LILAC
Energy Software Solutions

Fundamental Data Manager Solution for PointConnect Data

Thomson Reuters provides the PointConnect service, which provides a feed of fundamental data curves for energy market participants. The service is intentionally a "pure data" service, with the data being provided as a constantly updating set of consistent data files, along with a set of standardised metadata describing the nature and source of each curve.

The Fundamental Data Manager automates the process of polling for these data files, transferring those files, and populating a local database to serve as a data warehouse for all the received data. The PointConnect metadata can also be loaded, and augmented with additional data tags, allowing the user to decide how they want to view and categorise the information.

With this in place, a PointConnect customer can quickly and intuitively select the data they wish to view and manipulate, whether in a tool like Excel, with other visualisation or analysis tools, with data dashboards, or to feed a further downstream enterprise data repository.
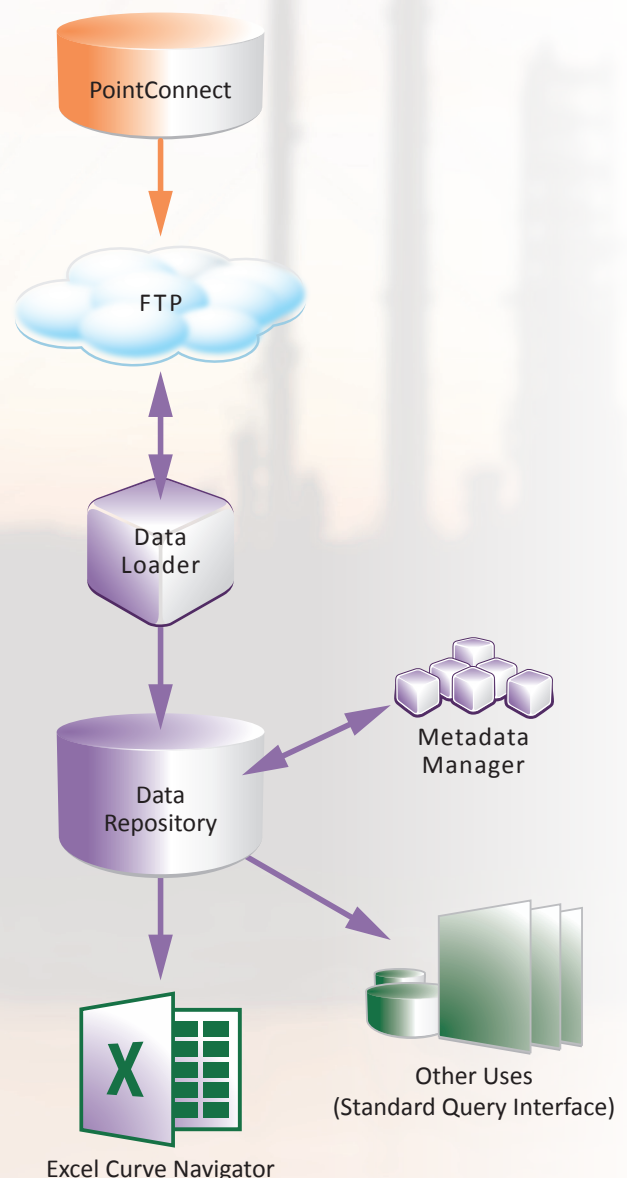
Solution Overview

The key functions of the system are to:

1. Retrieve updated curves automatically from PointConnect.

2. Store the retrieved data in the Data Repository such that there is a common published interface to retrieve that data from any other process, including Excel, downstream databases, analytic and visualisation tools, custom dashboards, etc.

3. Maintain client-specific and client-defined metadata and tags against each curve to categorise the data in any ways required by the client's business processes.

The Fundamental Data Manager solution is made of three key components, being:

1. The Data Loader, which retrieves updated curves automatically from PointConnect and loads them into the Data Repository database.

2. The Metadata Manager, which allows each subscribed curve to be labelled and categorised in whatever way suits the user's business processes.

3. The Data Repository. This is the database containing the complete history of all data loaded, for deep analysis and audit/traceability.

Also supplied is the Excel Curve Navigator, which allows immediate ad-hoc access to any and all data loaded.

PointConnect

FTP

Data Loader

Data Repository

Metadata Manager

Other Uses (Standard Query Interface)

Excel Curve Navigator

Key Functionality

The core functionality of the system can be summarised as follows:

Data Loader

The Data Loader's purpose is to receive the data files from PointConnect, read the contents and save the information in the Data Repository.

The Data Loader service runs in the background, and as new data files are made available it identifies the changes, downloads them, and adds data to the Data Repository. In the process, it validates the data structure and associates the new curves with the appropriate metadata. The progress and status of this loading process can be tracked in the Status Monitor at all times.

The Data Loader's Status Monitor provides a complete history of all data loaded

A complete history of all data loaded and changed is kept for diagnostic and audit purposes.

Metadata Manager

The Metadata Manager allows the loaded data to be identified and categorised in a powerful and flexible way.

Core standard metadata is provided by PointConnect with each data curve, allowing the data to be categorised using a number of standard attributes. The Metadata Manager allows this metadata to be directly imported from XML files available from PointConnect.

The Metadata Manager enables custom categorisations to enhance data visualisation and analysis.

While this core metadata is comprehensive, analysts will frequently want to categorise the loaded data curves in ways specific to their requirements and not always readily achievable using only this core metadata. For this reason, the Metadata Manager also allows additional custom attributes to be defined and these can then be used as criteria for searching for and filtering available curves, along with the core metadata.

Data Repository

The Data Repository is a scalable SQL Server database, which can hold all of the required Fundamental Data and Metadata, and the associated audit trail. Full query access to the Data Repository is given to customers via a set of supported SQL interfaces (the Standard Query Interface).

Excel Curve Navigator

The Excel Curve Navigator is a template spreadsheet which uses the Standard Query Interface exposed by the Fundamental Data Manager to allow ad-hoc selection and querying of any curves in the database, filtering by required criteria including customised metadata.

The Excel Curve Navigator allows ad-hoc selection and querying of any curves in the database.

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