

SmartConnector

SNMP

Extension

Datasheet

Version 1.0.0



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SNMP Manager

“SmartConnector.SnmpExtension” is middleware, that can be plugged into “Schneider-Electric SmartConnector Framework” as extension. “SNMP Extension” allow to communicate between SNMP agents and EWS server corresponding to user provided configuration. EWS server generate EBO alarms when TRAP-messages received. This extension supports following versions of SNMP protocol: v1, v2 и v3.

SNMP Manager Configurator

The middleware “SmartConnector.SnmpExtension” includes “SNMP Manager Configurator” module, which allow to create some configuration of “SNMP Manager” in order to receive required OID’s and TRAP-messages. The main functionality of “SNMP Manager Configurator” is:

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



Main window of SNMP Manager Configurator

Main window of “SNMP Manager Configurator” shows the list of discovered or added SNMP agents in current configuration. Also it shows statuses of SNMP agents and communication log.

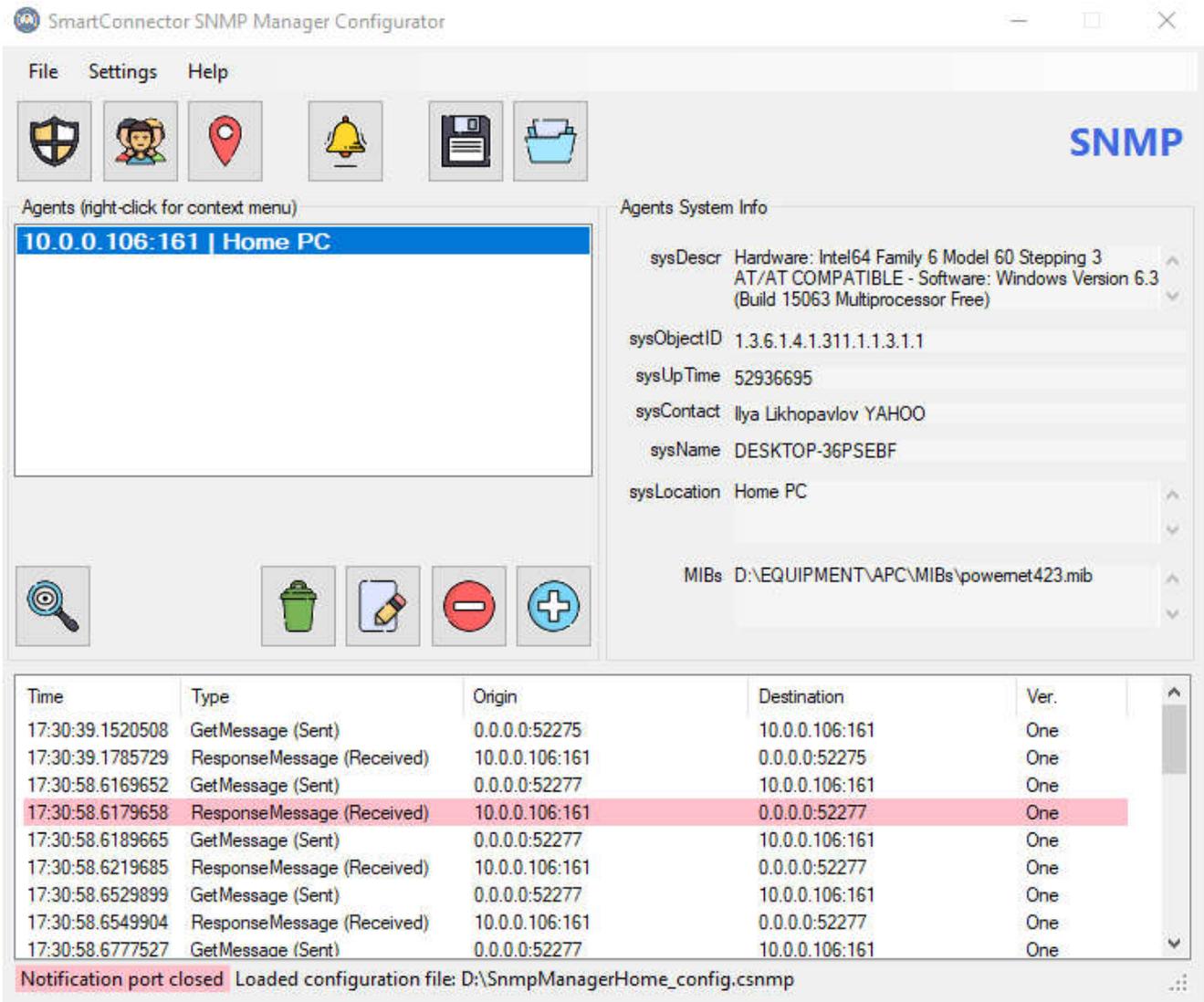


Fig. 1. Main window of SNMP Manager Configurator



SNMP communication logging

“SNMP Manager Configurator” allow to troubleshoot SNMP communication issues by integrated logger with detailed problem description and notable indication.

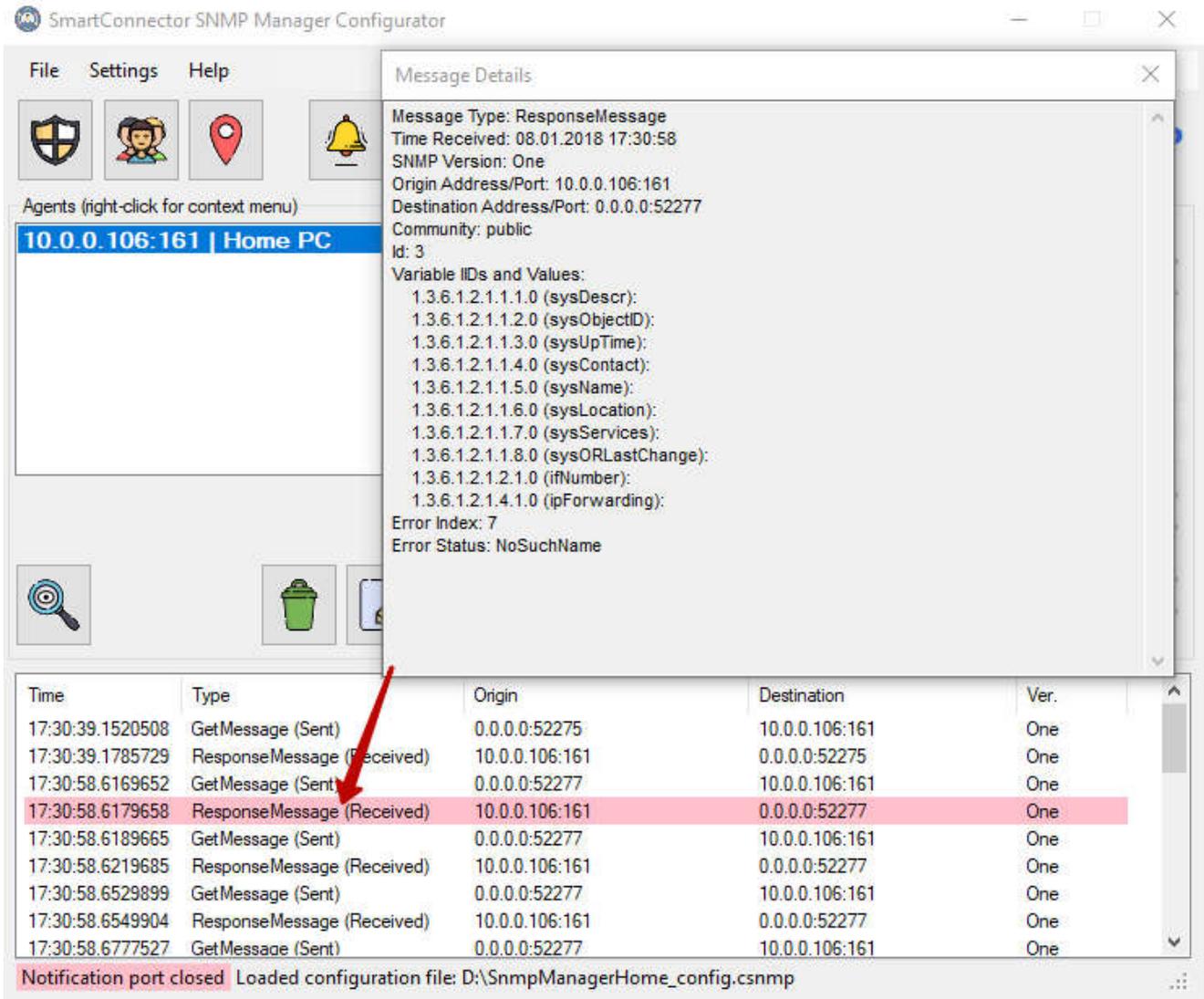


Fig. 2. Response details in logger.



