DATASHEET

AVEVA™ Plant SCADA

formerly Citect SCADA

Flexible, high-performance supervisory control and data acquisition (SCADA) software for plant personnel. Superior operational context and built-in functionalities consolidate, simplify, and optimize control. Operators can streamline their operations for efficiency, reliability, and safety.

Empowering operators on the plant floor

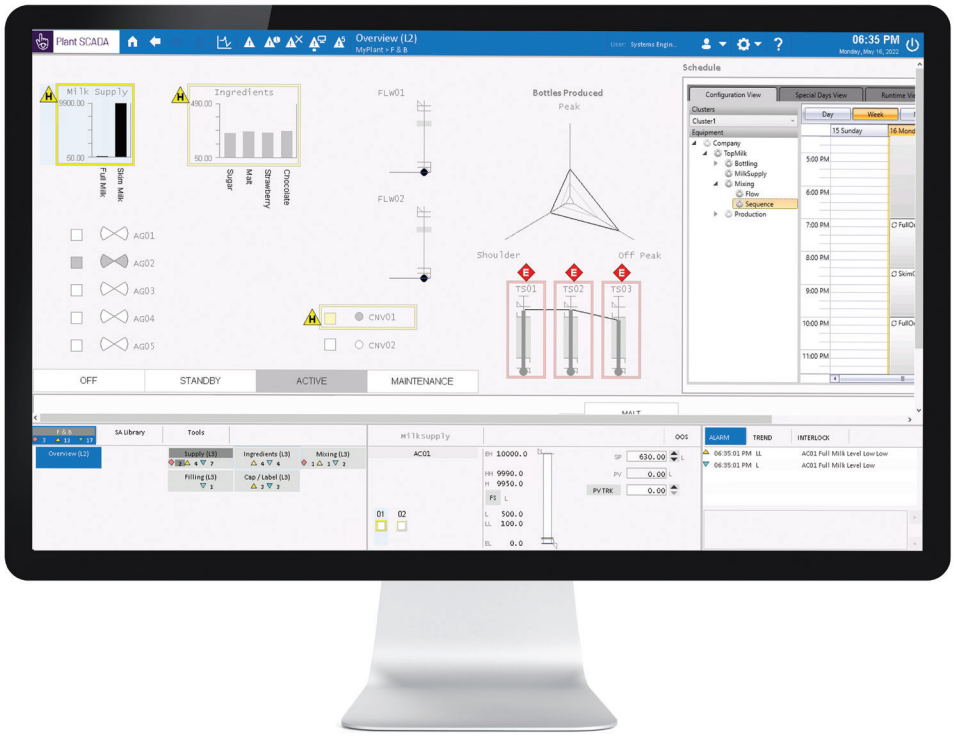
With intuitive configuration tools and powerful engineering features, AVEVA Plant SCADA helps consolidate and streamline control from an array of data sources. A visually informative supervisory application keeps operators focused, reducing human error and revealing opportunities to improve performance.

AVEVA Plant SCADA gives teams a holistic view of operations so they can both optimize the now and also design and accelerate operations control for the future.

Seamlessly weave visualization, alarming, trends, interlocks, and control together for superior operational context. With improved supervisory control and more effective mobility and integrations, you can use process data to increase productivity and support digital transformations.

At a glance

- Improve production efficiency, help operators make timely decisions and reduce downtime.
- Give operators better awareness with navigation zone and alarm indicators so they can quickly diagnose process anomalies.
- Follow the best industry practices for abnormal situation management (ASM).
- Simplify engineering with a host of contextual improvements that enhance project design and management, reducing total cost of ownership.
- Bring mobility to the plant floor with browser-based visualizations.
- Extend operational value using native integration with the AVEVA industrial software portfolio.



Increase operator awareness

AVEVA Plant SCADA helps reduce the noise of information overload by providing context-aware supervisory applications that guide users to take immediate action. New and experienced operators alike benefit from this guidance as well as AVEVA Plant SCADA's consistent response path across departments and operational areas.

