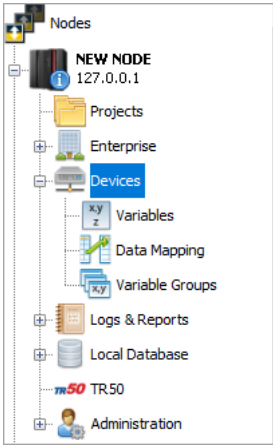


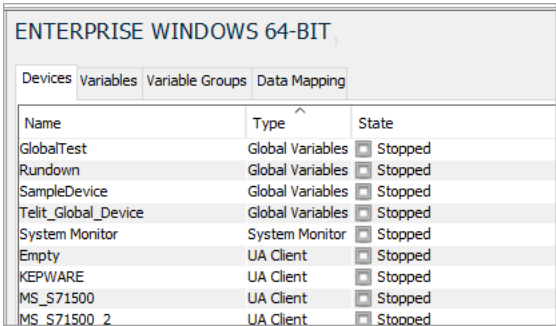
Viewing devices

The **Devices** tab provides a list of devices defined on the node. To use the **Devices** tab, follow these steps:

1. From Workbench left pane, expand the node whose devices you want to view.



2. Click **Devices**.



The **Devices** tab appears on the right pane.

3. The **Devices** tab provides a table format that lists the devices defined on the node. The top section of the **Devices** tab provides these columns:

Column name	Description
Name	The name of the device. The device name must be unique on the node.
Type	The device type or model.
State	The device state, which can be: Started - the device is active. Its variables can be accessed (read and write) by triggers on this node. Stopped - the device is not active. Its variables can not be accessed. Disabled - indicating there is a problem communicating with the physical device. Starting and Stopping - states that are temporary transition states.
Last State Changed	Date when the state of the device is last changed.
Last Modified	Date when the definition of the device is last changed.
Status	Indicates the health of the device. Zero indicates the device is operating normally. Non-zero indicates a communication error status. An error occurred between the node and the physical device.
Ext. Status	The Extended Status. When the Status column contains a non-zero value, the Ext. Status column contains the manufacturer specific error code that provides additional detail into what caused the error.

Status tab

When a device row in the table is selected, the middle portion of right hand pane provides a **Status**, **Properties** and **Attributes** tab. For Started devices, the **Status** tab displays read-only runtime statistics for the selected device.

Status	Properties	Attributes
Overview		
Start Time (ms):	23	44 Reads
Stop Time (ms):	0	Last Read: 2020-10-09 22:00:10 Avg Read (ms): 0
Avg Queue Wait (ms):	1	55 Writes
Queue Depth:	0	Last Write: 2020-10-09 22:00:08 Avg Write (ms): 0

The **Overview** and **Reads** panes provide information concerning the performance of the selected device as follows:

Parameter	Description
Start Time	The amount of time needed to start the device. The time shown is in milliseconds.
Stop Time	The amount of time needed to stop the device. The time shown is in milliseconds. For devices that respond quickly, this stop time can be listed as zero.
Avg Queue Wait	The average time a read or write device access request waits on the device's pending queue before it is processed.
Queue Depth	The current number of read or write device access requests that are on the device's pending queue waiting to be processed.
nnnn Reads	nnnn indicates the number of read requests made against the variables on the module. The read requests could have come from either the execution of a trigger accessing the variables or a manual read request from the Variables tab. Last Read: Indicates the time of the last read request. Avg Read (ms): Indicates the average amount of time needed to read a variable from the device. The count continues to increment as the device is accessed.
nnnn Writes	nnnn indicates the number of write requests made against the variables on the device. Last Write: Indicates the time of the last write request. Avg Write (ms): Indicates the average amount of time needed to write a variable to the device. The count continues to increment as the device is accessed.

The **LatestErrors** section provides error information on any errors that were encountered when interacting with the device.

Latest Errors					
Last Occurrence	First Occurrence	Variable	Status	Ext. Status	Repeats
Tue Jun 26 16...	Tue Jun 26 16...	D[2]	-6207	0x0	22

In the example, an error occurred when attempting to access a device variable name D[2] on a device that is stopped. The **Status** column shows the first occurrence of the -6207 error and the time associated with the most recent occurrence of the -6207 error.

Column name	Description
Last Occurrence	Time associated with the most recent occurrence of the error.
First Occurrence	Time associated with the first occurrence of the error.
Variable	Name of the device variable.
Status	The status code for the error.
Ext. Status	The extended status which indicates the manufacturer specific error code.
Repeats	Indicates the number of times the error occurred between the times of the first occurrence and last occurrence

The **Latest Errors** right pane provides columns with information concerning errors for the selected device as follows:

Properties tab

The Properties tab displays properties of the device.

Status	Properties
Name:	OPC UA Client CERTIFICATE Siemens USER Secured Only
Type:	UA Client
Endpoint URL:	opc.tcp://172.27.14.136:4840
Timeout:	60000
Minimum String Size:	64
Display Tags as Structures:	False
Authentication Settings:	username/password
Username:	user1
Security Policy:	Basic128Rsa15
Message Security Mode:	Sign and Encrypt
Max Nodes per Browse:	65000
Max Nodes per Read:	65000
Enumeration Timeout:	65000
Pause Rate:	20

Attributes tab

For Started devices, the Attributes tab is displays additional information. Some of the attributes displayed are device vendor specific.

Status	Properties	Attributes	
^			
Attribute		Value	
Structure Count		3	
Structure Member Count		9	
Total Variable Count		80896	
Variable Count		14	

The **Attributes** tab has two columns:

Column name	Description
Attribute	The name of an attribute supported by the device.
Value	The value for the attribute.