NOVEMBER 2022

Enhance your plant floor control with AVEVA[™] Operations Control

Edge

John Krajewski



© 2022 AVEVA Group plc and its subsidiaries. All rights reserved

AVEVA Operations Control

Evolving HMI/SCADA to Operations Control

Enterprise Edition	Long Term Focus (up to 1 Year) Enterprise View IT/OT Convergence	Command Center
Supervisory Edition	Medium Term Focus (up to 1 Week) Process View OT Convergence	Control Room
Edge Edition	Short Term Focus (up to 1 Shift) Work Cell View Control Convergence	Panel-based Operations

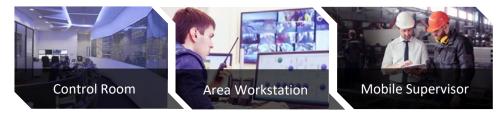
On Premise Components

Hybrid SaaS Industrial Operations

• Enterprise

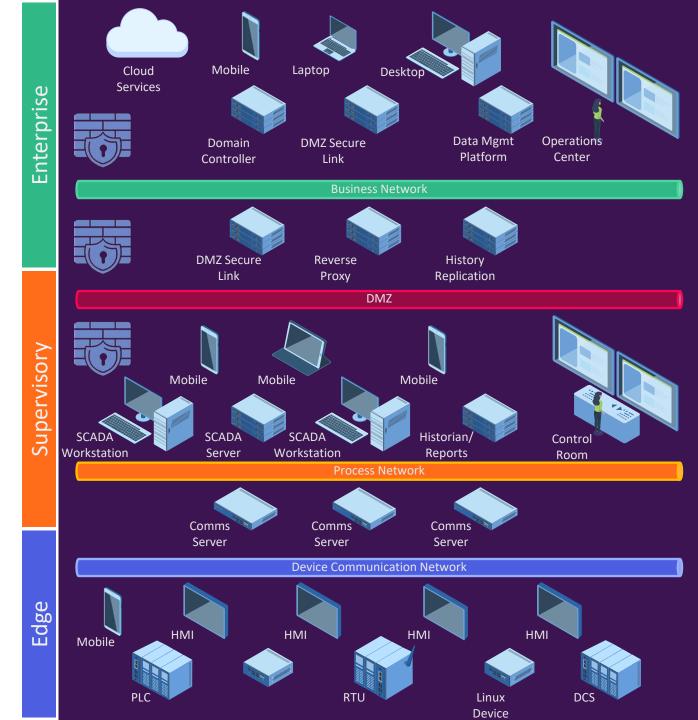


Supervisory



• Edge





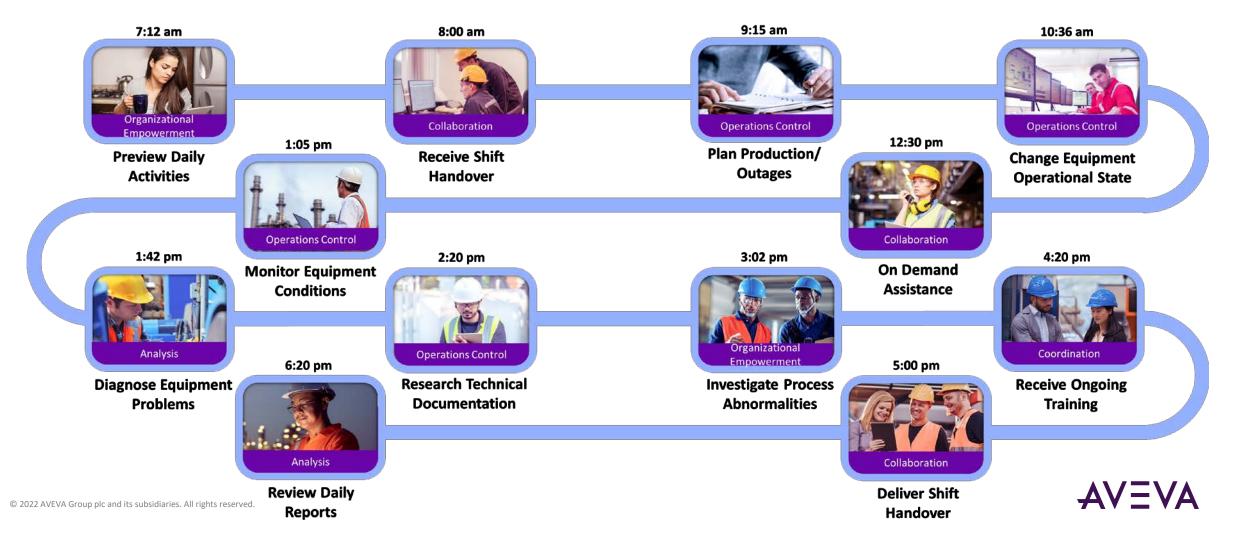
AVEVA Operations Control 2023

Now Available!



Operations – A Day in the Life

Enabled By AVEVA Operations Control – Hybrid SaaS Solution



Human Machine Interface

AVEVA InTouch AVEVA Edge

Key functions:

Legendary Ease of Use – New UI/UX!

