

REDVIKING®

Continuous Stream of Digital Information from the Plant Floor for Real Time Management



Challenges

- ♠ Manufacturing systems and process equipment often work in silos, with no data aggregation or reporting to a cohesive, valuable report structure
- A Plant floor systems are typically isolated and unique, often built with differing controls, using multiple communication protocols
- ▲ IT, Engineering and Manufacturing reference different data sets, causing confusion
- ▲ Connecting of systems and collection of process data has traditional been viewed as obtainable only by super users in the facility, with highly specialized custom hardware and software
- ▲ Quality and warranty spills highlight and in bring into realization the challenge of linking information through the manufacturing process



Ideal Solution

- △ Data from all manufacturing processes is easily linked, searched. Information is readily available to all
- ▲ Data from external systems is quickly mapped for use on the factory floor. Results from manufacturing and test are instantly reportable
- A Common platform used to collect and report across departments, systems and varying equipment
- ▲ Scalable from individual cells to the entire enterprise

"We wanted to do things like **remote** diagnostics and **configuration** ... we selected **Argonaut**."

-Geoffrey Bennet, GKN



Desired Outcomes

- A No question on what, who or how something happened. There is a unified single source of truth
- ▲ Data visibility for Engineering, Operations and IT, executive access from shop floor to top floor
- ▲ Vertically integrated system empowers all layers of the organization to drive positive change in KPIs
- △ Containment from fallout is minimized when risk avoidance is optimized

"Realize **double-digit percentage** throughput improvement, reduced quality fallout & improved uptime."

- Remus Pop, Dana Light Vehicle Manufacturing





Digital Solutions for Connected Manufacturing

Argonaut® is a sophisticated solution for connecting, monitoring, and optimizing manufacturing data and information

End to End Solutions

Data from plant floor to the enterprise data lake; PLM information to your operators. Argonaut connects information

- △ Connect to and collect from virtually any plant floor device
- A Provide context and meaning to data for local reporting and long term storage and analysis
- A Real time KPIs enable decisions by Supervisors and Team Leads
- △ Operators are empowered with access to accurate work instruction for the unit in station

Global Scalability

Start with a Proof of Concept Scale across the Enterprise

- ♠ Deploy as a proof of concept, a stand alone line, or scaled across your entire organization
- Aggregate data across diverse manufacturing processes and divisions.
- △ Derive meaningful insights with correlated data sets
- Reduced complexity IT infrastructure costs and interface to modern business systems (ERP, WMS, Azure)

Application Capability

Varying manufacturing challenges met by a consistent approach

- ▲ Track and Trace: Part, product, and process traceability
- ▲ Factory Information System OEE: Process and Equipment Performance Management
- ♠ Dynamic Visual Work Instructions: Deliver standardized process instructions to operators
- ♠ Error or Mistake Proofing: Adding feedback from operator tools to Dynamic Instruction

"Industry 4.0 technology deployed at 28 sites globally, with real-time data driving double digit increases in quality and throughput, dashboards for senior level management, and data preparing us for machine learning and AI enablement of the future."

-Remus Pop Connected 14.0 and OT manager



With RedViking and Microsoft our customers launch Hybrid Cloud enabled solutions to combine the security and reliability of a classic on premise solution with the flexibility and power of the modern Azure cloud infrastructure to realize transformative value

Deploy Argonaut by RedViking on the Microsoft Databox Edge

Reliability, Performance and Security

- A Real-time automation feedback controls and machine data collection are completed on premise
- ♠ Protect your Operation department's need for 24/7 reliability with on premise performance and uptime
- ▲ Enable your IT and Engineering departments to configure and monitor your critical manufacturing infrastructure from the cloud



Deploy Argonaut Federation and Reporting service to your Azure tenant

First Class Data Accessibility

- △ Data is Federated to the Azure Cloud in order to provide reliable long-term storage and accessibility
- A Reports support correlation of data from plant-toplant
- ▲ Alerts, Notifications and Reports are accessible from anywhere you work
- ▲ Long term data fidelity is protected from plant interruptions



Utilize the power of Data Bricks and PowerBI backed by Azure Data Lake

Ensure your future success today

- △ Data is stored to economical Azure Data Lake Storage
- With Azure DataBricks, it easy to extract and transform data in the future to gain Powerful insights from your data to solve tomorrow's problems
- Access to data for custom reports and machine learning projects to improve future operations

