SysMik EnOceanEvc driver for Niagara^{N4}

This manual is intended to provide support for installation and usage of the sysmikEnOceanEvc ndriver module within the Niagara^{N4}framework. The information is believed to be accurate and reliable. However, SysMik GmbH Dresden assumes no responsibility for possible mistakes and deviations in the technical specifications. SysMik GmbH Dresden reserves the right to make modifications in the interest of technical progress to improve our modules and software or to correct mistakes. We are grateful for any feedback and suggestions. Further information (device description, available software) can be found on our homepage www.sysmik.de. Please ask for latest information via email at sales@sysmik.de or info@sysmik.de. SysMik disclaims all warranties in case of improper use or disassembly and software modifications not described in this document or when using improper or faulty tools. Commissioning and operation of the device by qualified personnel only. All applicable regulations have to be observed.

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Preface

<u>Home</u>

This help document gives you a brief description about using the sysmikEnOceanEvc Niagara driver module.

Document Change Log

<u>Home</u>

• Version: 4.2.0

Published: Apr 13, 2017

Note: This is the first release version.

Compatibility and Installation

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Niagara Platform Compatibility

<u>Home</u>

The sysmikEnOceanEvc module will function on all Niagara^{N4} releases 4.1 and newer on Windows or Linux Operating Systems.

License Requirements

<u>Home</u>

The sysmikEnOceanEvc module will function on all NiagaraN4 releases 4.1 and newer on Windows or Linux Operating Systems.

The module <code>sysmikEnOceanEvc</code> is provided by SysMik GmbH Dresden and licensed by SysMik GmbH Dresden.

Note: It requires the license feature sysmikEnOceanEvc and licensed proxy points (globalCapacity).

Hardware Requirements

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The sysmikEnOceanEvc, driver module can be used on all Niagara hosts with serial port (RS485) support. This driver provides integration of wireless EnOcean devices by using an external gateway named STC65-RS485 EVC, manufactured by Thermokon Sensortechnik GmbH.

EnOceanEvc Driver Installation

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The sysmikEnOceanEvc module is provided

- 1. as a part of SysMiks Niagara Installation or
- 2. as part of SysMiks Niagara Add-Ons Installation or
- 3. as separate module on request.

In cases 1. and 2. run the installation; in case 3. copy the module files to your Niagara modules directory. Start Workbench and install the module to the target platform using platform software manager. For details, see <u>Software</u> <u>Manager</u> in the <u>Platform Guide</u>.

EnOceanEvc Driver Concepts

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The module sysmikEnOceanEvc is a Niagara driver that provides integration of wireless EnOcean devices by using an external gateway named STC65-RS485 EVC, manufactured by Thermokon Sensortechnik GmbH, with an RS485 interface. The driver supports

- offline point discovery
- data point reads without gateway specific configuration
- data point writes over gateway
- teach in of gateway to actuators
- gateway ping

The proper function of EnOcean devices (receive/send) depending on the proxy points, representing data from EnOcean Equipment Profiles (Version 2.6.6). For correct usage of this data please study the EnOcean Equipment Profile document, available at: http://www.enocean-alliance.org/eep

EnOceanEvc Quick Start

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This section provides information to use the sysmikEnOceanEvc driver to make EnOceanEvc proxy points.

Add a EnOceanEvc Network

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Use the following procedure to add an EnOceanEvcNetwork under the station's Drivers container.

To add an SysmikEnOceanEvcNetwork in the station:

- 1. Double-click the station's Drivers container, to bring up the Driver Manager.
- 2. Click the New button to bring up the New DeviceNetwork dialog. For more details, see <u>Driver Manager</u> <u>New and Edit</u> in the <u>Drivers Guide</u>.
- 3. Select SysmikEnOceanEvcNetwork, number to add: 1, and click OK.

This brings up a dialog to name the network.

- 4. Click OK to add the SysmikEnOceanEvcNetwork to the station.
- 5. You should have a SysmikEnOceanEvcNetwork under your Drivers folder.
- 6. For serial communication it is necessary to initialize the serial configuration, available in the AX Property Sheet

Add EnOceanEvc Devices

<u>Home</u>

To add a SysmikEnOceanEvcDevice under the network:

- 1. Double-click the SysmikEnOceanEvcNetwork, or:
- 2. Right-click the SysmikEnOceanEvcNetwork and select Views->N Device Manager.

This brings up the N Device Manager of the SysmikEnOceanEvcNetwork.

Click the New button. The number to add is 1 and click OK.

3. Insert the EnOcean ID of the device in hex format, separated by an ":" (doulbe point) and select an EnOcean Equipment Profile (EEP) this device is sending on.

