



## SNMP Service SL

This library makes it possible to read device information of printers, routers etc. via the SNMP protocol. The library provides function blocks to send and receive SNMP messages. The package contains the SNMP library and example applications.

### Product description

Supported SNMP features:

- SNMP GET: Request a value.
- SNMP GET\_NEXT: Request a value and get the OID from the next value.
- SNMP Agent: Enables devices to request values from the control (agent).
- SNMP TRAP: Send and receive TRAP/INFORM telegrams.
- SNMP SET: Set values via SNMP

### Supported SNMP Versions

- SNMP V1
- SNMP V2c
- SNMP V3

The library `SNMP Service SL` is divided into four categories (see folder `Function Blocks`):

Agent: Function blocks of the SNMP agent.

GET: Function block to request values.

Trap: Function blocks to send and receive TRAP messages.

SET: Function block to set SNMP values.

### SNMP V3

SNMP V3 User can be added via the functions `CreateRWUser` and `CreateUser`.

### Example SNMP Service SL Example.project / Application SNMPAgentExample

The example shows how to use the function block `SNMP_AGENT` and how to register values. The visualization displays the status of the agent (see *figure 1*).

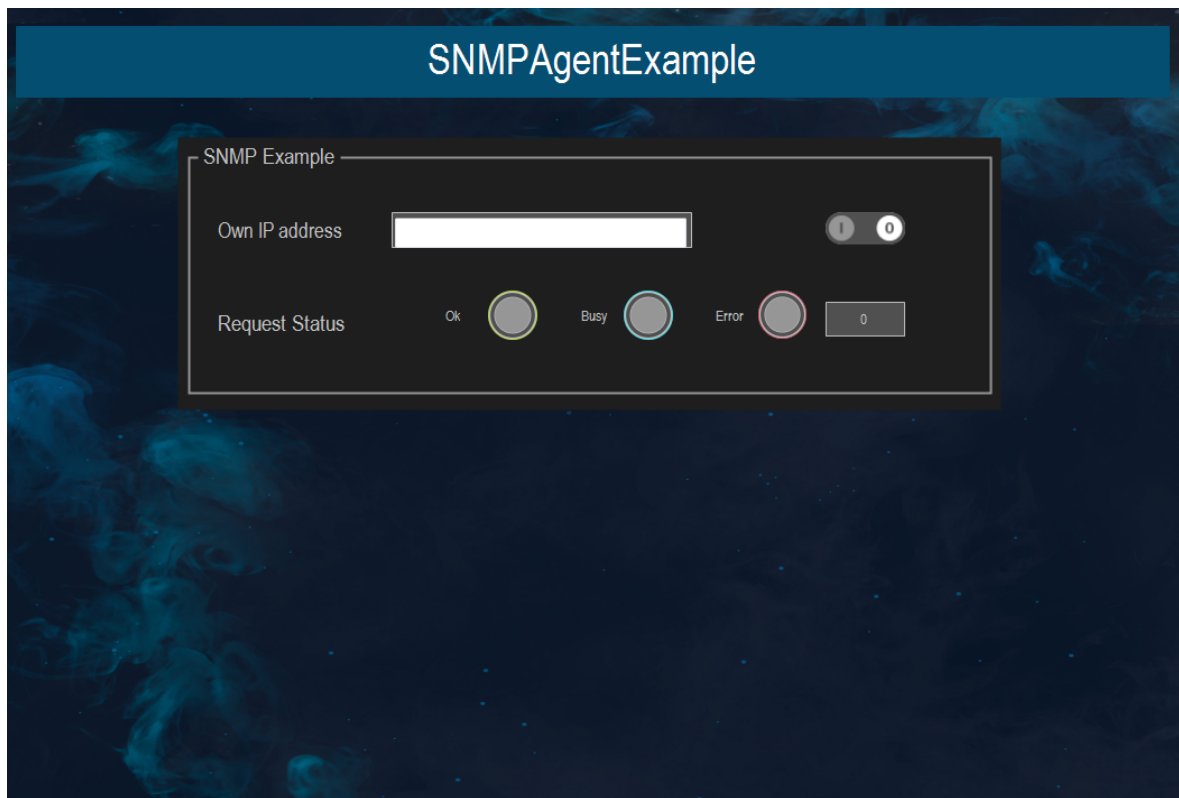


Figure 1: SNMPAgentExample

### Example SNMP Service SL Example.project / Application SNMPGetNextExample

This example shows how to send a GET\_NEXT request via the function block `SNMP_GET_REQUEST`. The result of the request will be displayed in the visualization (see figure 2).

