



AVEVA

PRODUCT DATASHEET

System Platform

Powered by Wonderware

Real-time Operations Control Platform for Supervisory, HMI, SCADA and IIoT

System Platform is the world's only responsive, scalable platform for Supervisory, SCADA, HMI and IIoT applications that integrates the process with the Enterprise. System Platform provides a collaborative, standards-based foundation that unifies people, processes and assets across all facilities for continuous operational improvement and real-time decision support.

Summary

- Provides a complete industrial automation solution that includes support for hybrid, on-premise and cloud-enabled applications.
- Acts as an 'Industrial Operating System' that provides common application services, including configuration, deployment, communication, security, connectivity and collaboration.
- Interfaces with virtually any field device and manufacturing plant information system thanks to an open and scalable architecture.
- Enables users to build, test, deploy, maintain and scale industrial applications by sharing a standards-based application development environment.
- Empowers users with responsive cross-device visualisation, intelligent alarming, flexible analysis and powerful reporting tools.

Overview

Business Value

- Experience as much as 80% reduction in engineering effort and time to create applications due to ease of use, elimination of scripting and out of box content.
- Drive standardisation across all your plants and sites with the lowest cost of ownership.
- Identify and resolve abnormal situations 5 times before any availability is impacted.
- Increase your operator effectiveness by 40% or more reducing task completion time.
- Start small and scale seamlessly with plug-in modules for maximum reuse of your engineering investment.

What's New?

System Platform is even more versatile and powerful with the first ever responsive, Operations Management Interface (OMI). InTouch OMI visualisation engine provides rich responsive, modern user experiences across all platforms without requiring scripting or programming! Easy to use, responsive design features make, making multi-monitor configurations possible in less than 5 minutes. We've also improved and simplified system scalability. You can now run up to 10 times more client sessions on a terminal server with the entire application project running on single node.

The latest platform offers an even more open and collaborative environment than ever before. For ease of use and integration, System Platform now offers 3rd party software partners an Apps SDK development environment to build native 'plug and play' contextualised apps. Apps SDK enables 3rd party developers to build WPF and web applications for InTouch OMI client and a means to convert existing .NET controls to WPF. Out-of-box context-driven 'plug and play' apps improve productivity and efficiency through information-enabled operations.

The new built-in Document Viewing App and Video Player App enable linking to external content such as documents, videos, images, web links for enhanced informational context to assets and UI navigation items.

The new Mapping App improvements enable:

- Dynamic asset tracking of moving equipment/ personnel capability
- Maps from Google Maps, Bing, OpenStreet and ESRI
- Layering of HTML5 based ArchestrA Graphics

Easy to Build.

Responsive HMI Development Has Come to Industrial Software.

System Platform offers includes InTouch OMI, the world's first 'responsive HMI framework,' a revolutionary new way to build re-usable HMI content.

- Helps you easily create the optimal user experience across multiple form factor display devices.
- Helps you to easily create, functional, best practice interfaces and graphics that look and work great on all your devices from big screen monitors to smart-phone displays.
- Configure once, deploy anywhere. Reusable and standardised HMI content translates to the lowest development and maintenance costs.

Applications Automatically Build Themselves Dynamically!

With all the new features in InTouch OMI and System Platform, you can build rich, powerful applications without the need for scripting. By using new model-driven smart navigation capabilities, multi-monitor configurations and screen profiles, you can use your project's specific plant model and content to automatically link graphics to objects.

- Automatic, model-driven navigation eliminates the need for you to build the navigation hierarchy by hand.
- Generate Supervisory structures and tags that automatically mirror your PLC control logic.
- Link and map HMI/SCADA tags to physical device IO automatically the namespace of your PLCs and other controllers.

Engineers Can Be Wizards.

New Object and Symbol Wizards revolutionise how you design, build and manage industrial applications.

- Object wizards create versatile templates that adapt based on a device's configuration during the commissioning stage. This drastically reduces the number of templates required to accommodate different configurations for the same device.
- Symbol Wizards help to standardise how you configure and orient symbols while minimising application assembly and maintenance effort. Symbol Wizards enable engineers to choose custom configuration options like graphical elements, scripts or custom properties, and automatically assemble them into a single composite symbol.

Access the Most Comprehensive Out-of-The-Box Content.

With an incredible range of included content, you can save time, reduce development costs, and reduce to time to value compared to custom configurations.

- Reduce the time to value by decreasing the engineering development time with a complete automation library that provides 80% of your typical application.
- Select content that's most relevant to you from a pre-built Automation Library that includes: a process device object library, faceplates, trends and symbols. All library content is hardware vendor agnostic and operates seamlessly with any vendor. This enables DCS functionality for any PLC, PAC and DCS without the cost or complexity of a DCS.
- A pre-built starter covers complete project needs based on ISA standards, so engineers have a working model that follows best practices for auto deployment setup.
- Automation library lets engineers get to work immediately and quickly assemble applications with proven strategies, rich functionality and known performance.

Build Together with Agile Cloud-based Development.

System Platform with InTouch OMI continues to be the most sophisticated and collaborative application development environment in the industry.

- The entire application design and testing environment can reside in the cloud, to enable teams of engineers to work on applications across proof-of-concept, development and FAT testing stages before deploying to the production system.
- The new visualisation configuration supports concurrent development by enabling multiple developers to work concurrently and remotely on the same application at the same time - without any lock-out issues.
- New device simulator, HMI live preview and WYSIWYG editors offer the ability to build, test and optimise any monitor configuration or HMI content to perform on every display screen, regardless of resolution—the first time, every time! You can even test multi-monitor configurations without physical access to the monitors themselves.

