Brochure

Unlock Business Value from Industrial Data Across the Enterprise

AspenTech Inmation™

Unlock the Hidden Value of Your Industrial Data

Today's leading companies are making better, faster business decisions using data-driven information. How? By unlocking the hidden value of industrial data using technology from AspenTech. AspenTech Inmation connects people, machinery, plants, logistics and applications so that they can better communicate and collaborate using existing data.

To connect these different strands of information, a unified, flexible, high-performance system is needed to provide corporate-wide, real-time, information flow. AspenTech Inmation does all of this and more, securely streaming data and then contextualizing and transforming it for use from the plant floor to the executive suite.

AspenTech Inmation is a real-time, scalable solution with enterprise historian capabilities. It leverages heterogeneous data without disrupting production systems so users have access to actionable information for better business decisions.

Providing connectivity to operational data from multiple data sources, AspenTech Inmation enables decision-makers across the plant and around the world to have access to actionable information any time, any place and on any device they choose.

Connected Industrial Data Management without Vendor Lock-In

AspenTech Inmation offers real-time operating systems integration. As production data proliferates, seamless, real-time integration between the control systems, MES and corporate IT is necessary. AspenTech Inmation responds with an architecture designed for unlimited scalability. By offering more than just interfaces, functions and data handling, the solution enables you to leverage your existing technology investments while assuring that it they can respond to technological changes to future-proof investments.
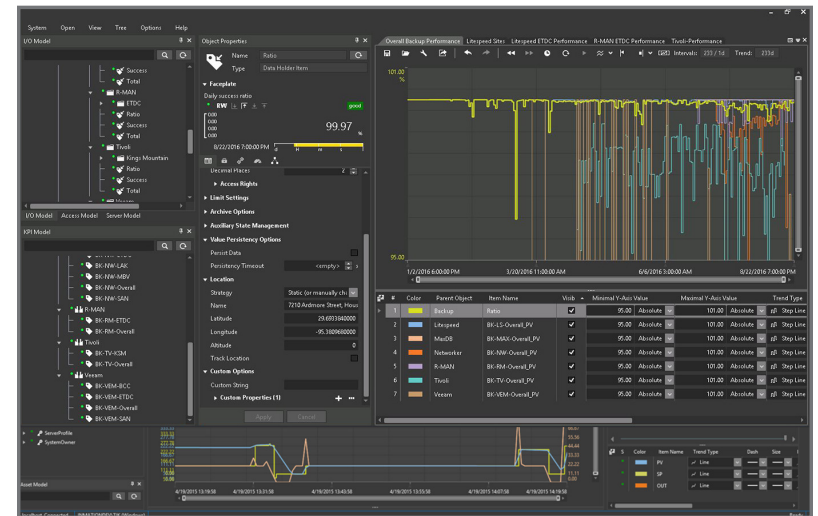

Figure 1. AspenTech Inmation DataStudio is designed to be a secure and singular interface to access your entire data source network.

What is AspenTech Inmation?

The heart of AspenTech Inmation is an engine that processes all of the data in the background in order to execute the necessary consolidation into actionable information. All operational components and IT systems can be connected, across the plant, enterprise network infrastructure and geographic locations.

With AspenTech Inmation, everything can be seen at a glance. You can review production and process data and key performance indicators (KPIs) in real-time via integrated performance dashboards.

AspenTech Inmation DataStudio, the main client application for AspenTech Inmation, is designed to be a secure interface that can quickly access your entire data source network—both real-time and historized data—with a suite of dynamic, effective visualization options. The intuitive interface and customizable toolset provides both casual and power users with the ability to create, configure and control their own workspace. Management of user profiles, security settings and access to shared workspaces can all be configured through AspenTech Inmation DataStudio, providing on-demand data to decision-makers.