InTouch is an open and extensible HMI with intuitive graphical animation and scripting capabilities that provide incredible power and flexibility for application designers.

Powerful Data Modeling – Unlimited Tags Added!

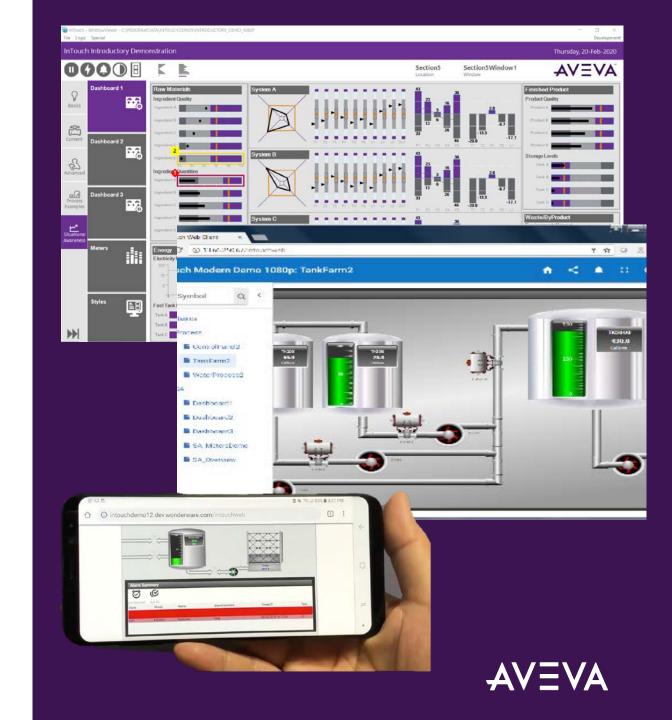
Design user-friendly HMIs and detect and troubleshoot problems in any process.

Process Visualization and Control – Workspaces!

Use InTouch to visualize and control vital plant processes in real time.

Situational Awareness

InTouch HMI brings unmatched clarity, consistency and meaning to integrated data.



File	View T	Fools Help							^
+	Delete	도 Duplicate	Dpen folder	G	B	🖯 DBLoad	🖞 Import	C	
New	🧨 Rename	Properties	Change thumbnail	WindowMaker	WindowViewer	😂 DBDump	Export	Refresh	
		Application		M	ain	Data	Import	View	
		and and							

InTouch OMI Web Client



- 8 ×

....

.....

hall 0 Β (!) What's New?

FIT123

POOF

42.00

Situational Awareness Overview

GPM

Which visualization style gives the best understanding how FIT123 is performing?

