



SNMP

BIMdance SNMP SmartConnector

Datasheet

Version 2.0.4

BIMdance SNMP SmartConnector

SNMP Manager

BIMdance SNMP SmartConnector is middleware that can be plugged into the Schneider Electric SmartConnector Framework as an extension. BIMdance SNMP SmartConnector allows communication between SNMP agents and EWS servers corresponding to user-provided configuration. The EWS server generates EBO alarms when TRAP messages are received. This extension supports the following versions of the SNMP protocol: v1, v2, and v3.

SNMP Manager Configurator

The BIMdance SNMP SmartConnector includes the SNMP Manager Configurator module, which allows the creation of some configuration of SNMP Manager to receive required OIDs and TRAP messages. The main functionalities of the SNMP Manager Configurator are:

- Discovering SNMP agents in the LAN or manually adding them to the created configuration;
- SNMP v3 security settings provided;
- Allowing SNMP v3 engine configuration;
- Allow users to choose required MIB entities for sending it to the EWS server (objects, tables, TRAPS, etc.)
- Vendors MIBs parsing;
- SNMP communication logging;

The main window of SNMP Manager Configurator

The main window of the SNMP Manager Configurator shows the list of discovered or added SNMP agents in the current configuration. Also, it shows the statuses of SNMP agents and communication logs.

