

Decision Integrity™

Understand operational technology (OT) data health and enrich data lakes with configuration and reference information

Challenge

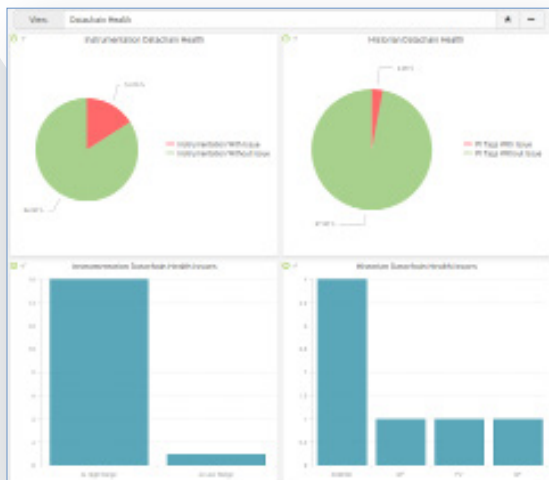
Industrial process data has been used for years to analyze safety, reliability, and performance. New and more real-time data from technologies such as the Industrial Internet of Things (IIoT) and 5G wireless communications promise to improve operational efficiency, innovation, market competitiveness, and profitability.

As a result, ensuring the health of OT data used in enterprise data lakes and decision support systems is more critical than ever. Knowing how production systems are configured and whether configurations have been modified, including by cyber attackers, is equally critical. Decisions made with potentially corrupted data can have serious business and safety impacts in the industrial sector.

Solution

PAS Decision Integrity enables trusted data for decision-making. Leveraging digital twins for over 120 industrial control systems created by PAS Automation Integrity™ and PAS PlantState Integrity™, the solution:

- Aggregates and organizes OT configuration data
- Maps OT data chains from the sensor to the cloud
- Enables engineers to identify configuration defects that may impact safety and production
- Provides an intuitive dashboard to help decision-makers understand OT data health when making decisions at the site and enterprise level
- Delivers OT edge analytics such as alarm and operator performance, excursions by unit, control loop performance, IPLs bypassed, frequent changes, and more
- Enables big data architects to enrich corporate digital transformation data lakes with OT configuration, reference, and helpful context



Key Benefits:

- Monitor and maintain OT data health
- Enrich predictive models, operator simulators, and process modeling simulators with OT configuration and reference information
- Gain operational insights from OT edge analytics
- Make more confident decisions that rely on OT data

Digital Twins

Digital Twins in the industrial context are virtual replicas of potential and actual physical assets, processes, systems, and devices. These digital representations update and change as their physical counterparts change and support a variety of use cases such as simulations to optimize operation and maintenance of assets and processes as well as business continuity planning.

Decision Integrity Capabilities

Configuration Data Collection: Aggregates and normalizes configuration data, such as tags and references from more than 120 different control systems and Windows devices

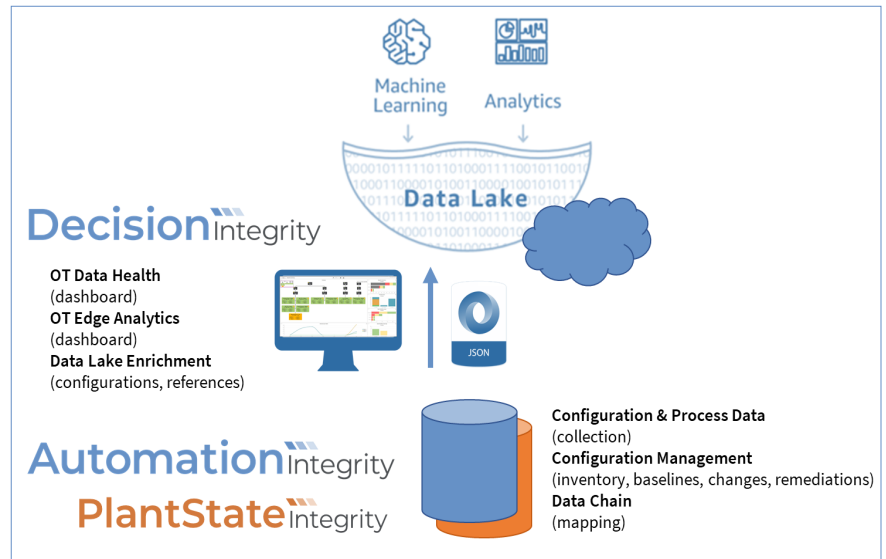
Configuration Management: Monitors for unauthorized changes to control strategies, device inventory, asset configuration, and logical and graphical files. Automates remediation actions via workflows based on asset value and risk, guiding operational responses. Establishes configuration baselines required for data health and operations change monitoring

Data Chain Mapping: Maps and visualizes complex data links and references within and data paths between control systems, applications, networks, and devices from sensors at Level 0 of the Purdue Model to cloud-based data lakes and decision support systems

OT Data Health: Provides an intuitive dashboard for analysts and decision-makers to understand the health of OT data, identifies configuration baselines deviations and whether changes were authorized to assess the reliability and resiliency of OT data used throughout the enterprise

OT Edge Analytics: Leverages data from PAS PlantState Integrity™ to provide actionable insights into operational and safety risk

Data Lake Enrichment: Enables data architects to populate OT configuration and reference data using the industry standard JSON (JavaScript Object Notation) data interchange format to give context to data lake content



About PAS

PAS, the OT Integrity company, delivers software solutions that prevent, detect, & remediate cyber threats; reduce process safety risks and optimize profitability; and enable trusted data for decision-making. PAS helps industrial organizations Ensure OT Integrity including 13 of the top 15 refining, 13 of the top 15 chemical, 4 of the top 5 pulp and paper, 3 of the top 5 mining, and 7 of the top 20 power generation companies.

For more information, visit www.pas.com.

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