42.00

GPM

Best

FIT123

42.00

Level

Better

FIT123

Wednesday, 07-Sep-2022

AVEVA

24

Dashboard 1 ð Basics

G





E Advanced





Examples

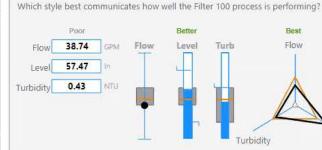
 \sim Situational



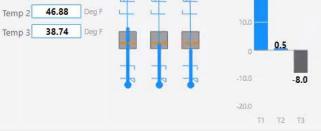
Styles

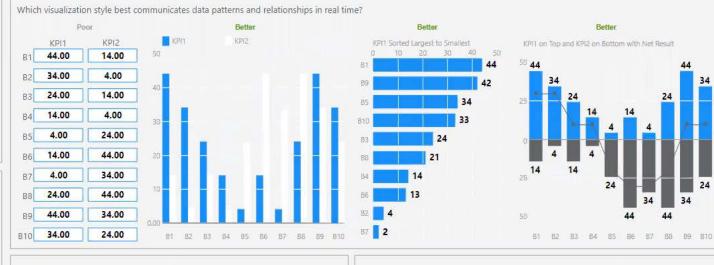






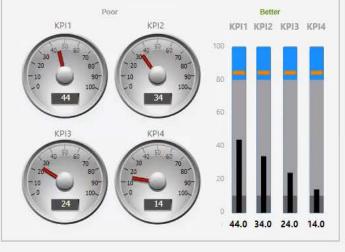
Which visualization style best communicates overall control loop performance? POOF Bette Best T2 T3 T1 63.99 Deg f Temp 1 20.018.5

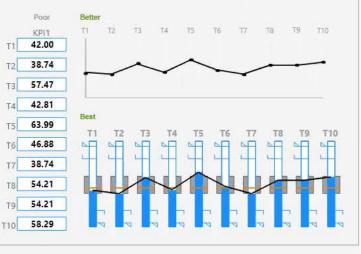




Which visualization style best allows analysis and comparison across multiple KPIs?

Which visualization style best allows analysis and comparison across multiple...



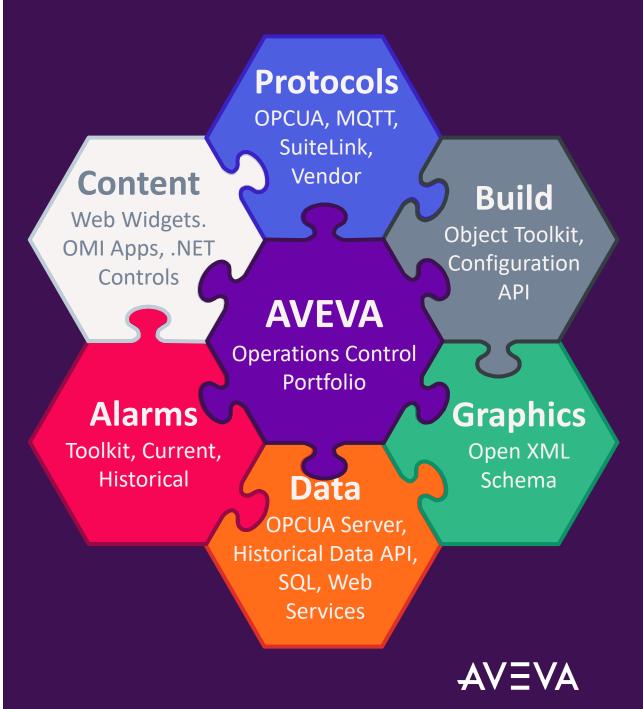


2

Communications

AVEVA Communications Drivers

- The AVEVA Operations Control Portfolio has a history of commitment to vendor protocols, open standards, and interoperability.
- OPC UA
 - Client Added Reverse Connect!
 - Server
- MQTT
 - Subscribe to Plant Floor Sparkplug
 - Publish to Broker Added SparkPlug!
- Telemetry Added IEC61850!



Collaboration/Coordination

AVEVA Teamwork

Key functions:

Digital Knowledge

Scan QR codes to quickly access a standardized library of instructions, videos and troubleshooting content.

Skills Management

Deliver and track training for new hires, upskilling and certifications with a review pane to view pending and completed training.

Communication – Added Teamwork Chat!

Connect with workers across shifts and facilities to solve problems. Share insights in a logbook and continuously grow the archive of knowledge.