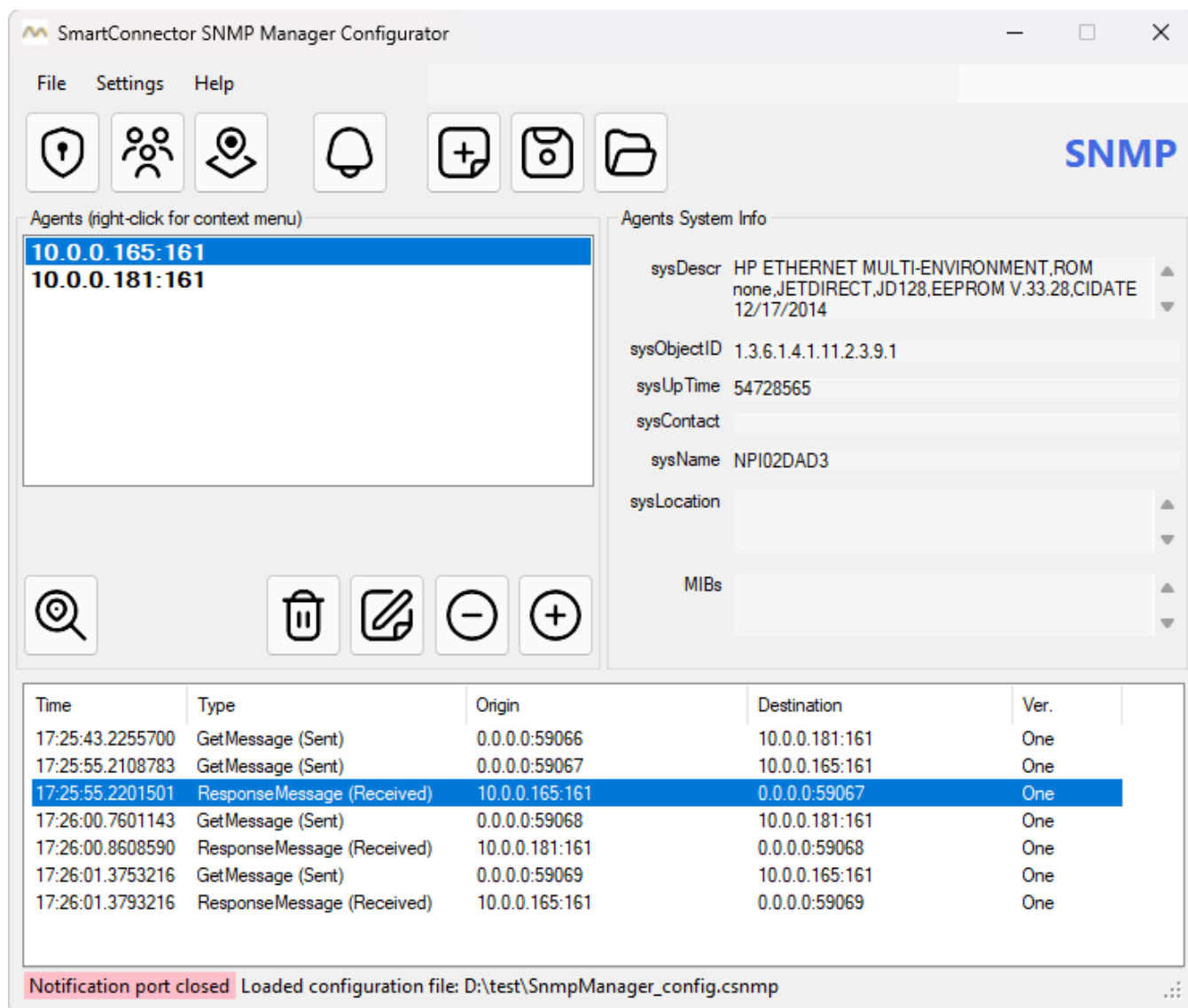


Fig. 1. Main window of SNMP Manager Configurator

SNMP communication logging

SNMP Manager Configurator allows troubleshooting of SNMP communication issues using an integrated logger with a detailed problem description and notable indication.

