



EPSILON DIGITAL TWIN

DATA HISTORIAN, VISUALIZATION AND ANALYSIS

WHITE PAPER

INCREASE EFFICIENCY, GAIN INSIGHT



Why EPSILON?

Choosing a data historian is a big decision, as the right system deployed well will lead to large cost savings and surface multiple optimisation opportunities in your plant, while being easy to use for your employees. The EPSILON platform lets you monitor, analyze, and improve asset performance in near real-time, allowing you to optimize decision making. The key capabilities below make our system the best choice for your data historian deployment.



1

Collection

EPSILON collects data local to the source using industry standard formats like OPC UA/DA, SCADA system, SQL, CSV or through manual data entry. EPSILON's data historian system is capable of collecting up to 1 million data points per second across an unlimited number of tags.

4

Periodic Reporting

Plant data is no longer locked to only engineers. Democratise your data, allowing authorised members across your organisation to extract reports and gain deeper understanding.

2

Trend Analysis

Trend analysis comes as a built-in feature, rather than an additional module. The tool enables operators/technologists to discover trends, optimise the plant, and troubleshoot units in real time.

5

Evergreen and ever-improving

Subscription software is always up-to-date, ensuring you always have access to the latest and greatest

3

Anomaly Detection

The Anomaly Detection works in the background after initial setup, and employs smart alerts to avoid alarm fatigue and ensure operators do not ignore alerts and alarms.

6

Foundational AI Models

Employ AI from the ground up to analyse trends, gain understanding, and ask questions of your data. Increase the value of your data for everyone in the organisation. The EPSILON user can predict future batch runs, transitions, and equipment startups based on all available historical data

Executive Summary

In an era where industrial competitiveness is defined by data-driven decisions, our data historian platform emerges as a pivotal solution for plant managers. It captures comprehensive DCS data, providing a robust foundation for AI-enhanced analysis of operational trends, through a digital twin approach.

In today's dynamic industrial environment, organizations face increasing demands for efficiency, reliability, and regulatory compliance. The System addresses these challenges by providing a robust platform for acquiring, storing, visualizing, and analyzing industrial data. By harnessing the power of the System, organizations can unlock actionable insights, optimize processes, and gain a competitive edge in their respective markets.

Traditional approaches to industrial data management often involve fragmented systems, manual processes, and limited analytical capabilities. This leads to inefficiencies, delays in decision-making, and missed opportunities for performance improvement. Organizations require a unified solution that can seamlessly integrate disparate data sources, enable real-time monitoring, and empower advanced analytics to drive continuous improvement initiatives.

Value Creation

\$ 100,000++

The estimate is based on potential cost savings, including reducing manpower costs, avoiding lost time incidents/downtime, energy & production cost optimization, and other factors. Please reach out for a custom estimate.

Foundational System Architecture

Cloud-Native

Easily-scalable, easy-to-deploy

Digital Twin

A digital twin is a virtual representation of a physical object or system. It is created by collecting real-time data from sensors and other sources, which is then used to model and simulate the object or system in a digital environment. This allows for a deeper understanding of its behavior, performance, and maintenance needs.

Key Features & Benefits

1. Data Acquisition & Storage

The data historian platform captures and stores high-fidelity DCS data with unparalleled accuracy and security, as well as it stands out by offering real-time insights, scalability to grow with your operations, and a secure architecture designed to protect your most sensitive data.



2. Asset Performance Management

An asset performance management (APM) system monitors assets continuously and in real time to identify, diagnose, and prioritize upcoming equipment problems. In addition to reducing unscheduled downtime, preventing equipment failure, and reducing maintenance costs, APM allows organizations to increase asset utilization, prolong the life of equipment, and identify underperforming assets. Enhance profitability and performance with our in-house solution.

3. Security & Compliance

The platform is built with the highest standards of data security and complies with industry-leading regulations. It ensures the integrity and confidentiality of your data, safeguarding against cyber threats while maintaining compliance with global data protection laws. This commitment to security and compliance makes our platform not just a powerful operational asset but also a trustworthy guardian of your data.



System Architecture