Issues Management

Capture, track and resolve problems through call for help escalation and collaboration with subject matter experts.

l 🖸 🕼 (E Guides 5 Q Search guide 0 ÔM ALL. \boxtimes Preventice Maintenance How to adjust the seal of How to repair the bel 98 15 jun 2018 **Pauline Shaw** 0 uction Supervisor - Feb 10, 2020 at A mething must have been wrong with the program, possibly corrupted or wrong settings? I changed to a different program (Supermarket1), and that resolved the issue 0 Like - 1 Like Nathan Clark Coordinator - Feb 10, 2020 at 6:39 am looks like a broken part in the sensor to me - Like · O Like Lily Roy Mar 2, 2020 at 6:55 pm Wrapper A Not sure. Samuel Brown any thoughts? Q Chicago > Line 1 > Workstation 1 P Information 俞 Forms 3 > Ξ Work Instructions 14 (Ŧ) Troubleshoots 6 >





Line 1 has a red light that won't go away except when run a box through the line. Any advice?

Equipment 1 - Charleston



🖒 0 likes

Acme Chemical News * ... Q Quick Access Q Notifications E Factory Feed Structure



Reporting & Analysis

AVEVA Historian Client AVEVA Reports for Operation

Key functions:

Trending & Alarm Analysis – Added Adhoc Expressions!

Powerful data analytics, from simple statistical summaries to error correction and cycle time analysis.

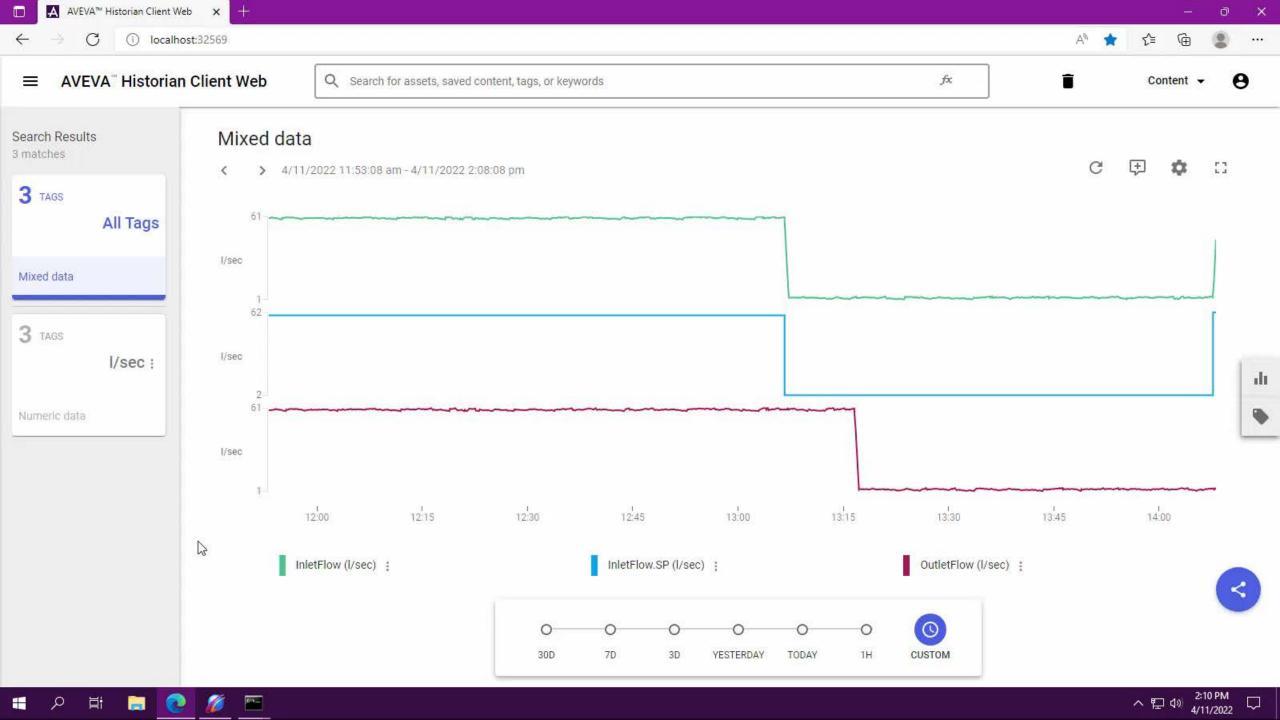
Industrial Reports

Produce clear, professionally rendered reports for communication and analysis of real-time and transactional events.