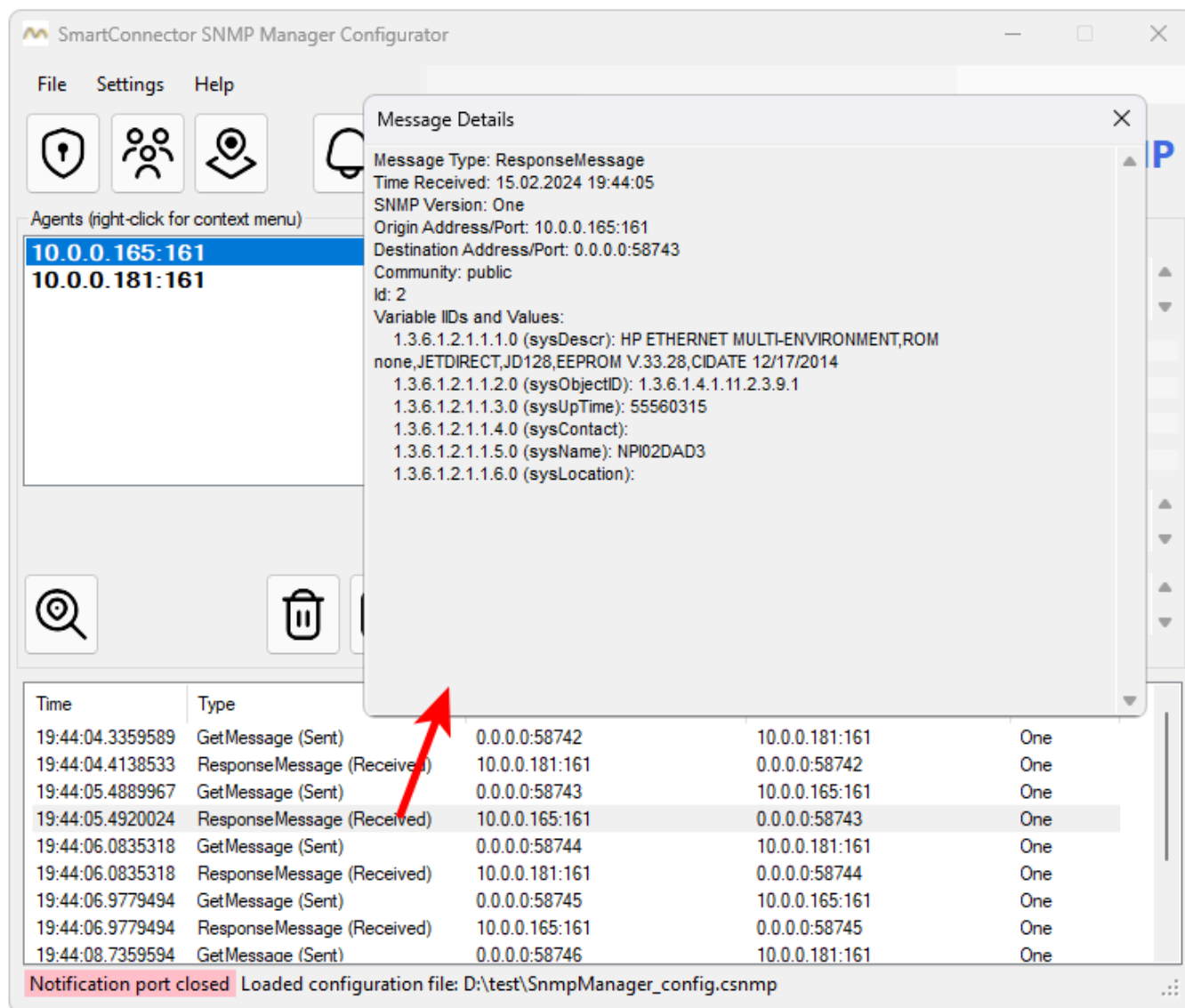


Fig. 2. Response details in logger.

SNMP agent configuration

SNMP Manager Configurator lets you choose required objects from vendor or standard MIB files.

Values from selected objects will be sent to the EWS server. Users can load vendor MIB files.

