Plantweb Optics Data Lake

A modern OT data connectivity, data management, and data repository solution built to accelerate your digital transformation programs. Inspired by IT design principles, Plantweb Optics Data Lake can integrate with anything, store everything, and scale-out easily. With Plantweb Optics Data Lake, you eliminate OT data silos, collect and contextualize structured and unstructured data, and easily integrate OT data with IT tools and cloud applications.
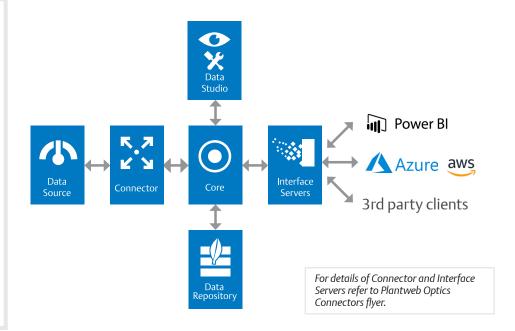
Plantweb Optics Data Lake Components

Data Source: A Data Source is connected to the Core through the Connector. It can be an OPC data source, a relational databases or other custom options.

Connector: Connects to different types of data sources and forwards the data to the central Core service.

Core: The Core is the central component of the system. It establishes connections to multiple Connector services to collect data from various different data sources. The Core processes the data, storing all information in the Data Repository.
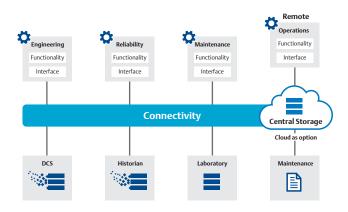
Data Repository: A data store using MongoDB, a free, open-source NoSQL database. MongoDB is infinitely scalable to deal with vast amounts of real-time data.

Interface Servers: A service that exposes data in the Plantweb Optics Data Lake according to the latest OPC and webAPI specifications.

For details of Connector and Interface Servers refer to Plantweb Optics Connectors flyer.
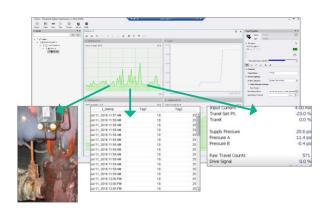
Connected OT Data Infrastructure

Eliminate your data silos and manage the system centrally.

Store Any Data Type

Time series, relational, pictures, documents, video and more.
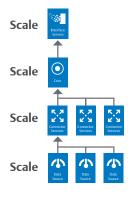
Contextualize Operational Data

Combine data from a variety of sources into logical groups or hierarchies such as ISA-95, I/O or physical structure, and multiple KPI/Reporting.

Scale Easily

Every component of the Plantweb Optics Data Lake can scale to support a range of design patterns from individual sites deployments to an entire enterprise solution.

Use IT Visualization Tools

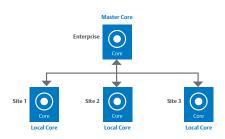Have the freedom to use modern IT visualization tools for beautiful user experiences.

Manage Easily

Centrally manage an enterprise system with access to create, deploy, and delete objects. Allocate resources to match business continuity needs.
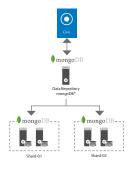

Security

Modern identity and access management (IAM) model fit for enterprise deployments.
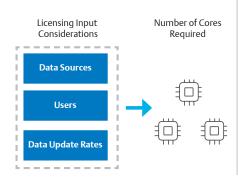

Modern Data Repository

Enterprise scalability with MongoDB based data repository. Scale horizontally with clusters and meet availablity needs with replica sets across your global data center infrastructure.

A New Licensing Approach

Plantweb Optics Data Lake scales based on logical CPU's used and not tags used. Pay for what you use not how much data you store.

Powerful Logic Engine

Create rules and policies with Lua scripts. Save data scientist time by doing data transformations in the data lake either at the Data Source or in the Core.

```
1  SimpleMathLib = {
2      Add = function(a,b)
3      return a+b
4      end,
5      Subtract =function(a,b)
6      return a-b
7      end
8  }
9  return SimpleMathLib
```

Deployment Flexibility

Deploy on-premises or in cloud infrastructure in minutes. Automate administration steps using full featured Command Line Interface (CLI) capabilities.

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