Figure 1 - New SysmikEnOceanEvcDevice parameters

Name SysmikEnOceanEvcDevice	Type	Gateway Address	En Ocean Id			
	e sysmik en ocean eve bevice	0	00:00:00:00	Available Profiles Customize	Signal Strength 0 dbm	ţ₽
Name Sy Type Sy Gateway Address 0 En Ocean Id 00 Available Profiles Cu Signal Strength 0	rsmikEnOceanEvcDevice rsmik En Ocean Evc Devic Radix=16[0- 0:00:00:00 75 ustomize dbm	40]				

The signal strength is only available, when the gateway is configured. For more details please see: <u>Gateway configuration</u>

Supported EnOcean Profiles (receive)

<u>Home</u>

Following EnOcean Equipment Profiles (EEP), based on version 2.6.6, for SysmikEnOceanEvcDevices are supported to read:

- F6-01-01 Switch Buttons, Push Button
- F6-02-01 Rocker Switch, 2 Rocker, Light and Blind Control Application Style 1
- F6-02-02 Rocker Switch, 2 Rocker, Light and Blind Control Application Style 2
- F6-02-03 Rocker Switch, 2 Rocker, Light Control Application Style 1
- F6-03-01 Rocker Switch, 4 Rocker, Light and Blind Control Application Style 1
- F6-03-02 Rocker Switch, 4 Rocker, Light and Blind Control Application Style 2
- F6-04-01 Position Switch, Home and Office Application, Key Card Activated Switch
- F6-04-02 Position Switch, Home and Office Application, Key Card Activated Switch ERP2
- F6-05-00 Detectors, Wind Speed Threshold Detector
- F6-05-01 Detectors, Liquid Leakage Sensor mechanic harvester
- F6-05-02 Detectors, Smoke Detector
- F6-10-00 Mechanical Handle, Window Handle
- F6-10-01 Mechanical Handle, Window Handle ERP2
- D5-00-01 Contacts and Switches, Single Input Contact

 A5-02-01 Temperature Sensors, Temperature Sensor Range -40 °C to 0 °C A5-02-02 Temperature Sensors, Temperature Sensor Range -30 °C to +10 °C A5-02-03 Temperature Sensors, Temperature Sensor Range -20 °C to +20 °C A5-02-04 Temperature Sensors, Temperature Sensor Range -10 °C to +30 °C A5-02-05 Temperature Sensors, Temperature Sensor Range 0 °C to +40 °C A5-02-06 Temperature Sensors, Temperature Sensor Range +10 °C to +50 °C A5-02-07 Temperature Sensors, Temperature Sensor Range +20 °C to +60 °C A5-02-08 Temperature Sensors, Temperature Sensor Range +30 °C to +70 °C A5-02-09 Temperature Sensors, Temperature Sensor Range +40 °C to +80 °C A5-02-0A Temperature Sensors, Temperature Sensor Range +50 °C to +90 °C A5-02-0B Temperature Sensors, Temperature Sensor Range +60 °C to +100 °C A5-02-10 Temperature Sensors, Temperature Sensor Range -60 °C to +20 °C A5-02-11 Temperature Sensors, Temperature Sensor Range -50 °C to +30 °C A5-02-12 Temperature Sensors, Temperature Sensor Range -40 °C to +40 °C A5-02-13 Temperature Sensors, Temperature Sensor Range -30 °C to +50 °C A5-02-14 Temperature Sensors, Temperature Sensor Range -20 °C to +60 °C A5-02-15 Temperature Sensors, Temperature Sensor Range -10 °C to +70 °C A5-02-16 Temperature Sensors, Temperature Sensor Range 0 °C to +80 °C A5-02-17 Temperature Sensors, Temperature Sensor Range +10 °C to +90 °C A5-02-18 Temperature Sensors, Temperature Sensor Range +20 °C to +100 °C A5-02-19 Temperature Sensors, Temperature Sensor Range +30 °C to +110 °C A5-02-1A Temperature Sensors, Temperature Sensor Range +40 °C to +120 °C A5-02-1B Temperature Sensors, Temperature Sensor Range +50 °C to +130 °C A5-02-20 Temperature Sensors, 10 Bit Temperature Sensor Range -10 °C to +41.2 °C A5-02-30 Temperature Sensors, 10 Bit Temperature Sensor Range -40 °C to +62.3 °C A5-04-01 Temperature and Humidity Sensor, Range 0 °C to +40 °C and 0 % to 100 % A5-04-02 Temperature and Humidity Sensor, Range -20 °C to +60 °C and 0 % to 100 %

