



Energy AnalytiX Distributed Architecture



APPLICATION NOTE

October 2015

Description: Guide to designing distributed AssetWorX structure.
General Requirement: Knowledge of AssetWorX distributed architecture.

Introduction

In GENESIS64 version 10.8 ICONICS introduced a concept of distributed AssetWorX, which means that you can merge multiple independent AssetWorX trees into one global AssetWorX tree. It is now easy to provide a view of your multi-site company to central management while keeping the maintenance of the individual sites on local levels. For further information please see application note *AssetWorX – Scalable Distributed S95 Asset Architecture*.

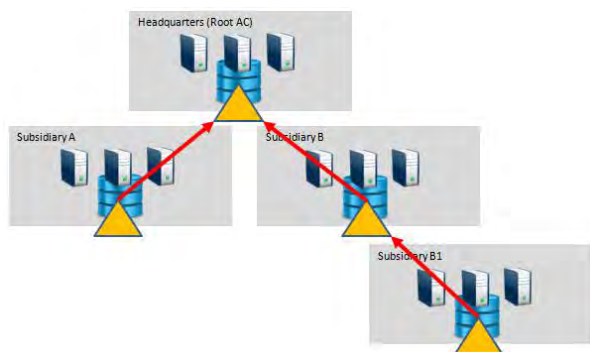


Figure 1 - Global AssetWorX Tree from Separate Machines

Energy AnalytiX may take advantage of the asset distribution to balance the calculation load among multiple sites. The user can define an aggregation node (HEADQUARTERS) to which each Energy AnalytiX dedicated node (SUBSIDIARY A, SUBSIDIARY B, etc.) will be publishing rollup calculations data. This data will be combined into overall energy data rollups on the aggregator node.

During runtime, the publishing node will check if data publishing is enabled and if a database connection exists to the aggregation node. During each calculation cycle, the publishing node will output all related standard rollup calculations of the linked assets to the aggregation node.

Configuring Publishing Node

The goal of this section will be to configure the SUBSIDIARY B machine to publish its energy data on HEADQUARTERS node.

1. Open Workbench on SUBSIDIARY B machine and go to Energy AnalytiX provider.

2. Expand General Options and go for Distributed Asset Catalog tab.
3. Enable Data Publishing.
4. Specify the HEADQUARTERS database server and database where the calculated data will be published.

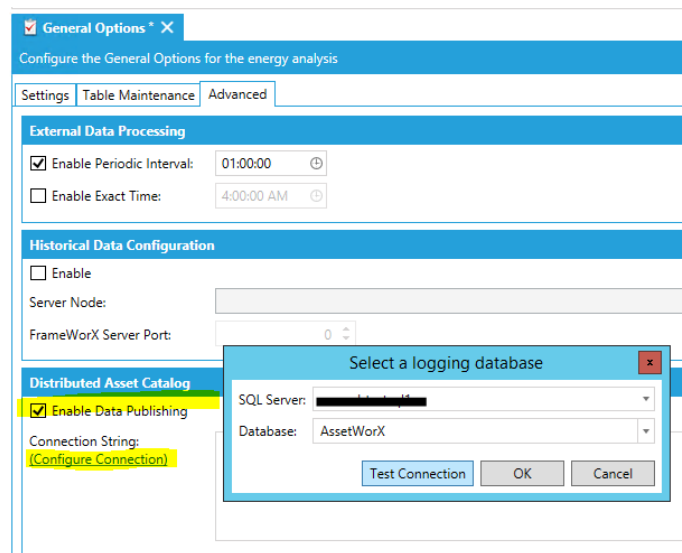


Figure 2 – General Options to Enable Data Publishing

5. You need to enable data publishing option on each equipment where Rollup calculations have been enabled. In order to do so, go to the AnalytiX provider, find your equipment and configure the Energy Asset like shown in the figure below.

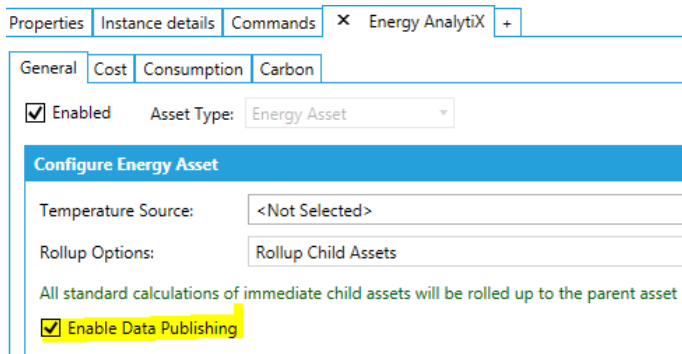


Figure 3 - Enable Data Publishing on your Equipment in AssetWorX

6. Export the Energy AnalytiX provider configuration. We will use this export file in the next section.



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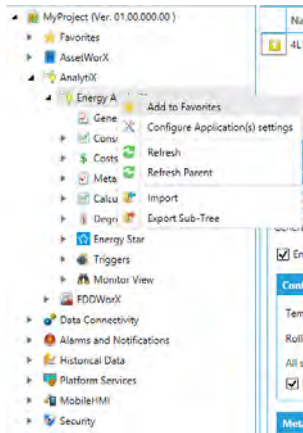


Figure 4 - Export Energy AnalytiX Configuration

Configuring Aggregation Node

The goal of this section will be to configure the HEADQUARTERS machine to aggregate energy data from subsidiaries.

1. Open Workbench on your HEADQUARTERS machine and import the Energy AnalytiX provider configuration you exported from your SUBSIDIARY B machine.
2. Add equipment and establish an external link as described in the application note *AssetWorX – Scalable Distributed S95 Asset Architecture* in order to expose your SUBSIDIARY B in the global AssetWorX.
3. Add Energy AnalytiX Extension using the + sign tab.
4. Enable the Energy AnalytiX Asset.

NOTE: Once the External Link option is selected, the Energy AnalytiX Asset configuration tabs will not allow any calculations, metadata, etc. to be defined. This “special” Equipment simply provides a link to the related Equipment from the AssetWorX on publishing node e.g. SUBSIDIARY B.