Brochure

AspenTech Inmation™ Real World Use Cases

Introduction

In today's world, data is being generated from thousands of sources and applications across various industrial plants. Managing such heterogeneous data is becoming increasingly challenging, making it essential to simplify the data ingestion process, contextualize the data, ensure data integrity and provide easy data access with centralized management at scale.

To unlock the full potential of industrial data and derive value for the business, it is crucial to transform the data into a usable format that is both secure and scalable. AspenTech Inmation is software that makes that happen.

This brochure explains a few of the AspenTech Inmation use cases where data is used to:

- Reduce costs and increase efficiency within their operations
- Accelerate time to insights with analytics and artificial intelligence applications
- Break down silos and ensure collaboration from the plant floor to the boardroom

AspenTech Inmation

AspenTech Inmation is a centralized data management platform that enables businesses to collect, store and analyze data from various sources in real-time, and provides data access for data visualization, analytics and automation.

In today's industrial landscape, the amount of data generated is proliferating, making seamless integration between the plant floor and corporate IT essential. AspenTech Inmation addresses this challenge through its middleware architecture, which is designed for scalability.

By utilizing AspenTech Inmation, businesses can monitor production and process data in real-time using integrated performance dashboards.

AspenTech Inmation:

- Works with mixed architectures on premises or in the cloud
- Leverages Web API and OPC-UA interfaces that enable connectivity to visualization and analytics tools
- Uses a 'service-based' architecture on modern information technology
- Supports nearly all data types/structures: process data, alarms/events, files, documents, ODBC, XML, TCP streams, video/image and text
- Scales from a few CPU cores to an enterprise-wide deployment

By 2025, global data creation is projected to grow to more than 180 zettabytes.

Statista.com

Use Case: Creating a Centralized Industrial Data Lake for Advanced Analytics

Deploying a centralized repository for industrial data can be a challenging task. Data lakes can help address this challenge by allowing businesses to store structured and unstructured data at any scale, usually on the cloud. By leveraging data lakes, companies can ensure that the appropriate personnel have access to the relevant data at the right time while maintaining a secure environment for data usage.

AspenTech Inmation can gather data from a variety of sources and store it in a data lake without the need to structure the data beforehand. Additionally, AspenTech Inmation contextualizes the data, making it easily accessible for plant floor operators, data scientists and other consumers to integrate with other applications, perform analytics, build dashboards and use it for AI or machine learning projects.

Use Case: Data-Driven Predictive Maintenance

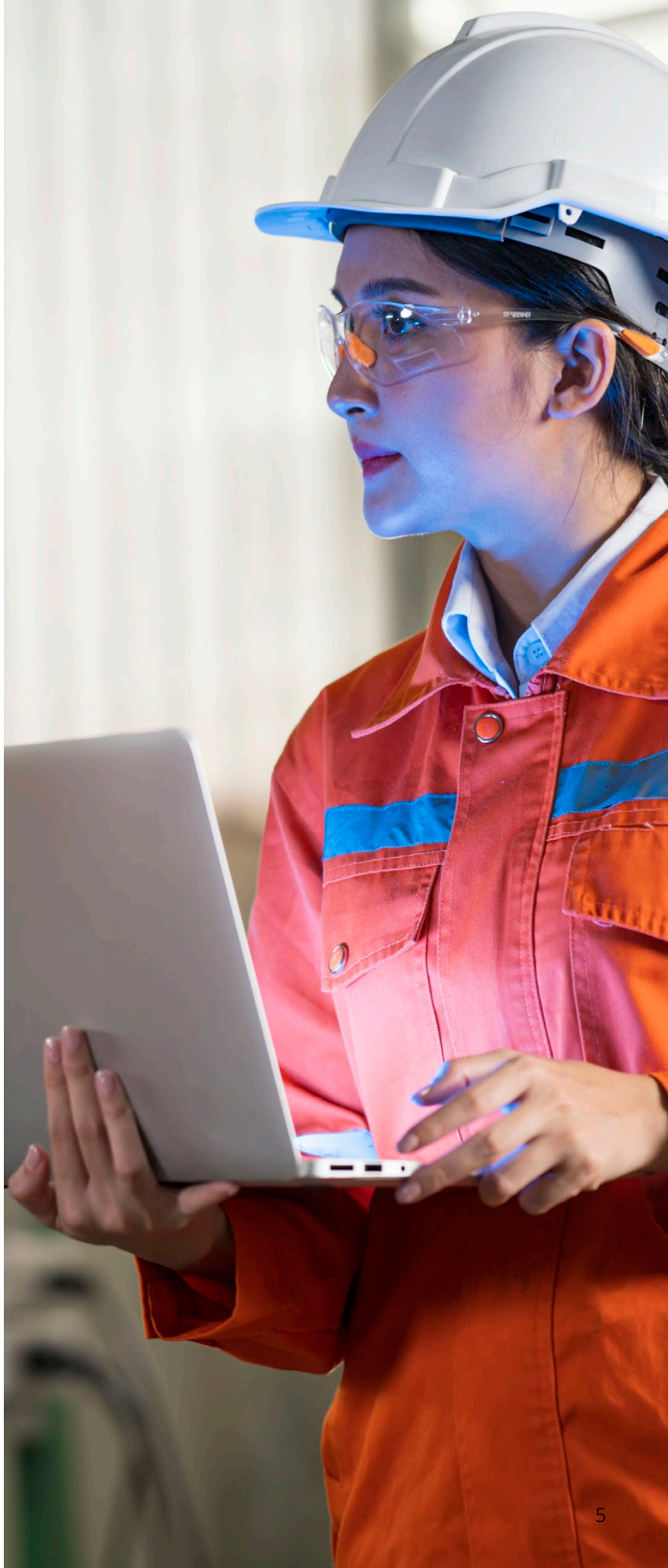
Having to repeatedly explain to management why machines on the plant floor keep breaking is not something anyone wants to deal with. Our solutions can help.