Fully Integrated Monitoring

Server Interfaces for Enterprise Application Integration

Cloud Ingestion

OPC Classic

.Net API

OPC UA

Mongo DB JSON

Central System Management

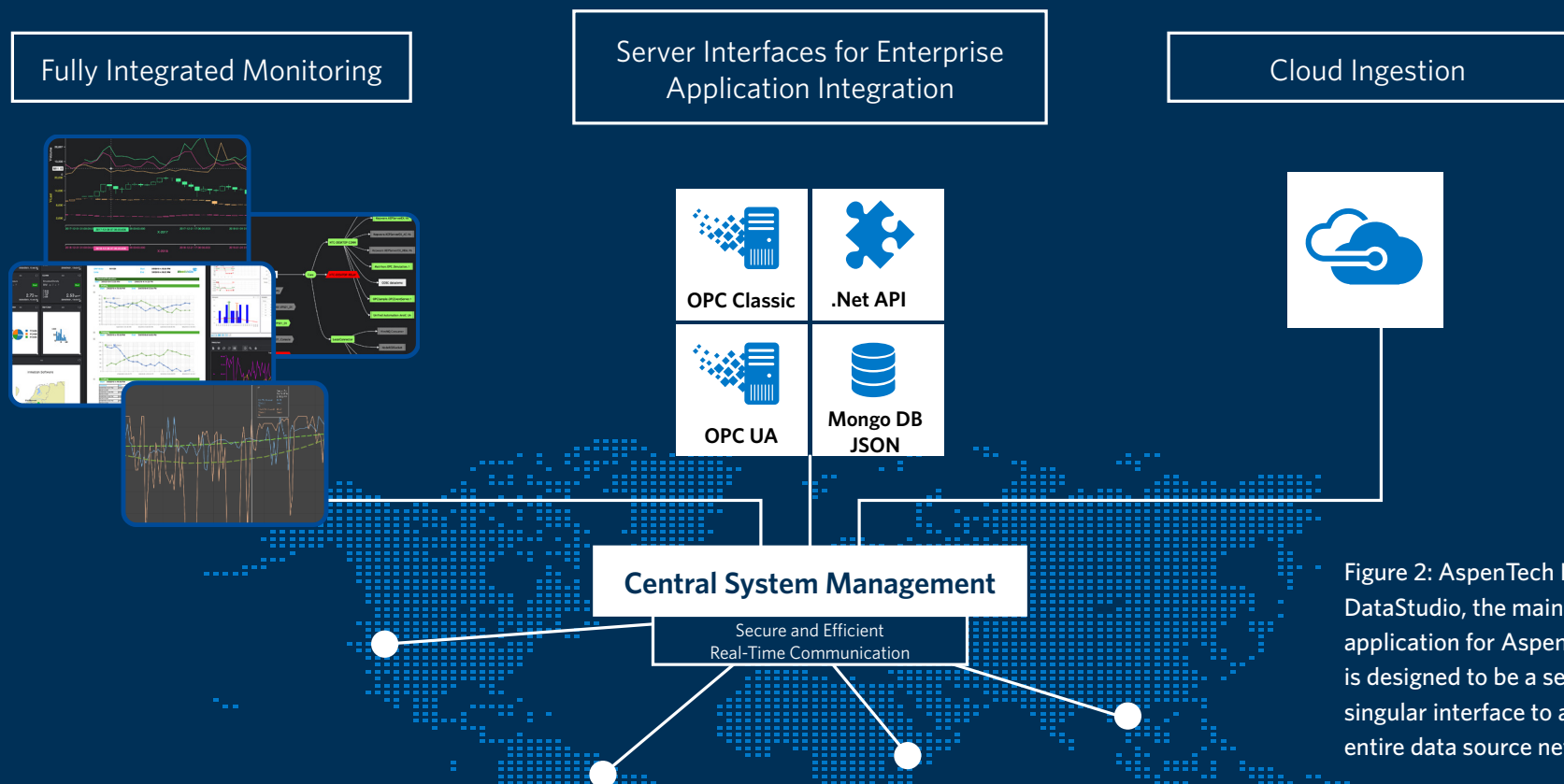Secure and Efficient Real-Time Communication

Figure 2: AspenTech Inmation DataStudio, the main client application for AspenTech Inmation, is designed to be a secure and singular interface to access your entire data source network.