- A5-04-03 Temperature and Humidity Sensor, Range -20 °C to +60 °C 10 bit measurement and 0 % to 100 %
- A5-05-01 Barometric Sensor, Range 500 to 1150 hPa
- A5-06-01 Light Sensor, Range 300 lx to 60.000 lx
- A5-06-02 Light Sensor, Range 0 lx to 1.020 lx
- A5-06-03 Light Sensor, 10 bit measurement with range 0 lx to 1.000 lx
- A5-06-04 Light Sensor, Curtain Wall Brightness Sensor
- A5-06-02 Light Sensor, Range 0 lx to 10.200 lx
- A5-07-01 Occupancy Sensor, Occupancy with Supply voltage monitor
- A5-07-02 Occupancy Sensor, Occupancy with Supply voltage monitor
- A5-07-03 Occupancy Sensor, Occupancy with Supply voltage monitor and 10 bit illumination measurement
- A5-08-01 Light Temperature and Occupancy Sensor, Range 0 lx to 510 lx, 0 °C to +51 °C and Occupancy Button
- A5-08-02 Light Temperature and Occupancy Sensor, Range 0 lx to 1020 lx, 0 °C to +51 °C and Occupancy Button
- A5-08-03 Light Temperature and Occupancy Sensor, Range 0 lx to 1530 lx, -30 °C to +50 °C and Occupancy Button
- A5-09-02 Gas Sensor, CO-Sensor 0 ppm to 1020 ppm
- A5-09-04 Gas Sensor, CO2 Sensor
- A5-09-05 Gas Sensor, VOC Sensor
- A5-09-06 Gas Sensor, Radon
- A5-09-07 Gas Sensor, Particles
- A5-09-08 Gas Sensor, Pure CO2 Sensor
- A5-09-09 Gas Sensor, Pure CO2 Sensor with Power Failure Detection
- A5-09-0A Gas Sensor, Hydrogen Gas Sensor
- A5-09-0B Gas Sensor, Radioactivity Sensor
- A5-09-0C Gas Sensor, VOC Sensor
- A5-10-01 Room Operating Panel, Temperature Sensor, Set Point, Fan Speed and Occupancy Control

- A5-10-02 Room Operating Panel, Temperature Sensor, Set Point, Fan Speed and Day/Night Control
- A5-10-03 Room Operating Panel, Temperature Sensor and Set Point Control
- A5-10-04 Room Operating Panel, Temperature Sensor, Set Point and Fan Speed Control
- A5-10-05 Room Operating Panel, Temperature Sensor, Set Point and Occupancy Control
- A5-10-06 Room Operating Panel, Temperature Sensor, Set Point and Day/Night Control
- A5-10-07 Room Operating Panel, Temperature Sensor, Fan Speed Control
- A5-10-08 Room Operating Panel, Temperature Sensor, Fan Speed and Occupancy Control
- A5-10-09 Room Operating Panel, Temperature Sensor, Fan Speed and Day/Night Control
- A5-10-0A Room Operating Panel, Temperature Sensor, Set Point Adjust and Single Input Contact
- A5-10-0B Room Operating Panel, Temperature Sensor and Single Input Contact
- A5-10-0C Room Operating Panel, Temperature Sensor and Occupancy Button
- A5-10-0D Room Operating Panel, Temperature Sensor and Day/Night Control
- A5-10-10 Room Operating Panel, Temperature and Humidity Sensor, Set Point and Occupancy Control
- A5-10-11 Room Operating Panel, Temperature and Humidity Sensor, Set Point and Day/Night Control
- A5-10-12 Room Operating Panel, Temperature and Humidity Sensor and Set Point
- A5-10-13 Room Operating Panel, Temperature and Humidity Sensor, Occupancy Control
- A5-10-14 Room Operating Panel, Temperature and Humidity Sensor, Day/Night Control
- A5-10-15 Room Operating Panel, 10 bit Temperature Sensor, 6 bit Set Point Control
- A5-10-16 Room Operating Panel, 10 bit Temperature Sensor, 6 bit Set Point and Occupancy Control
- A5-10-17 Room Operating Panel, 10 bit Temperature Sensor and Occupancy Control
- A5-10-18 Room Operating Panel, Illumination, Temperature Sensor, Set Point, Fan Speed and Occupancy Control
- A5-10-19 Room Operating Panel, Humidity and Temperature Sensor, Set Point, Fan Speed and Occupancy Control
- A5-10-1A Room Operating Panel, Supply Voltage Monitor, Temperature Sensor, Set Point, Fan Speed and Occupancy Control
- A5-10-1B Room Operating Panel, Supply Voltage Monitor, Illumination, Temperature Sensor, Fan Speed and Occupancy Control