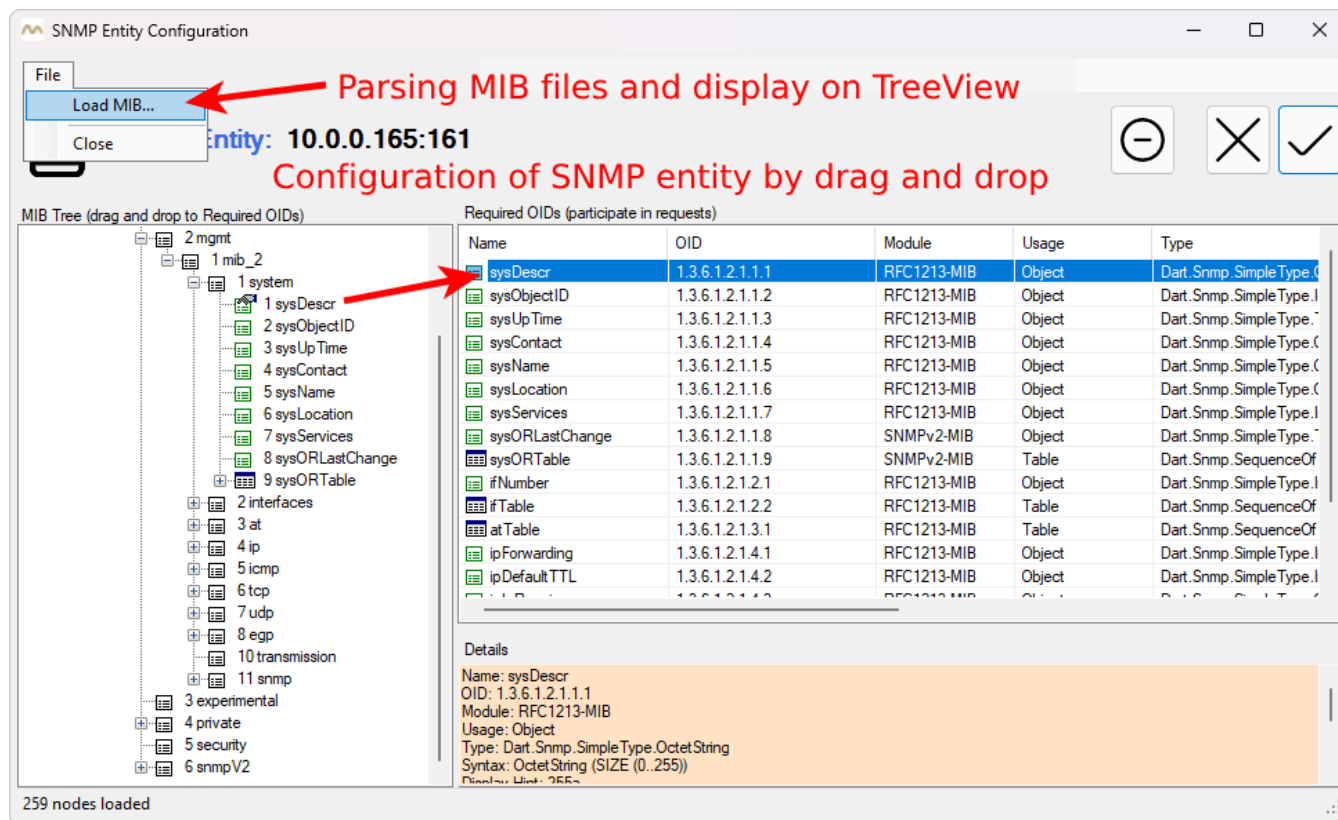

















Fig. 3. SNMP device configuration.

SNMP responses

After choosing the required MIB objects, users can send requests to the agent and view responses.

Object Values Request Results
✕


SNMP Entity: 10.0.0.181:161

Name	OID	Value	Type
 sysDescr	1.3.6.1.2.1.1.1	Brother NC-8100w, Firm...	Dart.Snmp.SimpleType.OctetString
 sysObjectID	1.3.6.1.2.1.1.2	1.3.6.1.4.1.2435.2.3.9.1	Dart.Snmp.SimpleType.Id
 sysUpTime	1.3.6.1.2.1.1.3	18884910	Dart.Snmp.SimpleType.TimeTicks
 sysContact	1.3.6.1.2.1.1.4		Dart.Snmp.SimpleType.OctetString
 sysName	1.3.6.1.2.1.1.5	BRWF4B7E29ECE9B	Dart.Snmp.SimpleType.OctetString
 sysLocation	1.3.6.1.2.1.1.6		Dart.Snmp.SimpleType.OctetString
 sysServices	1.3.6.1.2.1.1.7	72	Dart.Snmp.SimpleType.Integer
 sysORLastChange	1.3.6.1.2.1.1.8	0	Dart.Snmp.SimpleType.TimeTicks
 ifNumber	1.3.6.1.2.1.2.1	3	Dart.Snmp.SimpleType.Integer
 ipForwarding	1.3.6.1.2.1.4.1	2	Dart.Snmp.SimpleType.Integer
 ipDefaultTTL	1.3.6.1.2.1.4.2	64	Dart.Snmp.SimpleType.Integer
 ipInReceives	1.3.6.1.2.1.4.3	250886	Dart.Snmp.SimpleType.Counter
 ipInHdrErrors	1.3.6.1.2.1.4.4	0	Dart.Snmp.SimpleType.Counter
 ipInAddrErrors	1.3.6.1.2.1.4.5	14	Dart.Snmp.SimpleType.Counter

Details

Name: sysDescr
 OID: 1.3.6.1.2.1.1.1
 Value: Brother NC-8100w, Firmware Ver.1.02 (13.03.07),MID 84E-401
 Module: RFC1213-MIB
 Usage: Object
 Type: Dart.Snmp.SimpleType.OctetString
 Syntax: OctetString (SIZE (0..255))
 Display-Hint: 255a
 Access: ReadOnly
 Status: Mandatory
 Description: A textual description of the entity. This value should include the full name and version identification of the system's hardware type, software operating-system, and networking software. It is mandatory that this only contain printable ASCII characters.

Fig. 4. SNMP responses.