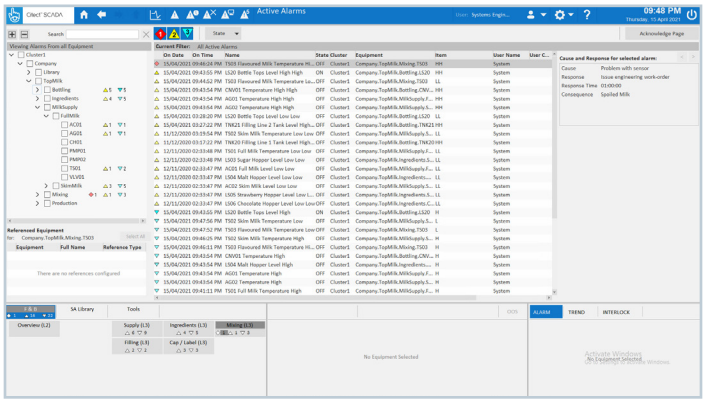
Situational awareness techniques like gray-scale coloring and simplistic animation reduce complexity and improve reaction times for all users. Intuitive interface design options like menu-driven navigation let you select how to highlight the number and severity of alarms. Equipment hierarchies link interface components that align to the actual process flow, so you can easily use drill-down and drill-up discovery.

The combination of real-time data, alarm details, historical trending, and associated information in a single interface minimizes the risk of incorrect decisions and leads to quicker resolution of issues.

Advanced alarm management

Effectively implementing alarming is crucial to ensure that plant personnel do not miss critically important events. AVEVA Plant SCADA employs a sophisticated approach to alarm management that utilizes shapes, colors, and numbers to quickly convey alarm status. It applies this style standard across an application's components, and can also configure borders, textures and visibility constraints around alarming objects.

Beyond styling, AVEVA Plant SCADA can configure acknowledgment, cause, and responses, filter and sorting options, reason statements, and alarm shelving. This flexibility gives you a solid base from which to create powerful operations control applications for monitoring any industrial process.



Simplified engineering

AVEVA Plant SCADA makes it simple to engineer an application that perfectly meets your needs. Its wide and powerful capabilities have been refined over the years to fulfill the demands of industrial operations all over the world.

Equipment-based tag referencing

Equipment structures create logical groupings that let you organize your project hierarchically. For example, if you represent a pump in your project as a piece of equipment, it will bring together the tags, events, alarms, permissions, communications, scheduling and scripting associated with the pump. You can associate the pump with a particular geographical area or include it as part of a functional process.

Alarm management

The instant visual alarm summary immediately focuses on abnormal situations. It shows the highest priority alarm for a piece of equipment. Alarm indicators quickly draw operators' attention and help locate both the source of anomalies and their severity. Define up to eight causes, responses, and consequences for alarms so operators get the information they need to deal with abnormal situations.

Scheduler tool

The scheduler is a runtime tool that automates your SCADA system by letting you view and manage schedule entries for a selected piece of equipment. The equipment tree displays your system's equipment hierarchy while the calendar displays your schedule entries.

Connectivity library

The library supports communication with over 150 native protocol drivers that you can configure with different parameters. It connects a vast selection of production devices across many communication types, including OPC UA, BACNET, IEC61850, MODBUS, DNP3, IEC60870.

Centralized client-server architecture

AVEVA Plant SCADA can handle any unique operating environment with a wide array of architecture capabilities, including clustering. Redundancy and separated processing of tasks give it high flexibility. Secure, centralized deployment makes server management simple. It supports controlled transfer of project changes to servers and clients as well as delta-only deployment.

Comprehensive programming language

Cicode is a powerful and easy-to-use scripting language praised for its extraordinary flexibility, agility and performance. Unique to AVEVA Plant SCADA, Cicode is a programming language with over 1,000 built-in functions purposely written for industrial environments.

Multi-language support

AVEVA Plant SCADA supports Chinese, English, French, German, Italian, Japanese, Korean, Portuguese, Russian and Spanish.

Operational insights: Process analyst and trends

With the process analyst, operators can compare and analyze trend and/or alarm tag data (both real-time and historical)—all during runtime through their existing AVEVA Plant SCADA server architecture.

Deep integration with Schneider Electric

AVEVA Plant SCADA offers native integration with Schneider Electric software and hardware solutions, including PLCs, PACs, power and energy meters, and EcoStruxure Control Expert (Unity Pro).