- A5-10-1C Room Operating Panel, Illumination, Illumination Set Point, Temperature Sensor, Fan Speed and Occupancy Control
- A5-10-1D Room Operating Panel, Humidity, Humidity Set Point, Temperature Sensor, Fan Speed and Occupancy Control
- A5-10-1E Room Operating Panel, Supply Voltage Monitor, Illumination, Temperature Sensor, Fan Speed and Occupancy Control
- A5-10-1F Room Operating Panel, Temperature Sensor, Set Point, Fan Speed, Occupancy and Unoccupancy Control
- A5-10-20 Room Operating Panel, Temperature Sensor, Set Point with Special Heating States
- A5-10-21 Room Operating Panel, Humidity and Temperature Sensor, Set Point with Special Heating States
- A5-10-22 Room Operating Panel, Humidity and Temperature Sensor, Set Point and Fan Speed Control
- A5-10-23 Room Operating Panel, Humidity and Temperature Sensor, Set Point, Fan Speed and Occupancy Control
- A5-11-01 Controller Status, Light Controller
- A5-11-02 Controller Status, Temperature Controller Output
- A5-11-03 Controller Status, Blind Status
- A5-11-04 Controller Status, Extended Lighting Status
- A5-11-05 Controller Status, Dual Channel Switch Actuator (BI-DIR)
- A5-12-00 Automated Meter Reading (AMR), Counter
- A5-12-01 Automated Meter Reading (AMR), Electricity
- A5-12-02 Automated Meter Reading (AMR), Gas
- A5-12-03 Automated Meter Reading (AMR), Water
- A5-12-04 Automated Meter Reading (AMR), Temperature and Load Sensor
- A5-12-05 Automated Meter Reading (AMR), Temperature and Container Sensor
- A5-12-10 Automated Meter Reading (AMR), Current Meter 16 Channels
- A5-13-01 Environmental Applications, Weather Station
- A5-13-02 Environmental Applications, Sun Intensity
- A5-13-03 Environmental Applications, Date Exchange

- A5-13-04 Environmental Applications, Time and Day Exchange
- A5-13-05 Environmental Applications, Direction Exchange
- A5-13-06 Environmental Applications, Geographic Position Exchange
- A5-13-07 Environmental Applications, Wind Sensor
- A5-13-08 Environmental Applications, Rain Sensor
- A5-13-10 Environmental Applications, Sun Position and radiation
- A5-14-01 Multifunctional Sensor, Single Input Contact and Supply Voltage Monitor
- A5-14-02 Multifunctional Sensor, Single Input Contact, Supply Voltage Monitor and Illumination
- A5-14-03 Multifunctional Sensor, Single Input Contact, Supply Voltage Monitor and Vibration
- A5-14-04 Multifunctional Sensor, Single Input Contact, Supply Voltage Monitor, Vibration and Illumination
- A5-14-05 Multifunctional Sensor, Vibration or Tilt and Supply Voltage Monitor
- A5-14-06 Multifunctional Sensor, Vibration or Tilt, Illumination and Supply Voltage Monitor
- A5-14-07 Multifunctional Sensor, Dual Door Contact with States and Supply Voltage Monitor
- A5-14-08 Multifunctional Sensor, Dual Door Contact with States, Supply Voltage Monitor and Vibration
- A5-14-09 Multifunctional Sensor, Window or Door Sensor with States and Supply Voltage Monitor
- A5-14-0A Multifunctional Sensor, Window or Door Sensor with States, Supply Voltage Monitor and Vibration Detection
- A5-20-01 HVAC Components, Battery Powered Actuator (BI-DIR)
- A5-20-02 HVAC Components, Basic Actuator (BI-DIR)
- A5-20-03 HVAC Components, Line Powered Actuator (BI-DIR)
- A5-20-04 HVAC Components, Heating Radiator Valve Actuating with Fan Speed and Room Temperature Measurement, Local Set Point Control and Display (BI-DIR)
- A5-20-05 HVAC Components, Ventilation Unit (BI-DIR)
- A5-20-12 HVAC Components, Temperature Controller Input
- A5-30-01 Digital Input, Single Input Contact and Battery Monitor
- A5-30-02 Digital Input, Single Input Contact
- A5-30-03 Digital Input, 4 Digital Inputs, Wake and Temperature
- A5-30-04 Digital Input, 3 Digital Inputs and 1 Digital Input 8 bit

- A5-30-05 Digital Input, Single Input Contact, Retransmission and Battery Monitor
- A5-37-01 Energy Management, Demand Response
- A5-38-08 Central Command, Gateway
- A5-38-09 Central Command, Extended Lighting Control

Also VLD Telegrams (ORG = 0xD2) can be read. For this you need to use "Customized" profile setting, to create your own EnOcean device template (by changing offset and size on the ProxyExt). Further this function can be used for individual data point of newly added EnOcean Equipment Profiles

SysmikEnOceanEvcDevice can only read incoming data from the gateway. Writable points will have no effect on set.