SNMP agent configuration

“SNMP Manager Configurator” allows to choose required objects from vendor or standard MIB files. Values from selected objects will be send to EWS server. Users has possibilities to load vendors MIB files.

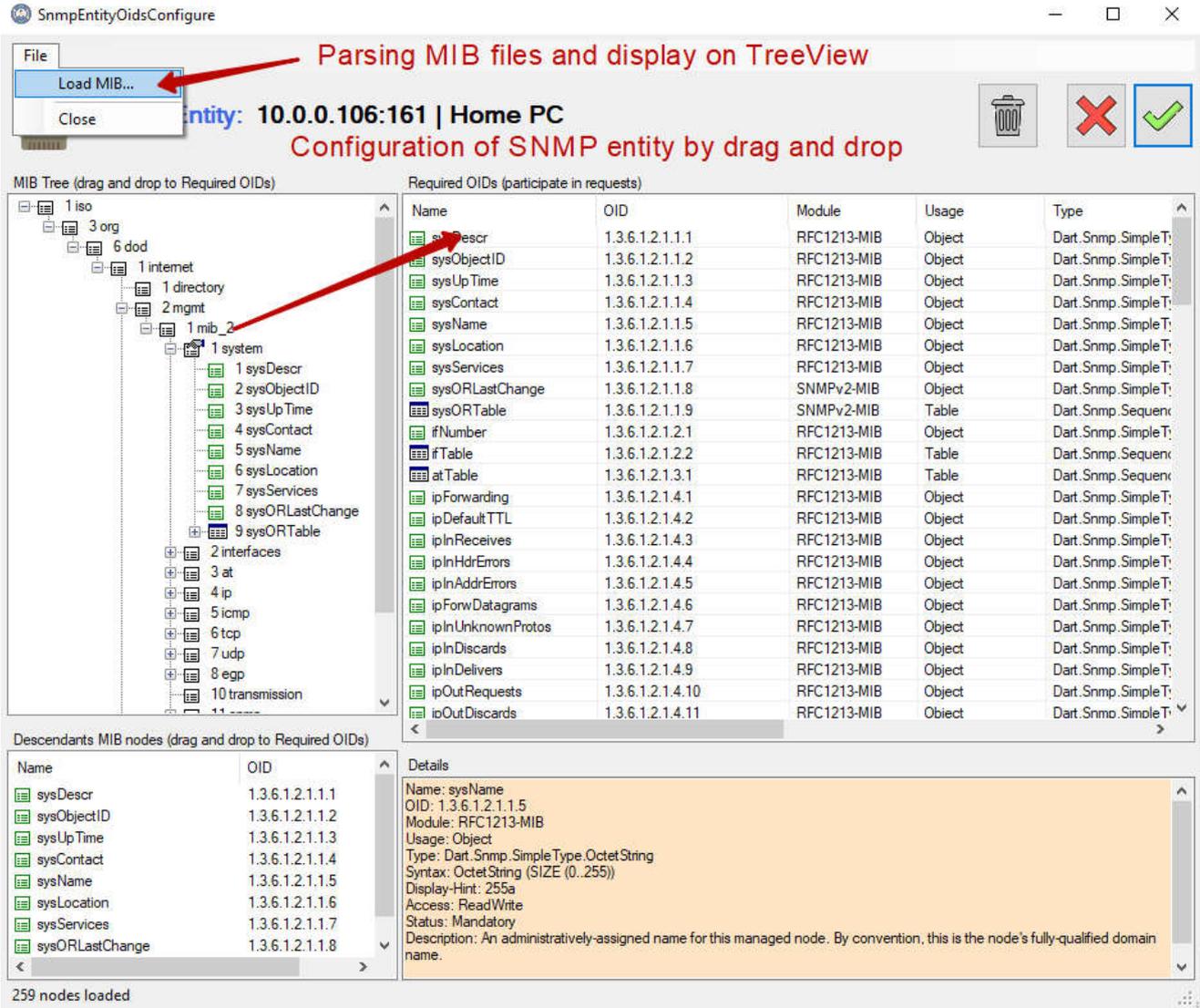


Fig. 3. SNMP device configuration.