Flexibly deploy anywhere

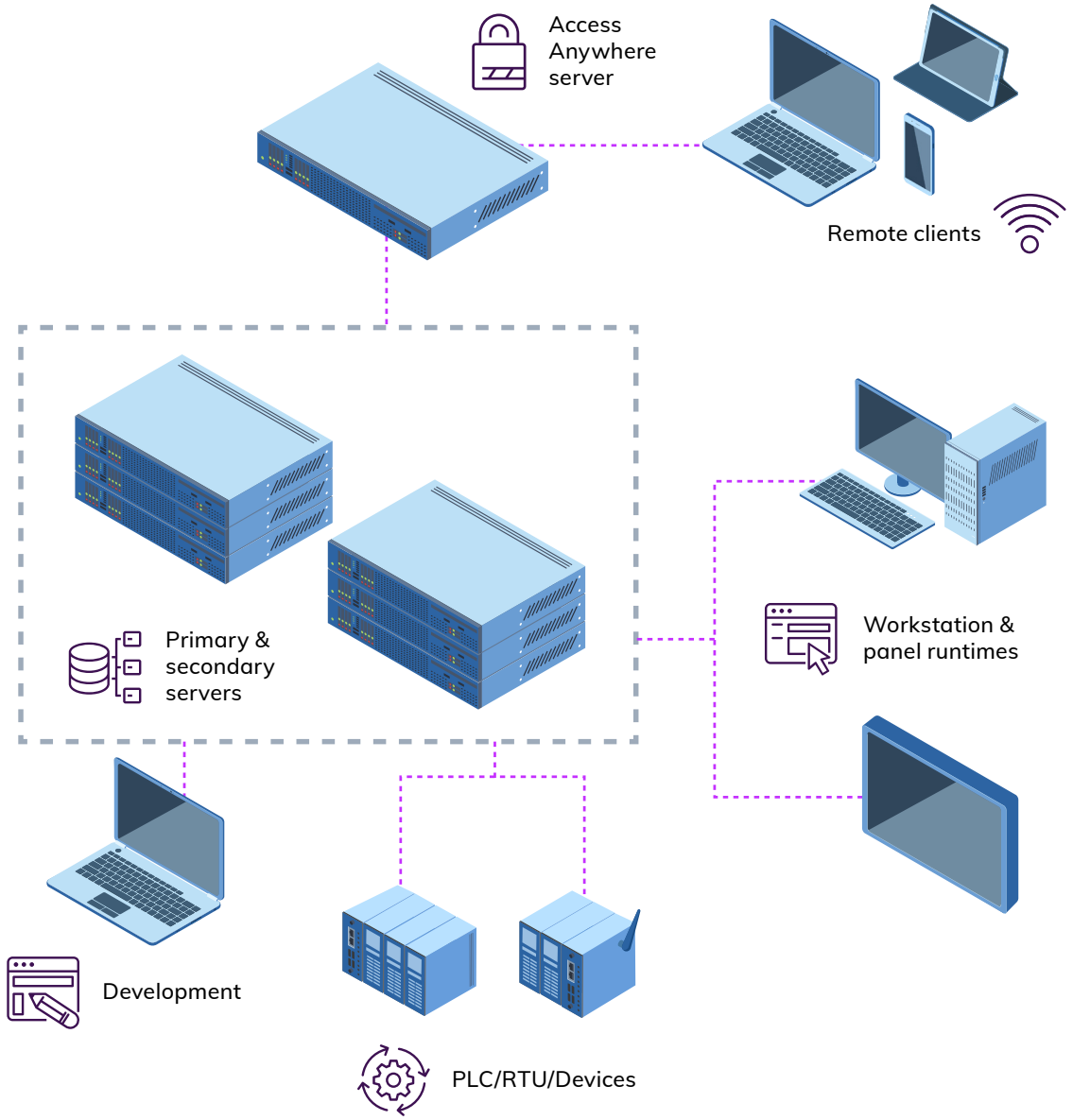
AVEVA Plant SCADA is highly flexible. You can deploy it in any configuration to meet the unique requirements found across industrial environments. Designed from the start for client-server architectures, AVEVA Plant SCADA is a distributed system that ensures high performance control and data integrity.

AVEVA Plant SCADA has four fundamental tasks that:

- Handle communications with I/O devices
- Monitor alarm conditions
- Report data output
- Display trending and visuals

Each task works as a distinct client and/or server module, performing its role and interfacing with the other tasks through the client-server relationship.

Each of these tasks is independent, performing its own processing. Due to this approach, users have control over which nodes in the system perform which tasks. For example, you can designate one node to perform the display and trending tasks, and a second node to perform alarming, communications, and reporting.This flexibility also pays off with redundancy: AVEVA Plant SCADA will tolerate failure anywhere in the system without loss of functionality or performance.