For writing to an EnOcean device please see: <u>SysmikEnOceanGateway</u>

Add EnOceanEvc Proxy Points

<u>Home</u>

As with device objects in other drivers, each SysmikEnOceanEvcDevice has a Points extension that serves as the container for proxy points. The default view for this Points extension is the N Point Manager. You use it to create proxy points under any SysmikEnOceanEvcDevice object.

TodiscoverEnOceanEvcproxypointsPerform this tasks to discover EnOceanEvc proxy points.

Discover EnOceanEvc points of a EnOceanEvc device:

- 1. In N Device Manager, in the Exts column, double-click the Points icon in the row representing the EnOceanEvc device you wish to explore. This brings up its N Point Manager.
- 2. Make sure that you have selected an available EnOcean Equipment Profile (EEP) before discovering, otherwise no points will be shown.
- 3. Click the Discover button to discover the EnOceanEvc proxy points available for this EnOceanEvc device.
- 4. When the discovery job completes, discovered EnOceanEvc points, with their specific parameters are viewed in the top pane of the view, in the Discovered table.

Figure 1 - EnOceanEvcDevice point discovery

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My Host: RK-W10-14-001 (EnOcean Test)	Discovery Name	Offset Siz	e			10
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Station (EnOceanTest)	Parameter 3	16 8				
Alarm		24 1				
- Ocnfig	-Operating hours fla	g 25 1				
G Services	Error State	26 2				
O Drivers NiagaraNetwork	Parameter Mode	29 2				
SysmikEnOceanEvcNetwork	Status	31 1				
Rocker Small						
Actuator 1						
Actuator 2						
Room Panel						
Battery Actuator						
Rocker Big						
CustomDevice						
U Apps Elles	Database					8 objects
Hierarchy	Name	Туре	Out	Offset	Size	e
G History	🔞 Parameter 1	NumericPoint	0,00 {ok}	0	8	
	Parameter 2	Numeric Point	0,00 {ok}	8	8	
	Parameter 3	Numeric Point	23,00 {ok}	16	8	
• Palette	U Service Mode	Boolean Point	Normal Mode (ok)	24	1	
🖿 🗶 🖄 🛔 sysmikEnOceanEvc 🔹	Operating nours flag	Boolean Point	Lamp operating nours available (ok)	25	1	
SysmikEnOceanEvcNetwork	Parameter Mode	Foum Point	One Byte Dimmer Value Lamp (ok)	29	2	
SysmikEnOceanEvcDevice	Status	Boolean Point	Lighting off (ok)	31	1	
SysmikEnOceanEvcGateway						
SysmikEnOceanEvcDeviceFolder						
Em SysmikEnOceanEvcPointFolder SysmikEnOceanEvcPointFolder						
SysmikEnOceanEvcButtonFlipFlop						
SysmikEnOceanEvcRockerToggle						
			New Fo	der	🕞 New 💉 Edit 🚔 Discover 🔳 Cancel 🛞 Add >> Match 🖏 Tagit	

To add discovered proxy points

Add discovered EnOceanEvc points as proxy points:

- 1. Just drop down the discovered point into the database tab in the N Point Manager or mark the point and click Add. This brings up the Add dialog, Click OK
- 2. The proxy points are added to the station, and appear listed in the Database pane.

The following brief summaries explain Add dialog fields:

- Name is the proxy point name, according to EnOcean Equipment Profile
- Type is the point type.
- Offset is the data offset, according to EnOcean Equipment Profile
- Size is the data size, according to EnOcean Equipment Profile

offset and size cannot changed in this dialog, for customized points changes needs to be done in the ProxyExt.

Unlike other EnOcean devices, Rocker have their own proxy points and point extensions. offset and size parameters have no effect.

Add EnOceanEvc Gateways

<u>Home</u>

To add a SysmikEnOceanEvcGateway under the network:

- 1. Open the palette SysmikEnOceanEvc
- 2. Drop the sysmikEnOceanEvcGateway into the SysmikEnOceanEvcNetwork
- 3. To use the correct gateway you need to insert the gateway address in hex format
- 4. The Repeat Mode property sets how often the messages are repeated on serial bus

⁽¹⁾For multiple gateways at one bus you may not use the address 0. This address is set by default. On starting / inserting it will override the existing config on address 0.