Why AspenTech Inmation?

AspenTech Inmation supplies a true real-time data infrastructure to organizations of any size and operational complexity.

Industry, manufacturing, processing, supplying goods and services, can leverage existing data sources from any location to form a global data backbone for human and machine analysis, ultimately creating fast data systems and real-time business intelligence, analytics and artificial intelligence.

Figure 3. The AspenTech Inmation DataStudio Engineering Workbench.

Key Features

- Managed centrally for easy upgrades, support

- Supports cloud-based or mixed architectures

- Works in any cloud environment

- Offers open Interfaces: WebAPI, OPC-UA interfaces enable connectivity to visualization and analytics tools

- Provides embedded scripting for computing at the edge, data contextualization and more

- Avoids disruption of OT systems

- Created using a 'service-based' architecture with modern information technology

- Is vendor agnostic and works with DCS, PLC, historians, Lab systems, maintenance systems, and more

- Supports most data types/structures: Process data, alarms/events, files, documents, ODBC, XML, TCP streams, video/image, text, etc.

- Built for scalability from very small (a few CPU cores) to enterprise scale (1000s of CPU cores)

- Supports fast, high-resolution data (sub sub-millisecond, if required)

AspenTech Inmation Success Stories

AspenTech Inmation provides the technological backbone to support the smart manufacturing initiative for all of Boehringer Ingelheim's worldwide operations. AspenTech Inmation is guaranteed to enhance its product according to the challenging requirements of GxP in the regulated environment of pharmaceutical production.

AspenTech Inmation forms the "digital glue" required to integrate any equipment, automation system, MES and other operational data sources. It acts as a single, real-time data platform for the entire business unit. Bayer has seen a reduction of downtime, waste and other inefficiencies.

AspenTech Inmation supplies full data integration for SIG's next generation food packaging lines. Full standardization by using OPC UA across all equipment components, partially composed of third-party supplies. Creating a holistic packaging line address space in real-time, including full data historization for hundreds of thousands of items produced per day, different analytics and reporting.

AspenTech Inmation facilitates full integration of all of Philips' manufacturing equipment for shaver head production. The historian provides the highest performance and throughput capabilities to enable in-and-out of process analytics of high-volume discrete manufacturing data (involving sub-second and even sub-millisecond sensor data).
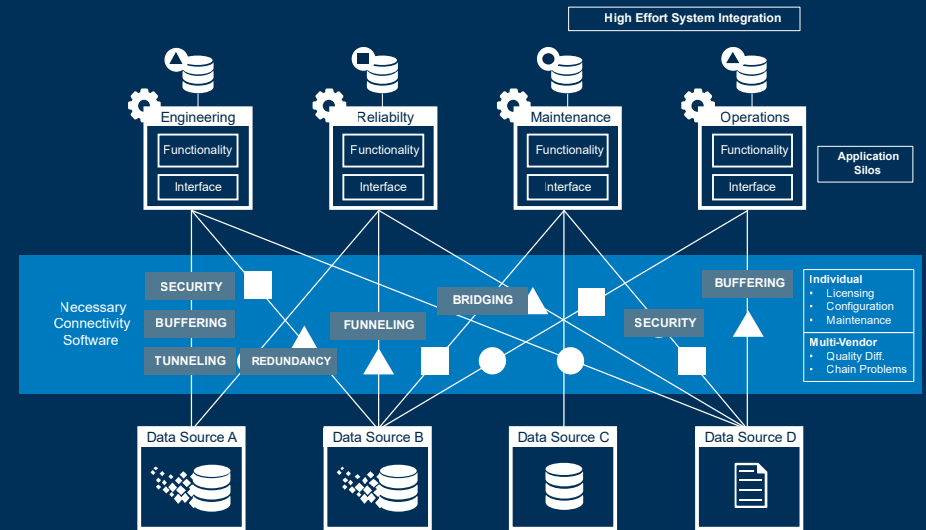
AspenTech Inmation securely streams real-time data from hundreds of connected interfaces into a centrally managed cluster. AspenTech Inmation's endpoints provide pre-cleaned and contextualized data to various analytics and visualization tools. The centralized approach empowers many value-added use cases, such as predictive maintenance, asset effectiveness, reliability center and augmented reality.

