



Energy AnalytiX Quick Connect Meters



APPLICATION NOTE

August 2014

Description: Guide to connect Energy AnalytiX meters to OPC server tags faster and easier

General Requirement: Energy AnalytiX v10.85 (or later), Installation of Modbus OPC Server 3.53 (or later), basic understanding of Energy AnalytiX.

Introduction

Energy AnalytiX offers the ability to import manufacturer data from an XML file into the created equipment classes. It is possible to configure the metered tags in equipment classes, and related tags in equipment properties, creating aliases for both types of tags as needed.

Whenever the equipment class is "instantiated", the meter tags from the equipment class can be exported to an ICONICS Modbus OPC server.

The following application note assumes that a Meter Type and Utility Source have already been created.

Creating an Equipment Class

1. Open Workbench-SL from the Start Menu
2. Under the AssetWorX provider in Equipment classes a new Equipment Class will need to be created
3. The Energy AnalytiX extension needs to be added
4. Enable and change Asset Type to Meter
5. The Configure Meter button will show the following:

NOTE: If the Meter Type or Utility Source options are blank, they will need to be created before the Meter will be able to be created.

Figure 1 - Configure Meter Data

Importing Manufacturer Meter Data

It is the combination of the selected Meter Folder and Manufacturer that will result in auto-configuring the required meter information from an existing XML document - sourced from installation of ICONICS' AnalytiX product, any product update(s), or import from external sources.

NOTE: The XML configuration files are available after Energy AnalytiX installation in this folder:

C:\Program Files\ICONICS\GENESIS64\WorkbenchSL\Meters

1. The Meter Folder will be selected from the Pick Meter Folder combo-box
2. The Meter Manufacturer will be selected from the Pick Manufacturer combo-box

Figure 2 - Pick manufacturer meter data

3. Clicking on the Green arrow button brings up the Load Meter Data window, as shown below:



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Figure 3 - Load Meter Data window

- Under the Meter Consumption Tags section the different Meter Types will need to be selected from the multiple checkboxes.
- Under the Property Tags section the different property tags will need to be selected from the multiple checkboxes

NOTE: The values on the right side are automatically populated with aliases

- Click OK to proceed
- In the meter, remove the 'New Meter Tag Name' tag using the Remove Tag button
- Assign the correct Meter Type and Utility Source
- Finish the meter configuration by clicking OK and Apply

How to Instantiate an Equipment Class

- Right-click on the Equipment Class and select Copy
- Under the Assets branch right-click on the desired asset and select 'Instantiate'
- The alias replace dialog will appear, any aliases will need to be updated with their correct values, as shown below.

Alias	Replace with
DeviceName	MyDevice
PortName	MyPort
ServerNode	localhost

Figure 4 - Fill aliases during instantiation

- Selecting Instantiate and Close will finish Instantiation.

Exporting Configurations for Modbus

- Under the Energy AnalytiX provider, the Device Configuration option will need to be selected, as shown below:

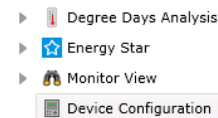


Figure 5 - Device Configuration

- In the Device Tree the newly created meter will need to be found and exported via the Export Meter Configuration button, as shown below:

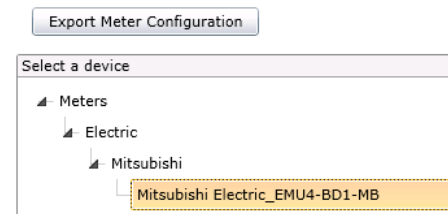


Figure 6 - Export Meter Configuration

- The Modbus CSV file exports will be created and the locations will be specified in the dialog, as shown below:

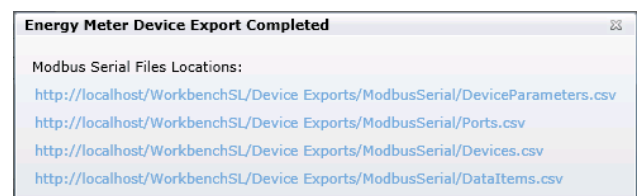


Figure 7 - Modbus configuration files

NOTE: By default, the export location will be:

C:\ProgramFiles\ICONICS\GENESIS64\WorkbenchSL\Device Exports



Importing the Modbus Configurations

1. Open Modbus OPC Server configurator from the Start Menu
2. Create a new configuration, with an empty Address Space
3. From File menu import the following files sequentially:
 - DeviceParameters.csv
 - Ports.csv
 - Devices.csv
 - DataItems.csv
4. The final configuration will appear similar to the below image:

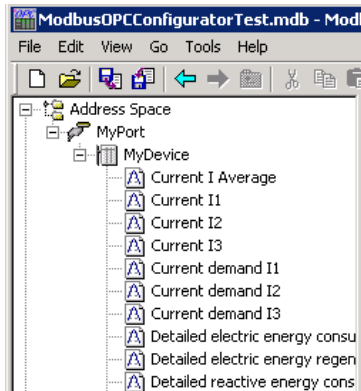


Figure 8 - Modbus configuration

Modbus treats each meter as a separate device and offers parameter optimization options during the meter exporting process.