⁽¹⁾For multiple gateways at one bus take care of bus collisions. Using filter table of the gateway might prevent these.

Supported EnOcean Profiles (send)

<u>Home</u>

Following EnOcean Equipment Profiles (EEP), based on version 2.6.6, for SysmikEnOceanEvcGateways are supported to send:

- Rocker (named as FakeRocker):
 - o F6-02-01 Rocker Switch, 2 Rocker, Light and Blind Control Application Style 1
 - F6-02-02 Rocker Switch, 2 Rocker, Light and Blind Control Application Style 2
 - o F6-02-03 Rocker Switch, 2 Rocker, Light Control Application Style 1
 - o F6-03-01 Rocker Switch, 4 Rocker, Light and Blind Control Application Style 1
 - o F6-03-02 Rocker Switch, 4 Rocker, Light and Blind Control Application Style 2
- A5-11-05 Controller Status, Dual Channel Switch Actuator (BI-DIR)
- A5-20-01 HVAC Components, Battery Powered Actuator (BI-DIR)
- A5-20-02 HVAC Components, Basic Actuator (BI-DIR)
- A5-20-03 HVAC Components, Line Powered Actuator (BI-DIR)
- A5-20-04 HVAC Components, Heating Radiator Valve Actuating with Fan Speed and Room Temperature Measurement, Local Set Point Control and Display (BI-DIR)

- A5-20-05 HVAC Components, Ventilation Unit (BI-DIR)
- Gateway commands:
 - o A5-38-08 Central Command, Gateway Command 1 Switching
 - o A5-38-08 Central Command, Gateway Command 2 Dimming
 - o A5-38-08 Central Command, Gateway Command 3 Set Point Shift
 - o A5-38-08 Central Command, Gateway Command 4 Basic Set Point
 - o A5-38-08 Central Command, Gateway Command 5 Control Variable
 - o A5-38-08 Central Command, Gateway Command 6 Fan Stage
 - o A5-38-08 Central Command, Gateway Command 7 Blind Central Command
- A5-38-09 Central Command, Extended Lighting Control

Add EnOceanEvc Gateway Proxy Points

<u>Home</u>

As with device objects in other drivers, each SysmikEnOceanEvcGateway has a Points extension that serves as the container for proxy points. The default view for this Points extension is the N Point Manager. You use it to create proxy points under any SysmikEnOceanEvcGateway object.

То	discover	EnOceanEvcGateway	proxy	points
Perform this tasks	to discover EnOceanEvcG	ateway proxy points:		

- 1. In AX Property Sheet of the gateway, click the Points icon. This brings up its N Point Manager.
- 2. Click the Discover button to discover the EnOceanEvcGateway proxy points available for this EnOceanEvcGateway.
- 3. When the discovery job completes, discovered EnOceanEvcGateway points are viewed as groups in the top pane of the Discovered table.

Figure 1 - EnOceanEvcGateway point discovery

Niagara Workbench N4 4.1.27.20.1.7		- 0 ×
File Edit Search Bookmarks Tools Window Manager	eip	Q Quick Search
	A = A = 0	
• Nav	⊘ ≯ Sysmilk En Ocean Evc Discovery	Success ≫ 🕱
ピ 🔿 🗵 🕲 My Network	Discovered	15 objects
♥ ■ 10.0.14.10 (EnOcean Test) Platform ♥ Station (Enocean Test) ♣ Alarm ♥ ⊕ Conlig ♦ @ Services ♥ ⊕ Services ♥ ⊕ Drives ♥ ⊕ Drives ♥ ⊕ ServiceSnoteconck	B As 11 45 Dual Channel Switch Actuator B-DIR BA 25 40 15 Bitter / Powered Actuator B-DIR BA 25 40 15 Bitter / Powered Actuator B-DIR BA 25 40 15 Bitter / Powered Actuator B-DIR BA 25 40 15 Bitter / Powered Actuator B-DIR BA 25 40 41 feating Radiator Vialve Actuating with Fan Speed and Room Temperature Heasurement, Local Set Point Control and Display B-DIR BA 25 40 41 feating Radiator Vialve Actuating with Fan Speed and Room Temperature Heasurement, Local Set Point Control and Display B-DIR BA 25 40 41 feating Radiator Vialve Actuating with Fan Speed and Room Temperature Heasurement, Local Set Point Control and Display B-DIR BA 25 40 41 feating Radiator Vialve Actuating with Fan Speed and Room Temperature Heasurement, Local Set Point Control and Display B-DIR BA 25 40 41 feating Radiator Vialve Actuating with Fan Speed and Room Temperature Heasurement, Local Set Point Control and Display B-DIR BA 25 40 41 feating Radiator Vialve Actuating with Fan Speed and Room Temperature Heasurement, Local Set Point Control and Display B-DIR BA 25 40 41 feating Radiator Vialve Actuating with Fan Speed and Room Temperature Heasurement, Local Set Point Control and Display B-DIR BA 25 40 41 feating Radiator Vialve Actuating with Fan Speed and Room Temperature Heasurement, Local Set Point Control and Display B-DIR BA 25 40 41 feating Radiator Vialve Actuating with Fan Speed and Room Temperature Heasurement, Local Set Point Control and Display B-DIR BA 25 40 40 40 40 40 40 40 40 40 40 40 40 40	
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To add discovered proxy points

