

DALI Relay controlling an input to a security panel:



RELAYS

DALI Relay controlling a motor:



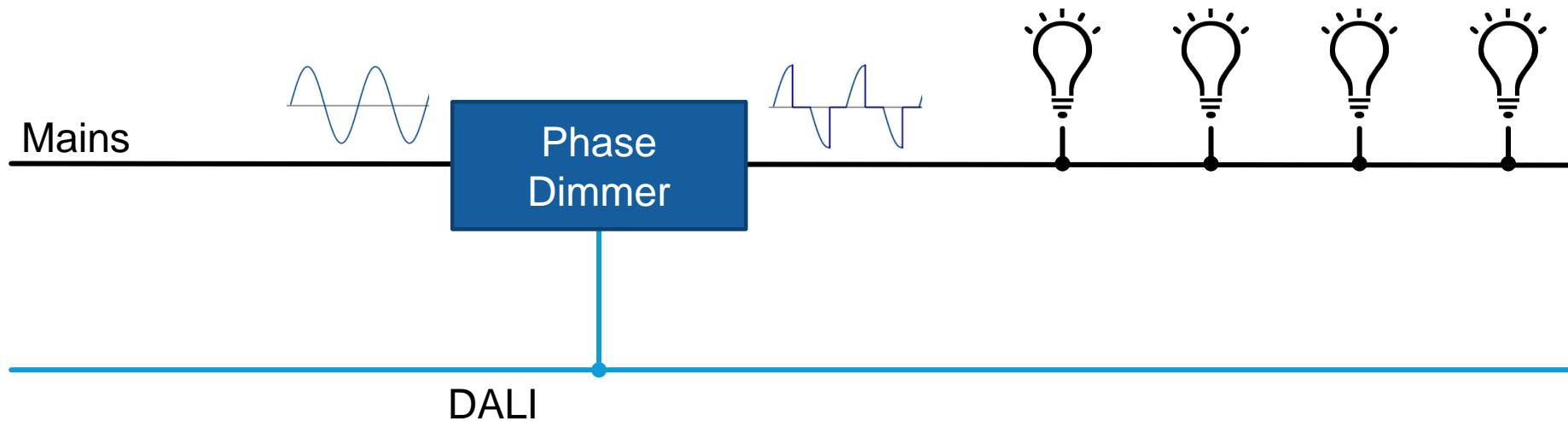
PHASE DIMMER



PHASE DIMMER

DALI Phase Dimmer

- Trailing edge dimming
- Allows dimming of non-DALI lights from RAPIX
- Only uses one DALI Short Address for all lights connected to the dimmer



MODBUS



MODBUS

Modbus

- Modbus over TCP/IP.
- Uses TCP/IP connection to Zone Controller.
- Zone Controller is a Modbus Slave.
- Allows control and monitoring of RAPIX Zones.
- See Application Note for details <https://ozuno.com/go/modbus/>

SCRIPTING (LOGIC)