Live Web Dashboards

Share reports with anyone, anywhere, anytime, with an intuitive scheduling tool that simplifies distribution. Seamlessly integrate output from AVEVA Operations Control Edge, Supervisory, and Enterprise Editions.





Organizational Empowerment

AVEVA Insight

Key functions:

Actionable Insights – New UI Experience!

With the rise of remote working, your teams must be empowered to make agile decisions and transform operations with quick access to actionable information.

Increase collaboration

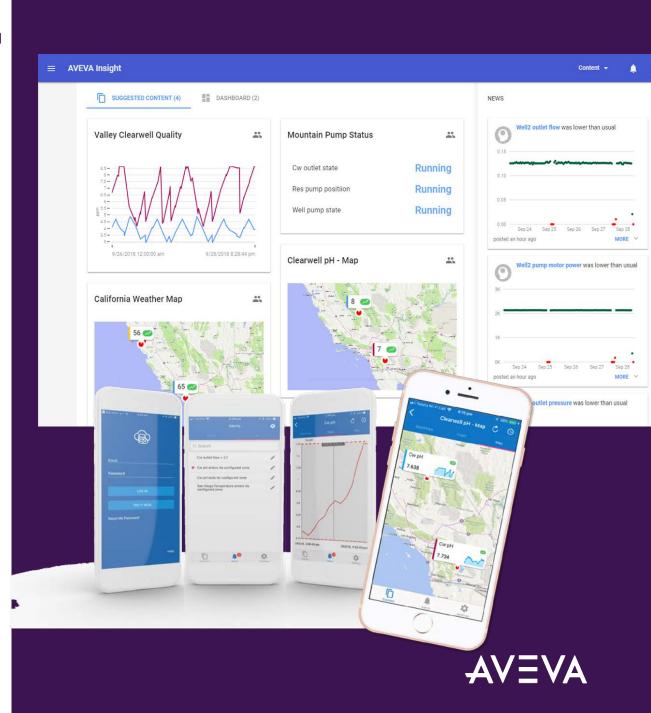
Empower the connected worker and break down silos with a single source of truth and customized alerts for better, faster decisions.

Unlock critical data

Access contextualized data from multiple sources while automatically identifying process anomalies in a single cloud environment to gain operational insights anywhere, any time.

Drive operational performance

Fully understand your operations with a digital twin that combines corporate and operational KPIs to discover efficiency gains.



New Experience UI?

Management and Monitoring

AVEVA Development Studio AVEVA System Monitor

Key functions:

Application Generation

Common development system across the entire Operations Control portfolio. Leverage Artificial intelligence to read data sources and generate the application based on customer standards.

Unified Standards and Asset Model

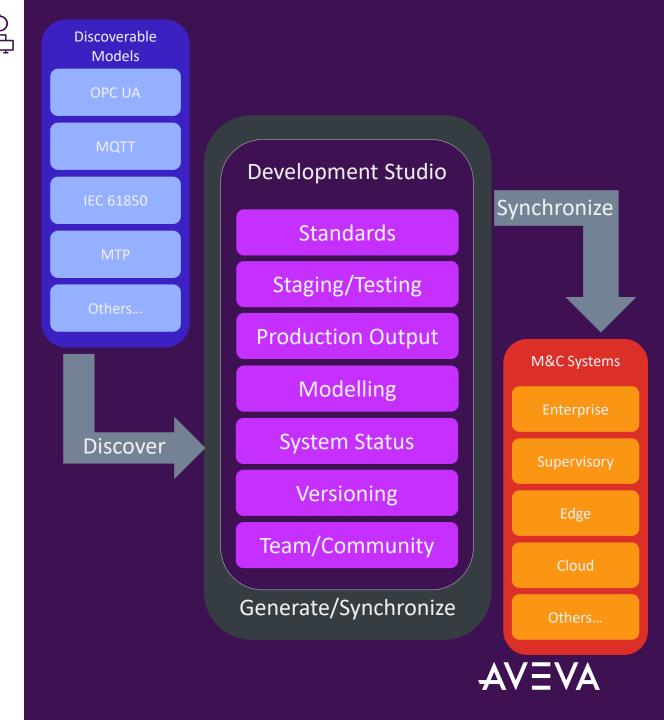
Build a single model from independent external sources and synchronize the asset model and application standards across all usages.