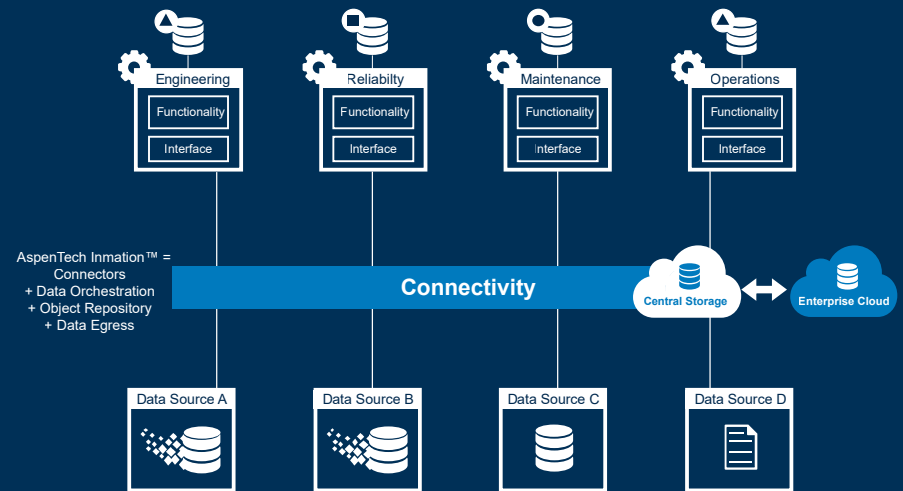# A Solution for the Digital Transformation of Industrial Organizations

AspenTech Inmation effectively abstracts or disconnects the data from the consuming applications via the object data store. This is a scalable data architecture for industrial organizations, eliminating much of the complexity associated with data connectivity. Where cloud integration is required, AspenTech Inmation addresses all OT data connectivity challenges, resulting in straightforward connectivity for operations.

With this architecture, the largest installed systems in the world are greater than 1000 computer cores and ingest millions of data streams spanning global enterprises. The BASF implementation spans 200 operations consolidating approximately 10 million independent data streams from industrial sites spanning four continents. Small systems can be comprised of fewer than half a dozen computer cores and ingest a few hundred data points from a single data source. Unlike traditional layered software architectures, the micro-service-based architecture of the platform makes the system very easy to scale.

AspenTech Inmation fits firmly between industrial OT and enterprise IT environments, eliminating the connectivity challenges industrial organizations have when scaling digital programs across the enterprise. Today, in most industrial organizations, there is a bottleneck in the data flow between the OT data systems and the enterprise cloud. AspenTech Inmation addresses these issues specifically and is differentiated in this manner.

Example Legacy OT Data Architecture

OT Data Connectivity Concept using AspenTech Inmation

Figure 4: Legacy OT data architecture vs data connectivity using AspenTech Inmation.

About AspenTech

Aspen Technology, Inc. (NASDAQ: AZPN) is a global software leader helping industries at the forefront of the world's dual challenge meet the increasing demand for resources from a rapidly growing population in a profitable and sustainable manner. AspenTech solutions address complex environments where it is critical to optimize the asset design, operation and maintenance lifecycle. Through our unique combination of deep domain expertise and innovation, customers in capital-intensive industries can run their assets safer, greener, longer and faster to improve their operational excellence.

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