

Data virtualization powers the data revolution at Festo



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Industry

Manufacturing Automation

Profile

As the world's leading supplier of automation technology and technical education, Festo deploys its products and services to help customers implement smart production capabilities while going digital. An independent, family owned company established in 1925 and based in Esslingen a.N., Germany, Festo has been a driving force in automation for over 60 years. With its unique range of offers, Festo has grown to become the world leader in technical education. 300,000 customers worldwide in factory and process automation put their trust in the company's pneumatic and electric drive solutions. In addition, Festo Didactic provides state-ofthe-art training solutions for industrial companies and educational institutions throughout the world.

Festo is dedicated to maximizing productivity and competitiveness for process manufacturing companies, paving the way for their digital transformation. Today, many aspects of Industry 4.0 are already a reality for Festo Group, as the company develops future-oriented products founded on innovative, energy-efficient technologies, intuitive human-machine collaboration, and advanced training.

Business Need

To continue the innovation that has always been at the forefront for Festo, the company needs to optimize operational efficiency, automate manufacturing processes, and deliver ondemand services to its business consumers. This includes finding smarter ways to streamline how the company aggregates and analyzes data. It also underscored the need for an agile solution that would better enable Festo to monetize its customer-facing data products.

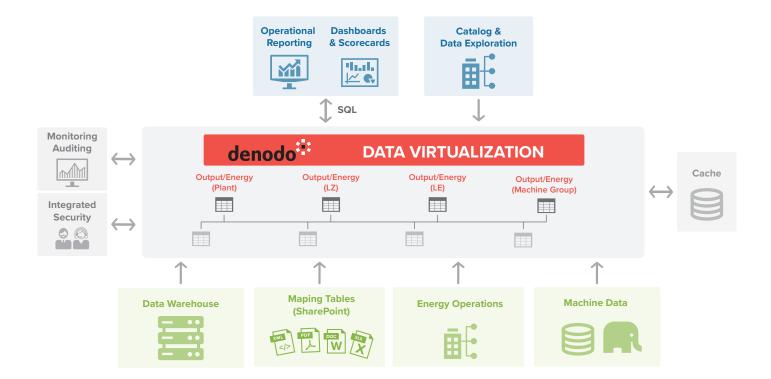
Festo also needed its business users to become self-sufficient with reporting and analysis and reduce their reliance on IT for preparing and surfacing the data they need. In addition, Festo's business teams had launched strategic projects to maximize energy efficiency, and they needed to be able to provide instant visibility on energy usage directly to the shop floor teams.

However, Festo was challenged in finding an agile and robust way to integrate the data from the existing silos, which included the data warehouse, machine data sources, and other sources, in a way that would reduce the reliance on IT by the business users while providing the quick turnaround and flexibility that the users were demanding.

The Solution

The Festo Big Data team developed a Big Data Analytics Framework to provide a data marketplace to better support the business. Using the Denodo Platform, this framework integrates data from numerous on-premises and cloud systems, including streaming data, machine data, and data-at-rest, and provides access to the integrated data in real time. Because the framework establishes a unified access layer, it provides consistent data access and governance across the different silos of data. As a result, business users now have easy access to all the data they need, when they need it.

To meet the demands of the business and deliver speed, flexibility, and agility, Festo implemented the Denodo Platform as a key component within the Big Data Analytics Framework. The logical layer delivered by the Denodo Platform provides virtual views that are tailored for business analysts, data scientists, and developers across multiple departments. "This is a win-win for us, as the business now has the flexibility they need, and they no longer have to rely on IT when they want to pull data," says Diethard Frank, IT Product Management Big Data at Festo. The views incorporate data from local sources to help stakeholders meet last-mile requirements. The Denodo Platform also gains efficiencies since it removes the need to replicate data – data remains in the source data stores, and it is accessed through business focused virtual views.



Benefits

Festo gained a wide range of benefits by implementing the Denodo Platform within the Big Data Analytics Framework. "Our business users now have the flexibility to drive and maintain their own dashboards, which is freeing up IT for other tasks" says Frank.

Festo also leveraged the Denodo Platform to launch a new system for bringing together diverse data sources such as data from SAP BW, energy operations data via web services, and machine data, to deliver dashboards and visualizations of energy KPl's that enable shop floor teams to gain instant visibility, engage in active monitoring, and ultimately drive energy saving efficiencies.

The Denodo Platform supports Festo's Big Data Analytics Framework by:

- · Delivering enhanced insight across the business without having to physically move data
- · Simplifying data consumption, as data virtualization is source agnostic, and provides a single endpoint for accessing all data
- · Quickly integrating new data sources and making them available to user communities in real time
- Facilitating smarter decision making via additional information-enrichment capabilities
- Increasing the speed and agility of both business and IT, as business users can now drive and maintain their own dashboards students, significantly increasing customer satisfaction.



Denodo is a leader in data management. The award-winning Denodo Platform is the leading data integration, management, and delivery platform using a logical approach to enable self-service BI, data science, hybrid/multi-cloud data integration, and enterprise data services. Realizing more than 400% ROI and millions of dollars in benefits, Denodo's customers across large enterprises and mid-market companies in 30+ industries have received payback in less than 6 months.