Please note that the value of an OID is stored in the next data set. The IP addresses and the OID can be configured via the visualization.

## SNMPGetNextExample

SNMP Example

IP address agent

Own IP address

OID

Get Values

Error

0

	OID	Value
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		

Figure 2: *SNMPGetNextExample*

### Example SNMP Service SL Example.project / Application SNMPSetExample

This example shows how to send a SET request via the function block `SNMP_SET` (see figure 4).

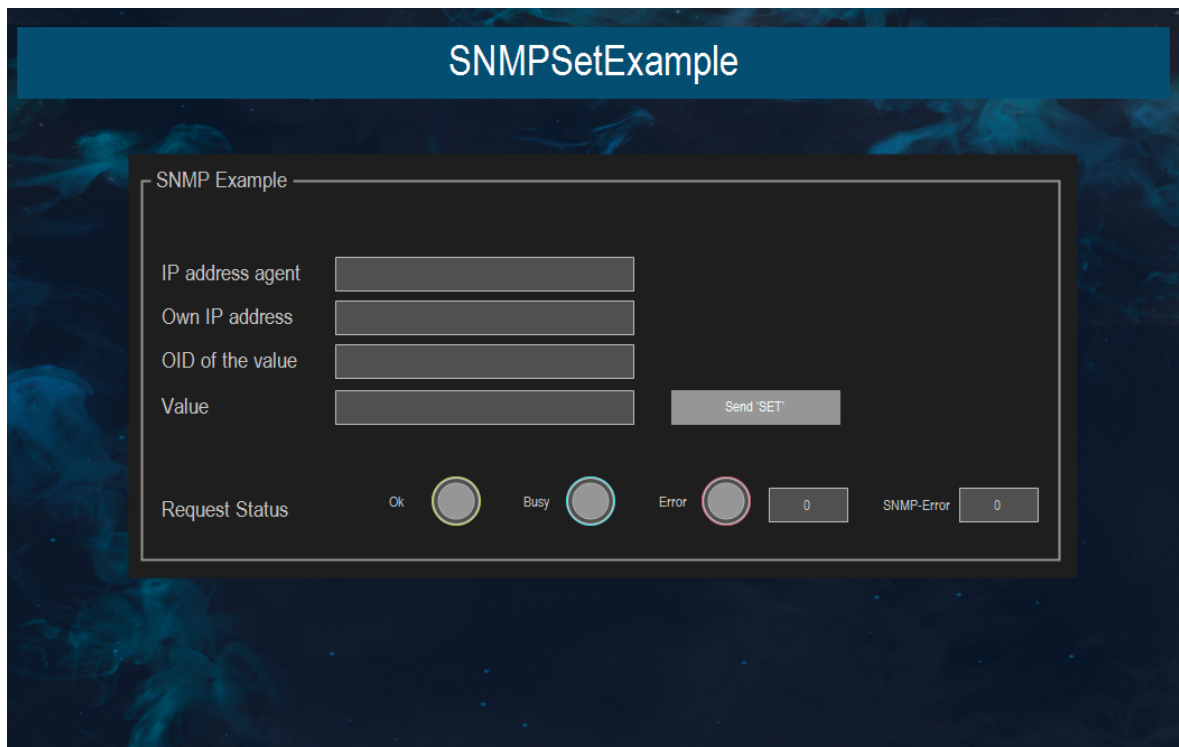


Figure 4: *SNMPSetExample*

### Example SNMP Service SL Example.project / Application SNMPTrapReceiver

This example shows how to receive TRAP messages by the function block `SNMP_TRAP_RECEIVER`. The received values are displayed in a table (see figure 5).

## SNMPTrapReceiver

SNMP TRAP Receiver

Own IP address

Last enterprise

Last sender IP

Error

0

	OID	Value
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		

Figure 5: SNMPTrapReceiver

### Example SNMP Service SL Example.project / Application SNMPTrapSender

The example shows how to send TRAP messages via the function block `SNMP_TRAP_SENDER` (see figure 6).

