

CIM Adapter

For OSIsoft PI System™



OVERVIEW

SISCO's CIM Adapter for use with the PI System™ combines the power of OSIsoft's world-leading infrastructure for real-time performance management with the application integration and common information exchange model capabilities of the IEC CIM.

The SISCO CIM Adapter processes modeling information, such as a network connectivity model, and automatically configures the PI Asset Framework™ (PI AF) for those points that are being historized by the PI Server™. The SISCO CIM Adapter organizes the PI Tags within the context of models familiar to the user such as the IEC Common Information Model (CIM) per IEC 61970/61968 or a user-defined data model. The adapter can also be integrated with SISCO's Utility Integration Bus (UIB) to synchronize the PI AF models with changes made to the model in external systems.

The SISCO CIM Adapter provides a solution for electric utilities that enables them to leverage their existing power system models to better manage the complexity of their smart grid systems while minimizing manual reconfiguration and data handling.

FEATURES

- Works with customer defined models, models derived from applications, or industry standard models such as CIM, IEC 61850, ISA, etc.
- Imports XML model definitions and network connectivity information into PI AF
- Can auto-create PI Tag names based upon the model definitions
- Supports model synchronization between the PI System and the power system models in other systems to enable historization of these model changes within the PI System environment

BENEFITS

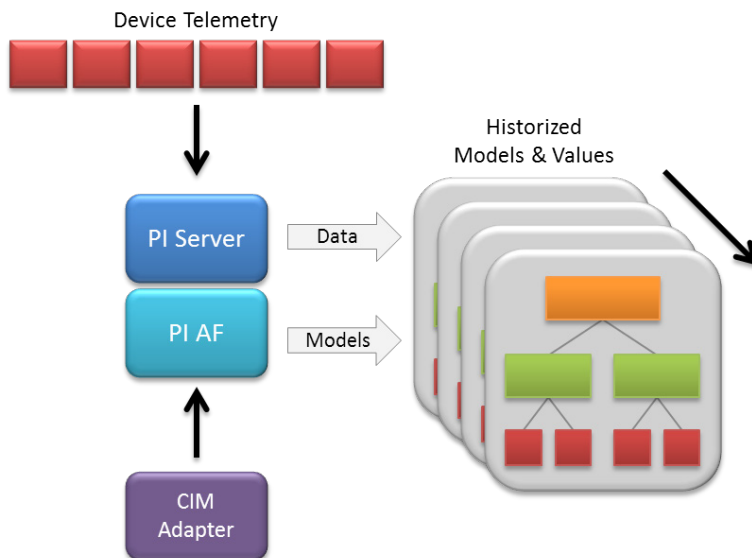
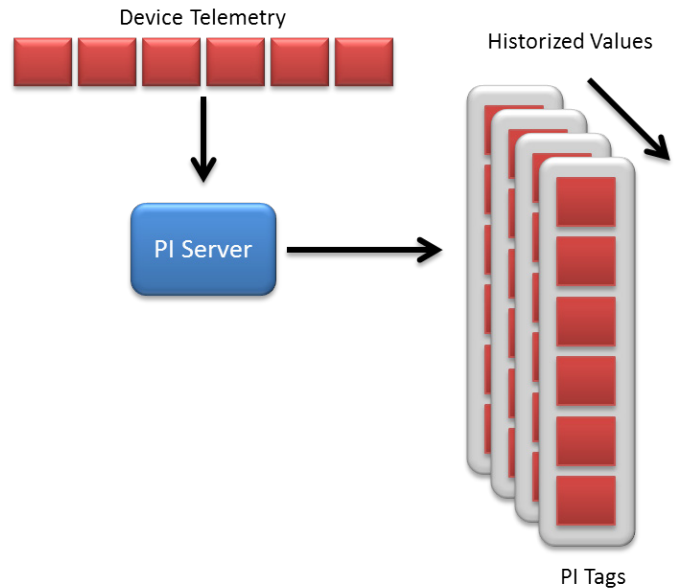
- View and search for PI Tags within the context of familiar power system models
- Facilitates the development of reusable analysis and display application for PI ProcessBook™ and PI WebParts™
- Ability to provide automatic configuration updates when changes are made to external models
- Supports a common integration framework that eliminates unwieldy point-to-point data transformations and integration links
- Leverages existing Enterprise Application Integration (EAI) and middleware products (such as IBM WebSphere) to provide maximum performance and flexibility for integration with other enterprise applications

HOW IT WORKS

SISCO's CIM Adapter consists of the adapter itself and an import tool. The software allows for model creation and maintenance in PI AF automatically enabling standardized or customer defined models to be used.

Model creation and maintenance is performed through the import of eXtensible Markup Language (XML), Resource Description Format (RDF) and Web Ontology Language (OWL) file formats, which have been standardized by the International Electro-technical Committee (IEC). These formats enable the schema/model definitions and object instance information to be exchanged.

Model synchronization and maintenance can be enabled through the use of SISCO's Utility Integration Bus (UIB). Using the UIB with SISCO's CIM Adapter allows changes made in an external model to be automatically delivered to PI AF and to other applications as well (e.g. network applications, GIS, EMS, and others). The model repository can contain model information relating to standard models (e.g. CIM, IEC, ISA, etc.), Customer defined models or models residing in other applications such as GIS, EMS, PSS/ODMS, CIMDE and other network modeling applications and tools.



THE RESULT

Users of PI AF, and other PI AF application tools, will have the ability to view the relationship between measurements and equipment based on the model.

The SISCO CIM Adapter creates and maintains the various relationships specified by the model definition. As a result, it is now possible for a PI AF application to locate a transformer that is contained within a substation without having to know the PI Tag names in advance.