Unlocking the power of AIOps for IIoT with AVEVA™ DataHub & AVEVA™ Advanced Analytics

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Using AVEVA™ DataHub & AVEVA Advanced Analytics, Accenture has built a platform for AIOps

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1. Why?

IIoT is just getting started...

...coordinates cyber-physical systems, over the Internet of Things, to enable an Internet of Services that assists people and machines in the execution of their tasks.


Machine Intelligence Leaders achieve:
- 10-15% efficiency improvement
- 8-14% cost reduction
- 10% reduction in environment impact
1. Why?

... Accenture is betting on it big...

Accenture Operations Twin (AOT)

What is it?

AOT combines software architecture and accelerators for the accelerated delivery of event-driven digital twin solutions to manufacturing clients.

- Creating a virtual representation of manufacturing or production processes
- Building a flexible industrial knowledge graph and enriching it with contextualized data from multiple sources
- Leveraging digital models to support decision making, optimize operations and deliver breakthrough customer service.

AOT includes a customizable set of reusable components for data integration of product, process, and systems data, contextualization, event-based alerting, and advanced analytics. AOT components & accelerators are configurable through low-code interfaces and can be customized and extended by Accenture teams and clients.

Enables teams to rapidly develop, test, pilot and launch new solutions and applications at scale focusing on areas like plant operations, maintenance, quality management, worker productivity & safety, sustainability, advanced process control etc.

Engineered by Industry X asset development team including innovators, designers, developers, architects, and engineers, and complemented by a global network of Industry X experts.

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... and AIOps is critical to providing an IIoT platform.

“AIOps combines big data and machine learning to automate IT operations processes, including event correlation, anomaly detection and causality determination.”

“Yet, there is no doubt: There is no future of IT operations that does not include AIOps.”

Gartner
2. What is it?

A replacement for the NOC and a revolution in IIoT operations.

Accenture created a solution on AVEVA DataHub to monitor the health of PI Systems cross-enterprise.

**Business Case:**

- Accenture is trusted by manufacturing companies across the globe to monitor and support their PI Systems.
- With the retirement of the OSIsoft NOC, Accenture’s clients rely on it more than ever to ensure that their PI Systems remain reliable, responsive, and resilient.
- Accenture’s global PI practice needed to standardize PI System monitoring tools on a scalable platform to meet the growing demand for PI support.

**Solution:**

- AVEVA Data Hub natively collects and contextualizes PI System monitoring data from individual PI Systems spread across the globe.
- Advanced Analytics implements contextualized smart monitoring of PI System data, quickly identifying deviations from healthy operations.

**Results:**

- A secure and standardized platform that allows Accenture to meet clients’ growing demand for PI System monitoring at scale.
- Innovative new analytic capabilities that allow more insight into a PI System’s performance than traditional solutions.
The AVEVA™ DataHub was an obvious choice for platform...
... paired with AVEVA™ Advanced Analytics

- Digital agents
- Digital twins
- Dashboard Monitors
- Intelligent Alerts
- Intelligent Actions
- Curated datasets
- Digital threads
- Model factories
- Data science templates
- Development APIs
- Office 365 Integration
Step 1: Reproduce monitoring from the NOC

**Monitoring**

Managed PI is able to monitor most PI System components. However, not all OSIsoft products are manageable by Managed PI. In general, if the product is not mentioned in this document it is not monitored. Specific products not monitored include but are not limited to:

- PI WebParts
- PI AxiomView
- PI Manual Logger
- PI ProcessBook
- PI Datalink
- PI SOC Client
- RTI Reports
- PI CIM Connectors
- PI Cloud Connect
- PI Insight
- PI Vision

In the following sections the monitoring capabilities and points that Managed PI monitors are discussed. The Managed PI program is constantly reviewing monitored points and alarms in response to changing needs of products and customers. If the monitoring capability is not listed in the following sections, it is not currently provided by Managed PI.
Step 1: Reproduce monitoring from the NOC
Step 2: Integrate with GenAI

I am located in Essen, Germany, I want to know what PI Servers are in my region.

Sure! Here’s a list of the PI Nodes for your region:

- PI Node Name
  - “PISM.Essen:ESSEN-MOD”
  - “PISM.Essen:ESSEN-MOD:Logical Disk C”
  - “PISM.Essen:ESSEN-MOD:Logical Disk F”
  - “PISM.Essen:ESSEN-MOD:NC”
  - “PISM.Essen:ESSEN-MOD:PI WebAPI”
  - “PISM.Essen:ESSEN-PI”
Step 2: Integrate with GenAI – Becky the PI Admin
Step 2: Integrate with GenAI – Sara the Plant Engineer
Step 3: Collaborate with early adopters

Roadmap

- **Q4: 2023**
  - Call for Co-Creators & Early Adopters

- **Q1: 2024**
  - Productionize Chatbot

- **Q2: 2024**
  - Cocreate advanced analytics

- **Q3: 2024**
  - Deploy to AVEVA™ DataHub Marketplace
Recommended Sessions

**AVEVA™ DataHub**

**Uniting AVEVA Data Hub and Advanced Analytics with IOTA View, for Proactive Well Maintenance**
Wednesday, October 25 @ 10:20am
Room 2004

**Get more out of your data with AVEVA Advanced Analytics**
Wednesday, October 25 @ 2:10pm
Room 2004

**Sharing data across Quebec Iron Ore’s IT and OT ecosystem with AVEVA’s cloud technologies**
Wednesday, October 25 @ 1:30pm
Room 2004

**Bringing industrial operations data into your analytics platform with AVEVA Data Hub Data Views**
Thursday, October 26 @ 10:45am
Room 2004

**Accenture**

**Vale: Implementing a global operations data infrastructure for transformation**
Wednesday, October 25 @ 2:50pm
Track – PI System User

**GenAI and PI: Supercharging the Operations Digital Twin**
Wednesday, October 25 @ 3:50pm
Track – Partner Solution Talks

**Rio Tinto and Accenture, Project Success Story, AVEVA Production Management and PI Historian: better together**
Thursday, October 26 @ 10:45am
Track – Process Industries