AspenTech Inmation supplies data to Aspen Mtell®, our industry-leading predictive maintenance solution, so that you can accurately predict time-to-failure by indicating precisely when a known failure will occur, how the failure will occur and what to do about it.

Having precise knowledge of the lead time to a failure (often through discussions between the operations, maintenance, technical and planning/scheduling departments), spanning multiple days or weeks, can assist you in determining the necessary actions to take. Taking prescriptive action enables effective remediation and timely decision-making to prevent damage, breakdowns, or problems and to solve them efficiently.

Data scientists, according to interviews and expert estimates, spend 50% to 80% of their time mired in the mundane labor of collecting and preparing unruly digital data, before it can be explored for useful nuggets.

"For Big-Data Scientists, 'Janitor Work' Is Key Hurdle to Insights,"
Steve Lohr, New York Times



Use Case: Improve Operations with Real-time Digital Twins

A digital twin is a virtual representation of a physical product, system, or process. It serves as an almost identical virtual counterpart that can be used for practical purposes, including simulation, integration, testing, monitoring, and maintenance

One of the main characteristics of the digital twin technology is its connectivity, and this is where AspenTech Inmation comes in. As a real-time data management platform, AspenTech Inmation is capable of aggregating, cleansing, and contextualizing data for use by digital twins.

Technologies such as AspenTech Inmation leverage digital twins and industrial data to enable companies to achieve sustainable smart manufacturing. Digital twins and virtual models have become essential tools for companies to enhance their performance and drive innovation.

By harnessing real-time data from the plant floor, the digital twin receives critical inputs. Employing predictive measures through AspenTech Inmation, digital twins can help prevent costly machine failures.

AspenTech Inmation is capable of aggregating, cleansing, and contextualizing data for use by digital twins.

Use Case: Gather Industrial Data for ESG Reporting

Today's companies are expected to provide an annual report on their environmental, social, and governance (ESG) performance in accordance with relevant laws and standards. These standards mandate the establishment of positive relationships with stakeholders such as the communities where companies operate, employees, customers, creditors, investors, suppliers and local government.

ESG reporting involves disclosing information regarding enterprise operations and risks in three areas: environmental stewardship, social responsibility and corporate governance. ESG reports play a crucial role in demonstrating whether a company's values align with today's environmental goals.

AspenTech Inmation makes gathering ESG data easier by handling industrial data collection, contextualization, security and data loss risks. With the data in place, meeting ESG reporting commitments becomes effortless, as the collected ESG data can be utilized to demonstrate compliance.

Companies are concerned about the accuracy and completeness of sustainability data. Executives list quality (35%) as the top data challenge, up from 25% in 2021. Another 25% cited access to data as the top challenge, a slight decrease from the 32% cited by a similar profile of respondents in 2021.

Deloitte: Sustainability Action Report

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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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