Add discovered EnOceanEvcGateway points as proxy points:

- 1. Just drop down the discovered point into the database tab in the N Point Manager or mark the point and click Add. This brings up the Add dialog, Click OK
- 2. Change the channel property to a free one. Click OK
- 3. The proxy points are added to the station, and appear listed in the Database pane.

Figure 1 - EnOceanEvcGateway point discovery

Name	Туре		Facets	Channel	Fake Device
Fan Stage Over	rride Enun	n Writable	range={Stage_0=0,Stage_1=1,Stage_2=2,Stage_3=3,Auto=4}	0	A5-38-08 Gateway Comm
Name	Fan Stag	e Overr	ide		
📄 Туре	Enum Wri	table			
Facets	range={Sta	ge_0=0,Sta	ge_1=1,Stage_2=2,Stage_3=3,Aut 📎 🕓 🔹		
Channel	0		[0 - 127]		
🚡 Fake Device	A5-38-08 0	ateway Co	ommand, Fan Stage 🗸		
Offset	16				
	8				
Size	•				

AIf there is an existing device / profile in this channel, the FakeDevice property will be overwritten and the send function for this channel may not work any more.

The following brief summaries explain Add dialog fields:

- Name is the proxy point name, according to EnOcean Equipment Profile
- Type is the point type.
- Channel is is one of the 128 channels, that the gateway can send on.
- FakeDevice shows the EnOcean Equipment Profile that is imitated by the gateway.
- Offset is the data offset, according to EnOcean Equipment Profile
- Size is the data size, according to EnOcean Equipment Profile

offset and size cannot changed in this dialog, for customized points changes needs to be done in the ProxyExt.

Unlike other EnOcean devices, Rocker have their own proxy points. offset and size parameters have no effect.

Working with EnOceanEvc Gateway

<u>Home</u>

For reading data from EnOcean devices a use of the SysmikEnOceanEvcGateway is not necessary. Usage is mandatory if you want to send messages to an EnOcean device. There for you need to add proxy points to the gateway. (please refer to: <u>Add Gateway Points</u>)

Actions on a SysmikEnOceanEvcGateway:

- Ping Ping this gateway
- Get Gateway Configuration get the current configuration of this gateway (BaseID, ChipID, Firmware Version and several Modes)
- Set Gateway Configuration set the current configuration of this gateway (Repeat Mode and initial settings)
- Teach In sending a teach in message on specified channel from the gateway to other EnOcean device (in Learn Mode)
- Delete All Filter Channels deleting all filter channel entries in this gateway

Sending messages to an EnOcean device

1. If you have added and configured the proxy point correct, only the teach in is required to send messages to a specific EnOcean device.

Please check first, if the EnOcean device you want to use is capable to understand the EnOcean Equipment Profiles that can be sending.

2. After successful teach in, messages will send with change of value of proxy points.

Handle short time response windows

Handling short time response windows is important for bidirectional EnOcean devices. In this case you can do the following:

1. Every SysmikEnOceanEvcProxyExt have a topic called Value Changed. Right click and select Link

Mark

Figure 1 - Topic on proxyExt



2. Goto the extension of the proxy point under the gateway that needs to send, right click and select Link

from "ProxyExt"

Figure 2 - Link topic to proxyExtGateway

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			Conce dearen
10.0.14.10 (EnOceanTest) : Station (EnOceanTest) : Config : Drivers : Sy	/smikEnOceanEvcNetwork : Gateway_0 : Points : Rocker : Fak	eRockerB : Proxy Ext	AX Property Sheet
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3. Choose on the left side the topic Value Changed and on the right side an action called Manuel Write,