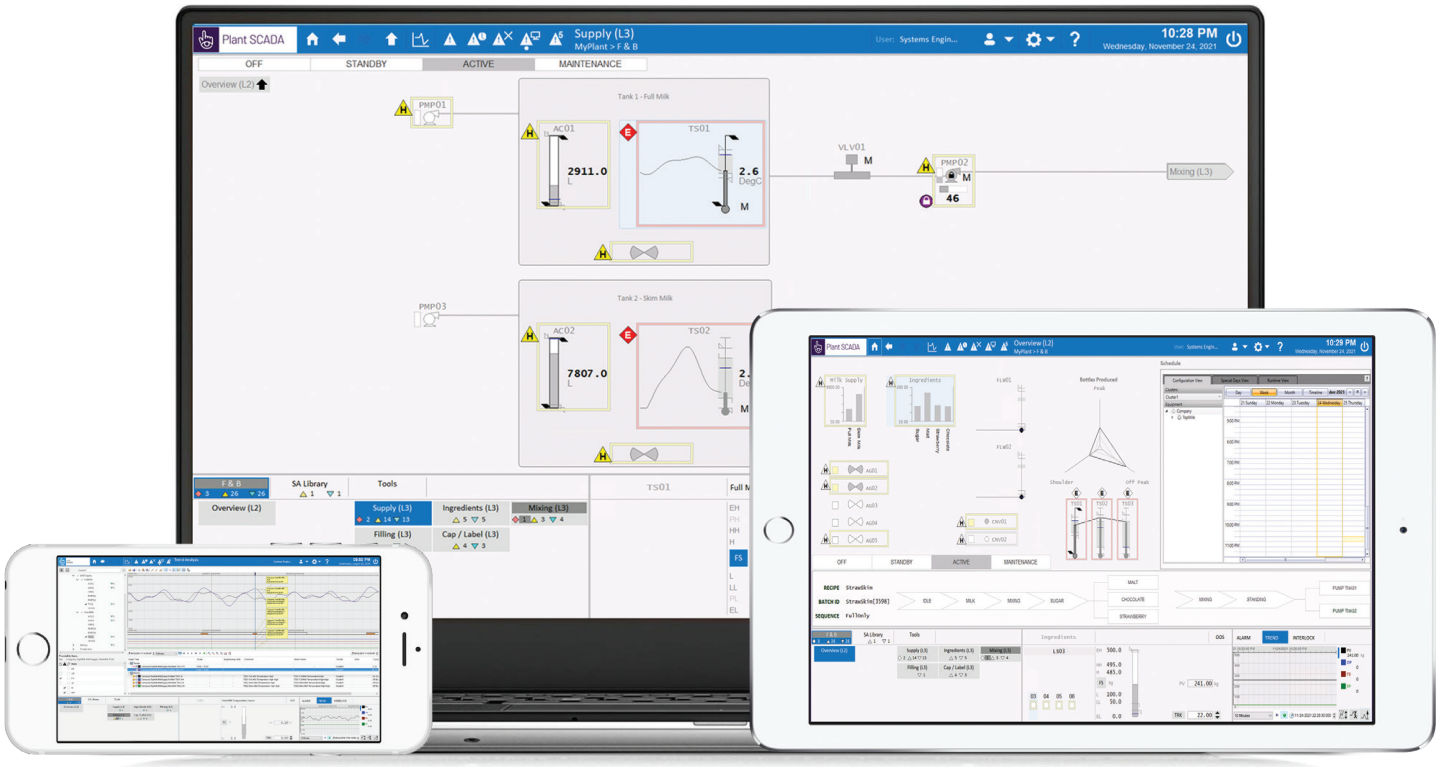


Clients and accessibility

Users can securely monitor, control, and troubleshoot plant equipment or processes from any location, on any device, at any time. Three options let users visualize, collaborate, and execute regardless of where they are or what their screen configuration is.

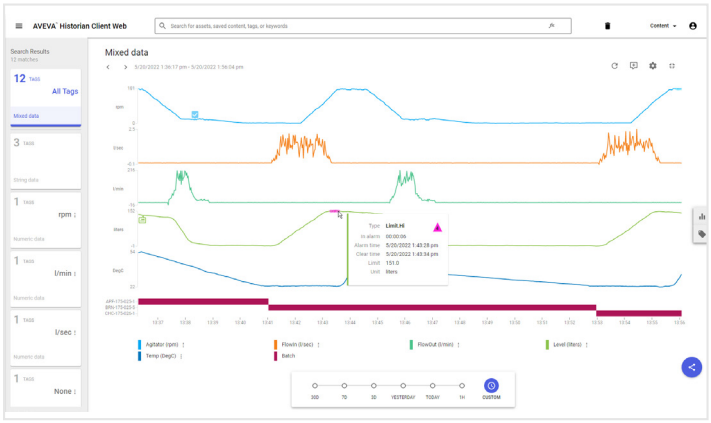
AVEVA Plant SCADA desktop client – full-featured desktop application for panel-based and control room-based workstations. This is the traditional SCADA experience for stationary operations users.