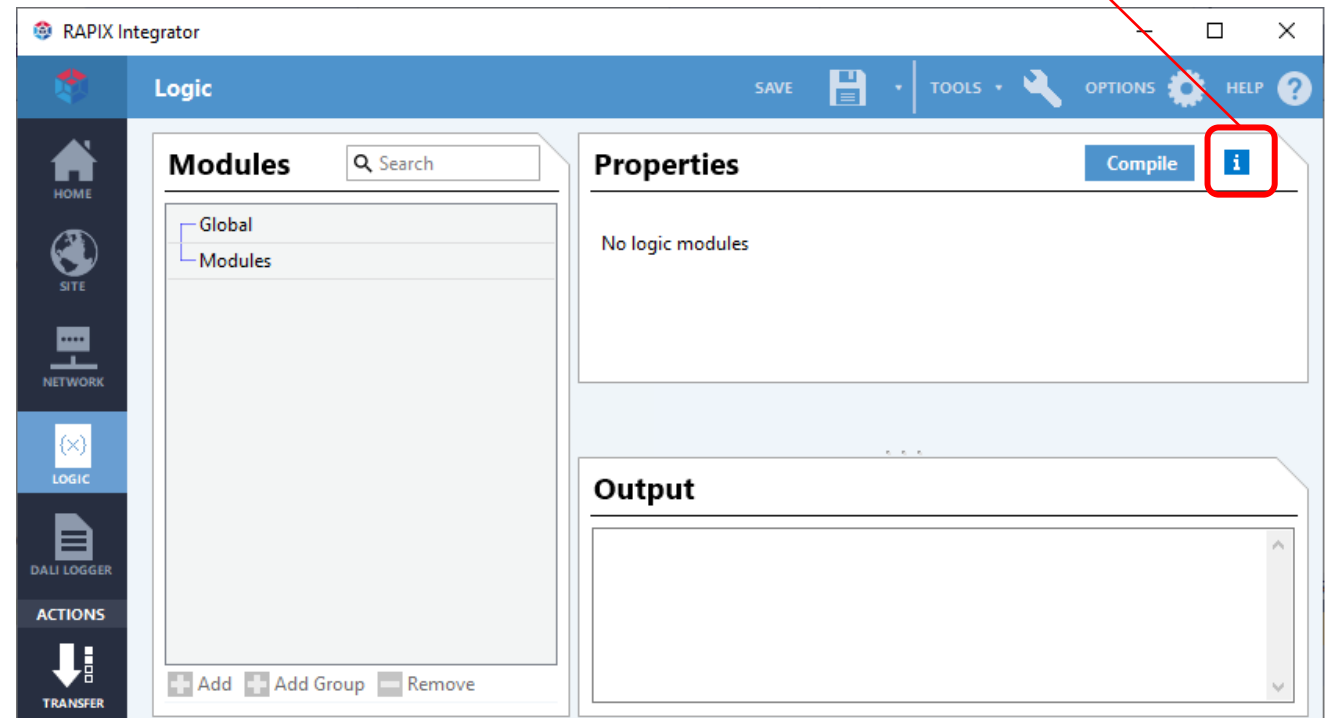


SCRIPTING / LOGIC

Custom code can be written if required:

- Runs in Zone Controller
- Interfaces
 - TCP/IP
 - UDP
 - Serial (RS232)
- See Logic documentation for details.

Click to get Logic documentation



RPIX API



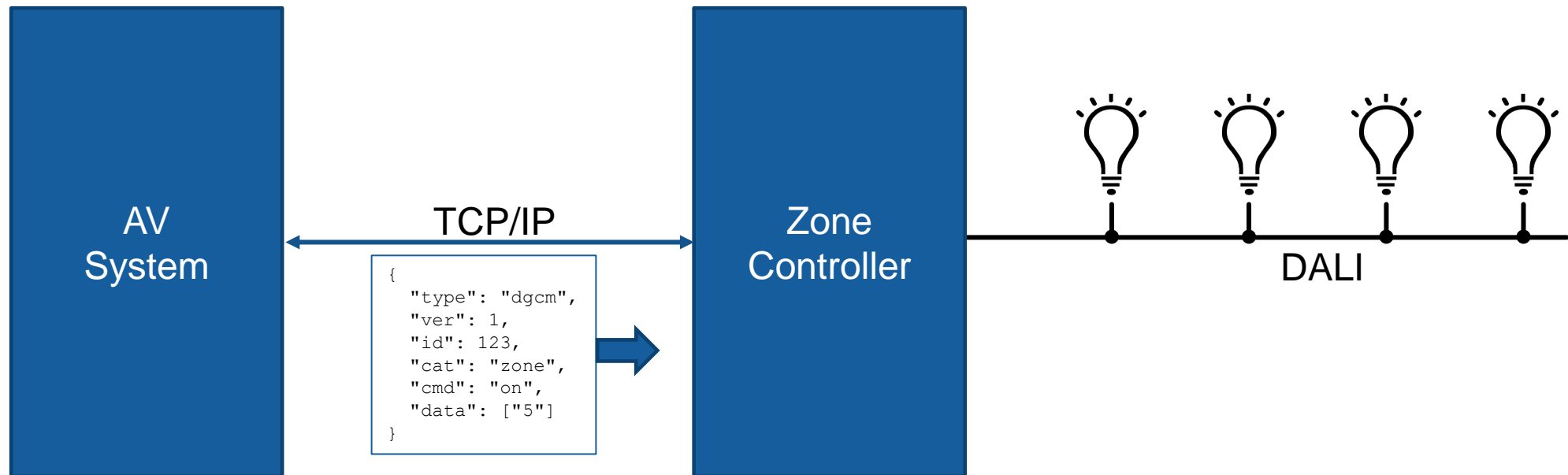
RAPIX API

RAPIX API

- Uses TCP/IP connection to Zone Controller
- Allows control and monitoring of RAPIX Zones and Scenes.
- See separate training course.

RAPIX API

- Example: Controlling a Zone from an AV System



EISBÄR SOFTWARE



EISBÄR SOFTWARE

- Visualisation
 - Monitoring and control
 - Zones, Xi Scenes
 - Device error states
- Complex scripting
- Interface to other Fieldbus systems
 - KNX, BACnet, LON etc.
- See <https://www.busbaer.de/en>

EISBÄR SOFTWARE

- Example: Interfacing a BACnet air conditioner and RAPIX

