Connected Data for Faster Insights

Overview

Industrial organizations have long focused on improving asset utilization, increasing equipment availability, cutting O&M costs, optimizing capital expenditures and reducing HSE incidents. These business objectives still drive asset operator strategies today, and many organizations are turning to digital transformation—the adoption of new edge-to-cloud and analytical technologies—to achieve improved business outcomes.

In order for a digital transformation strategy to succeed, data analytics must be treated as an organizational capability and not simply as one-off use cases. Progressive organizations create this analytics capability by treating their data as a true asset, allowing data to answer questions in seconds. For decades, industrial data has been siloed across hundreds of systems, spreadsheets, and locations, all with different naming conventions. The time-series data itself is continuous and
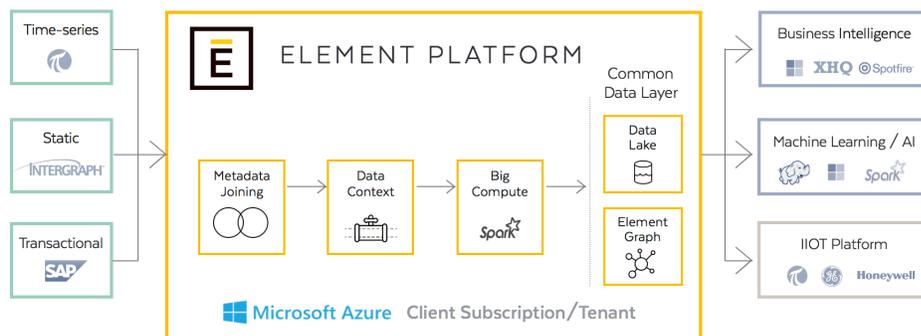
noisy, and was not designed for advanced analytical technologies. On top of that, analytical tools need dynamic models and data to function, while operational data and custom-built data models are inherently static.

With Element's software, organizations can achieve the real-time, real-world analytical context they require by aggregating, standardizing, and contextualizing data in a matter of days. Through this process, the data is continuously up to date to reflect the real world environment - ensuring that your data is ready for analytics at any time. In addition to innovative software, Element brings a team of big data and industrial veterans who understand your industry and processes, and value your unique expertise.

Interoperable with existing, trusted technologies such as the OSIsoft PI System and Microsoft Azure, Element gets you up and running in weeks, not years.

How Element Works

Made for industry and designed with operators in mind, Element handles real-time, high-volume industrial data while providing an easy-to-use interface for engineers, plant and line managers, and SMEs.

GET STARTED

Visit our website to sign-up for a demo and learn how Element can add value to your business.

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Turn your Data into a Dynamic Asset

As real-time data streams through your data historian and external data sources (e.g. work and asset management, laboratory, HazOps, P&ID), Element ensures that the data models you build are dynamically updated and ready to support analytics as a capability:

1. *Connect*
Create a complete representation of your assets and related equipment by joining and layering sensor data with relevant operational, maintenance, and/or financial data in one single source of reference. Combine IT and OT data through an easy to use drag and drop, visual programming interface. Metadata enhances sensor data with pertinent information such as functional location and region - making your data easier to organize and view.

2. *Prepare*
Build your asset-oriented data models by rapidly mapping sensors and the newly joined metadata in bulk to equipment, assets, and processes. Standardize sensor units of measurement and automatically normalize all associated sensors to a company-wide template. This consistent standard makes it easier to compare like assets from two different regions against one another and to perform data model assurance.

3. *Deliver*
Serve contextualized data to a data lake or to almost any existing analytics application or IIOT platform. Export data models as PI Asset Framework for the OSIsoft PI System, JSON for GE Predix, and others. Easily push contextualized operational data to BI and visualizations tools including PowerBI, Tableau, and PI Vision. Enable data science teams to use their tools of choice including AzureML, RStudio, and Jupyter Notebook.

4. *Trust*
Your digital transformation tools are only as good as the accuracy of the underlying data. Automatically and continuously audit data models as your equipment and assets change. Validate your time-series data itself for null values, stale values, and gaps to trigger notifications for data quality control. With continuously verified data and models, you can finally trust the output of any analysis.

5. *Analyze*
Use your data to drive decisions and actions throughout your business. Your data models enable rapid querying, data aggregation for accurate high-level views, benchmarking, and proper comparisons (e.g., sensor to sensor, site to site, event to event) to determine the root cause of issues and to identify best practices across sites.

Common Data Layer

Digital transformation requires all of your data, from historians to EAM to HazOps, to work together. To make this possible, industrial organizations are adopting data lake strategies. However, data lakes need context to know where to find the data. Element solves this challenge by feeding all your data into a common data lake, with all the interconnecting data relationships, through the Element Graph. Now you can easily access any and all operational data, turning your data into an asset and enabling analytics as a capability.

About Element Analytics, Inc.

Based in San Francisco, CA, Element is an industrial software company that makes data work for people, enabling analytics and proactively surfacing insight where it's needed most. The Element Platform rapidly transforms data into actionable insight, helping industrial organizations make the best-informed decisions for greater efficiency, sustainability, and profit.