AVEVA Plant SCADA Access Anywhere – offers remote or mobile users read/write, secure access to a complete Plant SCADA application on any device with an HTML5-compliant web browser.

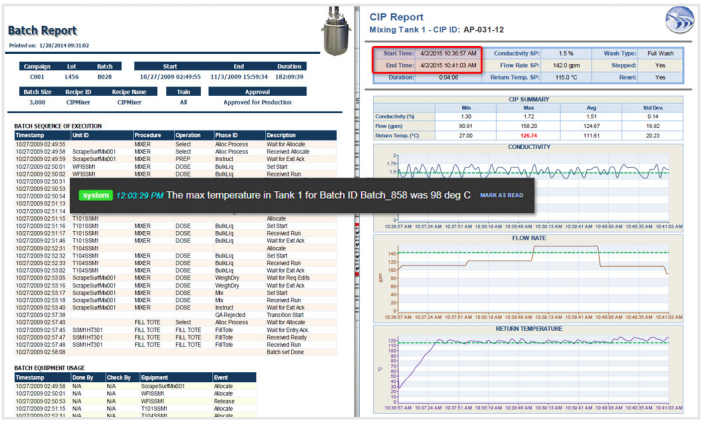


Extend across AVEVA's software portfolio

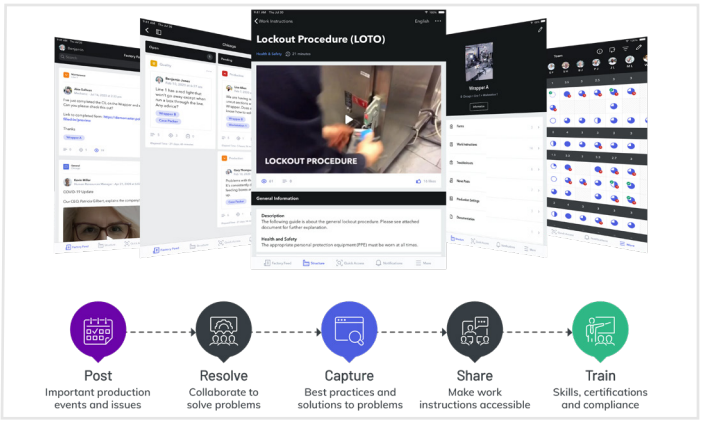
Benefit from holistic operations control with the unparalleled flexibility and convenience of AVEVA's market-leading software. From HMI and supervisory visualization, to collaboration, manufacturing execution, and analytics, the AVEVA portfolio gives teams a complete set of capabilities so they can improve operational excellence from edge to enterprise.



AVEVA™ Historian: Process database integrated with operations control that gives you access to your process, alarm, and event history data for detailed analysis and troubleshooting



AVEVA™ Reports for Operations: Configuration-based, drag-and-drop reporting solution for production, compliance, and performance reporting



AVEVA™ Teamwork: SaaS application for skills, development, knowledge sharing, and collaboration management across facilities and teams through documentation of procedures and best practices

AVEVA Plant SCADA 2023 R2 software licenses include AVEVA Historian and AVEVA Reports for Operations to deliver:

Secure data sharing and replication

AVEVA Plant SCADA captures OT time-series, alarms, and events, but the data is often trapped in the OT network or shared via manual exports. With AVEVA Historian, you can historize all the Plant SCADA data with exact precision for long periods of time while providing tools to analyze the raw data, or introduce data aggregation capabilities, allowing users to summarize, analyze, and share this process data over specific time intervals. These aggregated data types can provide Average, Min, Max, Totals, Ranges, counts as well as interpolated data with time bound or event bound summarization of this Plant SCADA shared to the cloud —giving internal teams and trusted partners on-demand access to deliver timely guidance while the data owner stays in control.

Streamlined creation of compliance reports

Compliance data captured from PLCs, PACs, Power Meters, etc. and delivered to AVEVA Plant SCADA can now be easily exposed to the AVEVA Historian storing large volumes of industrial data to provide a “single version of the truth” for operational improvements. Combine the AVEVA Reports for Operations with the AVEVA Historian to provide an out-of-the-box tool to standardize and accelerate recurring compliance reports with less manual effort.

For more information on AVEVA Plant SCADA, please visit: aveva.com/en/products/plant-scada