Lifecycle Management - New Entitlement Access!

Central mechanism for managing hybrid-cloud solution including application and software creation, delivery, and revisioning.

System and Infrastructure Monitoring

Centrally monitor all aspects of cloud, hardware and software used for the entire operational platform.



	AVEVA Development Studio	×	Ŧ
--	--------------------------	---	---

ð

ର

Θ

AVEVA[™] Development Studio

俞

Ð

Home Entitlements Subscription: Edgin AVEVA software available for download under your subscription. Supervisory Entitlements Manufacturing Execution Add-on AVEVA Edge **AVEVA Communication Drivers AVEVA Historian AVEVA InTouch HMI** £23 R (A) Universal connectivity suite of protocol drivers for Powerful small-footprint HMI/SCADA/IIoT software for High-performance process historian that ensures The worlds most popular, award-winning HMI software telemetry, supervisory and IIoT applications. Linux, Embedded and Windows Operating System. secure and open access to process, alarm, and event that empowers customers to achieve their quest for data. operational excellence. Learn more Downloads Learn more Downloads Learn more Downloads Learn more Downloads **AVEVA Insight AVEVA System Monitor AVEVA Reports for Operations AVEVA Teamwork Q** ∜ຕິບໍ \$ Self-service cloud-based analytics engine that User-friendly reporting solution for Industrial Real-time management utility that monitors and Cloud application for digital collaboration, issue transforms data into asset and operations insights. Automation that makes creating and distributing notifies you about the system health of your software. resolution, work instructions, and skills management. reports a simple task. Learn more Downloads Learn more Downloads Learn more Learn more

<

AVEVA

AVEVA Operations Control

User-centric software subscription for industrial operations, from edge to enterprise.

13

•••

لت الم الم

<u>ÔÔÔ</u>

Operational visibility

Gain a clear perspective into operations relative to the user's role through superior visualization applications.

Data analysis

Drill-down through information layers and leverage tools that allow users to examine data in detail.

Digital thread

Ensure everyone can interpret the same outcomes and remove the burden of recreating data sets and insights.

Collaboration

Bring teams together and promote operational continuity through messages, chat and calls for help.

Coordination & Learning

Develop skillsets and retain knowledge digitally to reduce onboarding and time away from operations.

Vendor agnostic

Software purpose-built for industry and leveraging a wider set of AVEVA and 3rd party devices and applications.

Learn more at aveva.com/align-your-teams

Questions?

Please wait for the microphone. State your name and company.



Please remember to...

Navigate to this session in the mobile app to complete the survey.

Visit the Expo!

Sessions:

- Getting the most out of the AVEVA Operations Control common components
- Deep dive into latest in AVEVA Operations Control Edge including AVEVA InTouch HMI

Thank you!

This presentation may include predictions, estimates, intentions, beliefs and other statements that are or may be construed as being forward-looking. While these forward-looking statements represent our current judgment on what the future holds, they are subject to risks and uncertainties that could result in actual outcomes differing materially from those projected in these statements. No statement contained herein constitutes a commitment by AVEVA to perform any particular action or to deliver any particular product or product features. Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect our opinions only as of the date of this presentation.

The Company shall not be obliged to disclose any revision to these forward-looking statements to reflect events or circumstances occurring after the date on which they are made or to reflect the occurrence of future events.



in linkedin.com/company/aveva

@avevagroup

ABOUT AVEVA

AVEVA is a global leader in industrial software, sparking ingenuity to drive responsible use of the world's resources. The company's secure industrial cloud platform and applications enable businesses to harness the power of their information and improve collaboration with customers, suppliers and partners.

Over 20,000 enterprises in over 100 countries rely on AVEVA to help them deliver life's essentials: safe and reliable energy, food, medicines, infrastructure and more. By connecting people with trusted information and AI-enriched insights, AVEVA enables teams to engineer efficiently and optimize operations, driving growth and sustainability.

Named as one of the world's most innovative companies, AVEVA supports customers with open solutions and the expertise of more than 6,400 employees, 5,000 partners and 5,700 certified developers. With operations around the globe, we are headquartered in Cambridge, UK and listed on the London Stock Exchange's FTSE 100.

Learn more at <u>www.aveva.com</u>