

UDS ATOM

Dedicated software
for OT/IT convergence

Reference Manual

Sourcer SNMP

Index

1	Introduction.....	3
2	General configuration.....	4
3	SNMP Agent configuration	5
3.1	Specific configuration	5
3.1	Tags configuration.....	5
3.1.1	Input tags.....	5



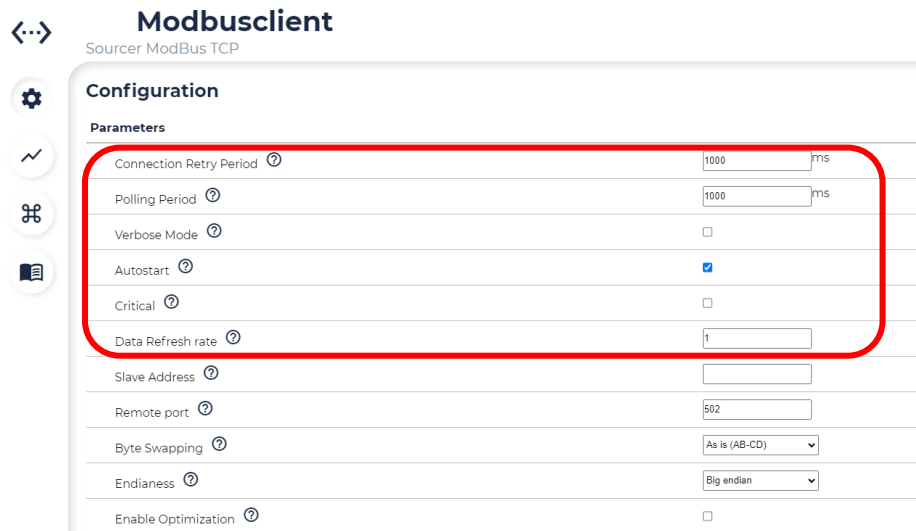
1 Introduction

The UDS Atom SNMP Client module allows data to be exchanged with SNMP V1 and V2 agents, making it available to other systems through any of the Data Delivery modules implemented within the UDS Atom platform, such as MQTT, OPC UA Server, REST API Server, etc.

The SNMP Client module seamlessly integrates monitoring and analyzing of Managed and Unmanaged SNMP supported Ethernet network devices into HMI, SCADA, Historian, or MES software packages. Network administrators and automation professionals can now reliably incorporate the status of Routers, Switches, PCs/Servers, Printers, UPS devices, remote I/O modules, and other Managed or Unmanaged devices directly into their management systems.



2 General configuration



Modbusclient
Sourcer ModBus TCP

Configuration

Parameters

Connection Retry Period [?]	1000	ms
Polling Period [?]	1000	ms
Verbose Mode [?]	<input type="checkbox"/>	
Autostart [?]	<input checked="" type="checkbox"/>	
Critical [?]	<input type="checkbox"/>	
Data Refresh rate [?]	1	
Slave Address [?]		
Remote port [?]	502	
Byte Swapping [?]	As is (AB-CD)	
Endianness [?]	Big endian	
Enable Optimization [?]	<input type="checkbox"/>	

Every sourcer have a common set of parameters (highlighted in red on the above figure)

- **Connection Retry Period:** Time before trying to re-open the connection after a failed attempt, displayed in milliseconds.
- **Polling Period:** The polling period (in milliseconds) is the amount of time that passes before the sourcer communicates updated values to UDS Atom.
- **Verbose Mode:** When this option is set to true, the sourcer provides additional information as to what the sourcer is doing in the logbook.
- **Autostart:** When **Autostart** is set to true, the sourcer will start automatically after UDS Atom startup. If set to false, the sourcer will be in **Stand-by** state.
- **Critical:** When this option is set to true, the sourcer will send a notification when it's down.
- **Data Refresh rate:** This parameter determines the rate which data is sent to the hub. This parameter is tied to **Poll Period**. For example, setting a **Data Refresh Rate** to 10 with a **Poll Period** to 2000 means that a bunch of 10 samples will be sent every 20 seconds.



3 SNMP Agent configuration

3.1 Specific configuration

Ricoh
Ssourcer SNMP
Parameters

Connection Retry Period	1000	ms
Polling Period	5000	ms
Verbose Mode	<input type="checkbox"/>	
Autostart	<input checked="" type="checkbox"/>	
Critical	<input type="checkbox"/>	
Data Refresh rate	1	
Community	public	
Version	SNMPv2	
Agent IP Address	192.168.117.200	
Tags list	<pre>[{ "SysLabel": "1.3.6.1.2.1.43.5.1.1.16.1", "UserLabel": "prtGeneralPrinterName", "OID": "1.3.6.1.2.1.43.5.1.1.16.1", "Unit": "", "HighPrio": false, "Metadata": null },]</pre>	
Timeout	3000	

SNMP Agent have some specific parameters among the followings:

- Agent IP Address: IP address of the target device
- Community: Name of the community configured in the target device to use for polling
- Version: Protocol version. SNMPv1, SNMPv2 versions are available. Default value is SNMPv1
- Timeout: Maximum amount of time to wait for a valid response, displayed in milliseconds. The valid range is 100ms to 60000ms. The default value is set to 3000ms
- Tags List: Array of OID to be polled by the SNMP agent. This parameter is a JSON string as below.

3.1 Tags configuration

3.1.1 Input tags

Input tags are defined in a JSON array of objects like the following:

```
[  
  {  
    "SysLabel": "sysDescr",  
    "UserLabel": "SNMP agent description",  
    "OID": "1.3.6.1.2.1.1.1.0",  
    "Unit": "-",  
    "HighPrio": false,  
    "Metadata":  
      {  
        "MyText": "information about data"  
      }  
  }  
]
```



```
}  
]
```

Each tag is defined by:

Parameter	Type	Required	Description
SysLabel	string	NO	unique Id of the channel (optional). if this field is missing, Channel = OID field value
UserLabel	string	NO	Caption of the channel. A more human readable name for the channel. If empty, field is like Channel field
OID	string	YES	object identifier to be polled
Unit	string	NO	Unit of the read value
HighPrio	boolean	NO	If true result of the virtual channel will be computed at high priority by pushers
Metadata	JSON object	NO	Free JSON object to put information on the channel



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