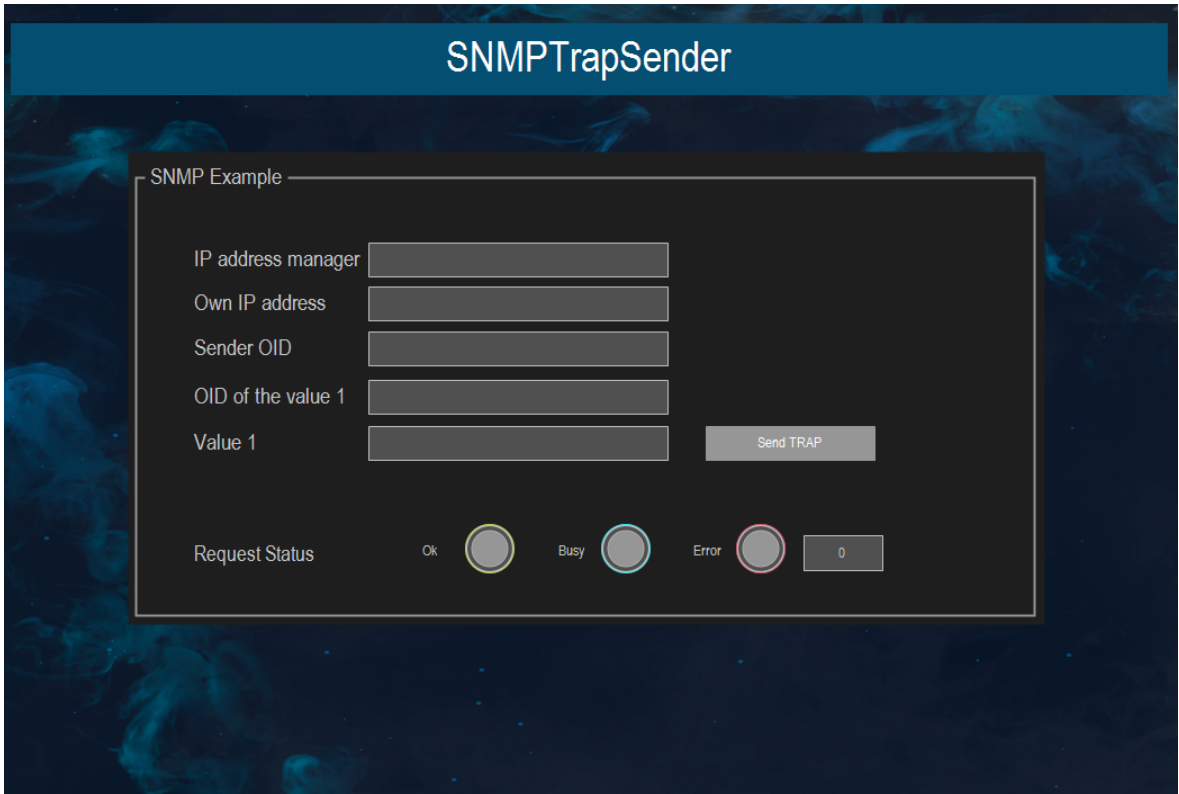


Figure 6: SNMPTrapSender

## General information

### Supplier:

CODESYS GmbH  
 Memminger Strasse 151  
 87439 Kempten  
 Germany

### Support:

Technical support is not included with this product. To receive technical support, please purchase a CODESYS Support Ticket.

<https://support.codesys.com>

### Item:

SNMP Service SL

### Item number:

### Sales/Source of supply:

CODESYS Store  
<https://store.codesys.com>

### Included in delivery:

CODESYS Package with library and example project

## System requirements and restrictions

<b>Programming System</b>	CODESYS Development System V3.5.15.0 or higher
<b>Runtime System</b>	CODESYS Control V3.5.15.0 or higher
<b>Supported Platforms/ Devices</b>	All  Note: Use the project "Device Reader" to find out the supported features of your device. "Device Reader" is available for free in the CODESYS Store.
<b>Additional Requirements</b>	-
<b>Restrictions</b>	Supported SNMP versions: SNMP V1, SNMP V2c and SNMP V3
<b>Licensing</b>	License activation optional on CODESYS Key or Soft Key (Soft Key: free of charge component of CODESYS Controls) Licensing via Soft Key is strictly linked to hardware.  Note: Without a license the software runs for 30 minutes in demo mode.

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**Required Accessories**

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*Note: Technical specifications are subject to change. Errors and omissions excepted. The content of the current online version of this document applies.*

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