EBO Workstation SNMP data presentation

EBO workstation can receive SNMP data from agents through BIMdance SNMP SmartConnector.

ab	sysContact	1.3.6.1.2.1.1.4	10.0.0.106_1.3.6.1.2.1.1.4	string	Ilya Likhopavlov YAHOO	Good
ab	sysDescr	1.3.6.1.2.1.1.1	10.0.0.106_1.3.6.1.2.1.1.1	string	Hardware: Intel®64 Family 6 Model 60 Stepping 3 AT/AT COMPAT...	Good
ab	sysLocation	1.3.6.1.2.1.1.6	10.0.0.106_1.3.6.1.2.1.1.6	string	Home PC	Good
ab	sysName	1.3.6.1.2.1.1.5	10.0.0.106_1.3.6.1.2.1.1.5	string	DESKTOP-36PSEBF	Good
ab	sysObjectID	1.3.6.1.2.1.1.2	10.0.0.106_1.3.6.1.2.1.1.2	string	1.3.6.1.4.1.311.1.1.3.1.1	Good
ab	sysServices	1.3.6.1.2.1.1.7	10.0.0.106_1.3.6.1.2.1.1.7	long	76	Good
ab	sysUpTime	1.3.6.1.2.1.1.3	10.0.0.106_1.3.6.1.2.1.1.3	long	53 172 139	Good
ab	tcpActiveOpens	1.3.6.1.2.1.6.5	10.0.0.106_1.3.6.1.2.1.6.5	long	9 358	Good
ab	tcpAttemptFails	1.3.6.1.2.1.6.7	10.0.0.106_1.3.6.1.2.1.6.7	long	76	Good
ab	tcpEstabResets	1.3.6.1.2.1.6.8	10.0.0.106_1.3.6.1.2.1.6.8	long	1 826	Good
ab	tcpInErrs	1.3.6.1.2.1.6.14	10.0.0.106_1.3.6.1.2.1.6.14	long	0	Good
ab	tcpInSegs	1.3.6.1.2.1.6.10	10.0.0.106_1.3.6.1.2.1.6.10	long	1 652 951	Good
ab	tcpMaxConn	1.3.6.1.2.1.6.4	10.0.0.106_1.3.6.1.2.1.6.4	long	-1	Good
ab	tcpOutRsts	1.3.6.1.2.1.6.15	10.0.0.106_1.3.6.1.2.1.6.15	long	6 001	Good
ab	tcpOutSegs	1.3.6.1.2.1.6.11	10.0.0.106_1.3.6.1.2.1.6.11	long	1 828 911	Good
ab	tcpPassiveOpens	1.3.6.1.2.1.6.6	10.0.0.106_1.3.6.1.2.1.6.6	long	1 181	Good
ab	tcpRetransSegs	1.3.6.1.2.1.6.12	10.0.0.106_1.3.6.1.2.1.6.12	long	15 062	Good
ab	tcpRtoAlgorithm	1.3.6.1.2.1.6.1	10.0.0.106_1.3.6.1.2.1.6.1	long	3	Good
ab	tcpRtoMax	1.3.6.1.2.1.6.3	10.0.0.106_1.3.6.1.2.1.6.3	long	-1	Good
ab	tcpRtoMin	1.3.6.1.2.1.6.2	10.0.0.106_1.3.6.1.2.1.6.2	long	10	Good
ab	udpInDatagrams	1.3.6.1.2.1.7.1	10.0.0.106_1.3.6.1.2.1.7.1	long	5 258 752	Good
ab	udpInErrors	1.3.6.1.2.1.7.3	10.0.0.106_1.3.6.1.2.1.7.3	long	0	Error
ab	udpNoPorts	1.3.6.1.2.1.7.2	10.0.0.106_1.3.6.1.2.1.7.2	long	22 869	Good
ab	udpOutDatagrams	1.3.6.1.2.1.7.4	10.0.0.106_1.3.6.1.2.1.7.4	long	0	Error

Fig. 5. EcoStruxure Building Operation SNMP data receiving.

Software requirements

BIMdance SNMP SmartConnector tested on the following operating systems:

- Windows 7
- Windows 8.1 x64
- Windows 10 x64
- Windows 11 x64
- Windows Server 2008 x64
- Windows Server 2012 x64
- Windows Server 2016 x64
- Windows Server 2019 x64
- Windows Server 2022 x64

This software requires .NET framework 4.8, SmartConnector v2.5.4 or later, and EcoStruxure Building Operation v5.0 or later.

Ordering

Product Name: BIMdance SNMP SmartConnector

Art Number: bimdance-snm-001

Contacts

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