SNMP responses

After choosing required MIB objects users can send request to the agent and view response in useful presentation.

ObjectValuesPresentForm

 **SNMP Entity: 10.0.0.106:161 | Home PC**

Name	OID	Value	Type
 sysDescr	1.3.6.1.2.1.1.1	Hardware: Intel64 Family ...	Dart.Snmp.SimpleType.OctetString
 sysObjectID	1.3.6.1.2.1.1.2	1.3.6.1.4.1.311.1.1.3.1.1	Dart.Snmp.SimpleType.Id
 sysUpTime	1.3.6.1.2.1.1.3	53070130	Dart.Snmp.SimpleType.TimeTicks
 sysContact	1.3.6.1.2.1.1.4	Ilya Likhopavlov YAHOO	Dart.Snmp.SimpleType.OctetString
 sysName	1.3.6.1.2.1.1.5	DESKTOP-36PSEBF	Dart.Snmp.SimpleType.OctetString
 sysLocation	1.3.6.1.2.1.1.6	Home PC	Dart.Snmp.SimpleType.OctetString
 sysServices	1.3.6.1.2.1.1.7	76	Dart.Snmp.SimpleType.Integer
 ifNumber	1.3.6.1.2.1.2.1	23	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	128	Dart.Snmp.SimpleType.Integer
 ipInReceives	1.3.6.1.2.1.4.3	6927438	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	346	Dart.Snmp.SimpleType.Counter
 ipFowDatagrams	1.3.6.1.2.1.4.6	0	Dart.Snmp.SimpleType.Counter
 ipInUnknownProtos	1.3.6.1.2.1.4.7	0	Dart.Snmp.SimpleType.Counter

Details

Name: sysDescr
 OID: 1.3.6.1.2.1.1.1
 Value: Hardware: Intel64 Family 6 Model 60 Stepping 3 AT/AT COMPATIBLE - Software: Windows Version 6.3 (Build 15063 Multiprocessor Free)
 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.

Close

Fig. 4. SNMP responses.



EBO Workstation SNMP data presentation

EBO workstation can receive SNMP data from agents through “SmartConnector.SnmpExtension”.

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
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
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
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
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
sysServices	1.3.6.1.2.1.1.7	10.0.0.106_1.3.6.1.2.1.1.7	long	76	Good
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
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
tcpAttemptFails	1.3.6.1.2.1.6.7	10.0.0.106_1.3.6.1.2.1.6.7	long	76	Good
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
tcpInErrs	1.3.6.1.2.1.6.14	10.0.0.106_1.3.6.1.2.1.6.14	long	0	Good
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
tcpMaxConn	1.3.6.1.2.1.6.4	10.0.0.106_1.3.6.1.2.1.6.4	long	-1	Good
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
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
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
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
tcpRtoAlgorithm	1.3.6.1.2.1.6.1	10.0.0.106_1.3.6.1.2.1.6.1	long	3	Good
tcpRtoMax	1.3.6.1.2.1.6.3	10.0.0.106_1.3.6.1.2.1.6.3	long	-1	Good
tcpRtoMin	1.3.6.1.2.1.6.2	10.0.0.106_1.3.6.1.2.1.6.2	long	10	Good
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
udpInErrors	1.3.6.1.2.1.7.3	10.0.0.106_1.3.6.1.2.1.7.3	long	0	Error
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
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

“SmartConnector.SnmpExtension” tested on the following operation systems:

- Windows 7
- Windows 8.1 x64
- Windows 10 x64
- Windows Server 2008 x64
- Windows Server 2012 x64

This software required .NET framework 4.6.1

Ordering

Product Name: SmartConnector.SnmpExtension

Order Number: CL-SCSME301117

Contacts

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