Click OK

Figure 3 - Selection on link mark

roxy Ext [Source]		Proxy Ext [Target]	
Fault Cause	^	Status	
Enabled		Fault Cause	
Device Facets		Enabled	
Conversion		Device Facets	
Tuning Policy Name		Conversion	
Read Value		Tuning Policy Name	
Write Value	*	Read Value	
Description			
Offset		Description	
Size		Channel	
📔 Gateway Address		Fake Device	
Value Changed		📄 Manuel Write	
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ink proxyExt.valueChanged -> prox	yExt.manuelW	/rite	

Using filter channel table from the SysmikEnOceanEvcGateway

If there is too much traffic on serial line, you need to use filter channel table of the gateway. This will only receive messages from recognized EnOcean devices.

You need to activate the Filter Mode property first, before using filter channels!

1. Go to the AX Slot Sheet from the SysmikEnOceanEvcGateway

- 2. Mark all of the filterChannelX properties and right click "Config Flags"
- 3. Untick the "Hidden" mark.
- 4. Now go back to the AX Property Sheet and you will see all the filter channels
- 5. For taking the right format and setting a filter channel type in the following: ORG:ID:ID:ID:ID (e.g A5:00:2e:18:ff)
- 6. For deleting a device from a filter channel just clear the field an click "save"

EnOceanEvc Component Guides

<u>Home</u>

These component guides provides summary help on sysmikEnOceanEvc components.

EnOceanEvc Component Reference Summary

Home

Summary information is provided on components in the sysmikEnOceanEvc module, listed as follows:

sysmikEnOceanEvc-SysmikEnOceanEvcNetwork

<u>Home</u>

SysmikEnOceanEvcNetwork represents a network of manageable EnOceanEvc devices.

sysmikEnOceanEvc-SysmikEnOceanEvcDeviceFolder

<u>Home</u>

This is a folder to organize SysmikEnOceanEvcDevices or SysmikEnOceanEvcGateways in the SysmikEnOceanEvcNetwork.

sysmikEnOceanEvc-SysmikEnOceanEvcDevice

<u>Home</u>

SysmikEnOceanEvcDevice is a Niagara representation of a remote EnOceanEvc device. Each SysmikEnOceanEvcDevice resides under the stations SysmikEnOceanEvcNetwork. Each EnOceanEvc device contains device extensions including Points for modeling data (from that device) in the station.

sysmikEnOceanEvc-SysmikEnOceanEvcPointDeviceExt

<u>Home</u>

Each SysmikEnOceanEvcDevice has an Points extension (SysmikEnOceanEvcPointsDeviceExt). For more details, see Add EnOceanEvc Proxy Points.

sysmikEnOceanEvc-SysmikEnOceanEvcPointFolder

<u>Home</u>

This is a folder to organize EnOceanEvc points in the Points folder of a SysmikEnOceanEvcDevice or SysmikEnOceanEvcGateway.

sysmikEnOceanEvc-SysmikEnOceanEvcProxyExt

<u>Home</u>

The SysmikEnOceanEvcProxyExt handles the point configuration of control points in a SysmikEnOceanEvcDevice.

For more details, see Add EnOceanEvc Proxy Points.

sysmikEnOceanEvc-SysmikEnOceanEvcProxyExtRocker

Home

TheSysmikEnOceanEvcProxyExtRockerhandlesthepointconfigurationofcontrolpointsinaSysmikEnOceanEvcDeviceofspecialrockertype.For more details, seeAdd EnOceanEvc Proxy Points.

sysmikEnOceanEvc-SysmikEnOceanEvcGateway

<u>Home</u>

SysmikEnOceanEvcGateway is a Niagara representation of an EnOceanEvc gateway. Each SysmikEnOceanEvcGateway resides under the stations SysmikEnOceanEvcNetwork. Each EnOceanEvc gateway contains gateway extensions including Points for modeling data (from that gateway) in the station.

sysmikEnOceanEvc-SysmikEnOceanEvcPointGatewayExt

<u>Home</u>

Each SysmikEnOceanEvcGateway has an Points extension (SysmikEnOceanEvcPointsGatewayExt). For more details, see <u>Add EnOceanEvc Gateway Proxy Points</u>.

sysmikEnOceanEvc-SysmikEnOceanEvcProxyExtGateway

<u>Home</u>

The SysmikEnOceanEvcProxyExtGateway handles the point configuration of control points in a SysmikEnOceanEvcgateway.

For more details, see <u>Add EnOceanEvc Gateway Proxy Points</u>.