Easy to Use.

Empower Operators with Situational Awareness.

Equip your Operators with actionable information that helps them quickly identify and resolve abnormal situations before they can result in process delays.

- Operators can quickly navigate HMI displays with modern UI/UX design. This increases usability across devices and provides multi-touch and gesture controls such as panning & zooming, clutter & declutter of graphical layers and a larger view of the process.
- Uncover new insights and operator training opportunities by giving context to historical activity and access to operational process playback views. The new historical playback ability works on any graphic and on any monitor screen—no scripts or no configuration necessary. Just hit play.
- Making decisions based on geography is basic to human thinking. The new mapping app enables operators to become more productive, more aware, and more responsive of remote geographically distributed assets.
- Make it easier for all users with smarter UI navigation

and display options that use your plant model or pre-defined criteria to bring rich context to your assets, alarms and time durations.

- Shifting between process-centric views and IT processes used to require multiple applications. Now, with contextualised apps built on a unified integrated platform, you can access non-traditional information sources (e.g. work orders) without shifting application contexts.
- Statistical summary process data (e.g. maximum, minimum, average, etc.) is automatically calculated in real-time without any coding.
- Increased system performance enables you to process 1 year of historical data in less than a second, giving you immediate access to client performance trends.

Graphical Tools for Techs!

New visual build functionalities improve accessibility for non-engineering users (P&ID techs, maintenance techs, HMI developers) by reducing the technical knowledge required for routine tasks like adding devices, replacing devices and editing their respective HMI screens.

- Defining process control objects independently compared to how they're presented during implementation, it paves the way for task-oriented workflows that are optimised for differing skill sets.
- The new graphical workflow auto-deploys object instances when creating new HMI displays.
- The new graphical toolbox enables rapid graphics assembly and editing using a searchable pick list, to streamline the HMI build process.

Intelligent Alarming Supports Operator Productivity.

Now it's easier for operators to focus on the most relevant process information on their screen at all times. System Platform reduces operator distractions and fatigue by identifying and allowing you to filter out nuisance and 'bad actor' alarms based on severity.

- Increase operator productivity with advanced alarm management capabilities like state-based alarming, alarm suppression, alarm shelving, alarm grouping and aggregation (active and historical) alarms.
- Operator alarm awareness has increased due to capability of having active alarm aggregation from the user interface navigation tree.

Easy to Own.

The Best of All Worlds: Hybrid, Cloud, On-Premise & IIoT

Supporting a mix of on-premise or cloud-based applications offers the most pragmatic and flexible shift to real-time control and actionable insights.

- Identify any discrepancy and root cause using advanced Historian capabilities such as automated anomaly detection.
- Access efficient reporting and analysis tools such as intuitive prebuilt charts and dashboarding or dashboarding capabilities designed especially for non-technical business users.
- Empower Operations to control and monitor industrial and production sites anywhere, on any internet-connected device using responsive and mobile-optimised HMI displays.
- Improve decision support with cloud-based Historian that transforms information from across the enterprise into a single source of actionable information for operational, engineering and corporate business users.

Reduce the Administrative Burden on IT.

System Platform makes application delivery much easier and reduces IT administration burden due to a zero client installation approach. This greatly simplifies the lifecycle maintenance and updating of client applications (with newer revisions) across multiple PC machines.

Efficiently Integrate Your Process with Your Enterprise.

System Platform gives 3rd party software partners an Apps SDK development environment to build native contextualised apps.

- A collection of these apps can transform your applications from standalone products to reusable, shared enterprise services.
- These 'plug and play' apps enable the convergence of IT and OT by connecting and integrating real-time operational data with business systems. Furthermore, integrating IT and OT infrastructures makes it easier to maintain assets across the project lifecycle.

Eliminate System Downtime.

System Platform greatly mitigates the risk of application downtime.

- Make incremental system changes in response to staged object deployments within 1 scan cycle. In other words, make continuous object updates on the fly.
- Enable continuous proactive monitoring of your system's health, performance and availability.
- Equip IT personnel to be proactive responders by implementing automatic trigger alerts in response to upset conditions.
- Manage system patches from a central location by downloading and pushing updates directly to networked machines.

Ease Administrative Tasks with Streamlined Licensing.

System Platform enables you to efficiently monitor and administer software licenses to enforce compliance for all users. With centralised, web-based licensing activation, you can automatically discover and verify installed software at each plant facility, create detailed inventory reports of licenses, and establish compliance reports with ease. Basic license server monitoring capability through Sentinel is included with no additional licensing or cost.



Technology Compatibility Support

OS Compatibility

- Windows 10 Enterprise (x64, x86), Professional (x64, x86)
- Windows 8.1 Enterprise (x64, x86), Professional (x64, x86)
- Windows Server 2012 Data Center, Embedded
- Windows Server 2012 R2 Data Center, Embedded, Standard
- Windows Server 2016 Data Center, Standard

Database Compatibility

- SQL Server 2012 Standard Sp2 (x64, x86), Enterprise (x64, x86), Express-SSMSE
- SQL Server 2012 Standard SP2 (x64, x86), Enterprise (x64, x86), Express-SSMSE (x64, x86) SP1 and SP2
- SQL Server 2014 Standard (x64, x86), Enterprise (x64, x86), Express-SSMSE (x64, x86)
- SQL Server 2014 Standard (x64, x86), Enterprise (x64, x86), Express-SSMSE (x64, x86) SP1
- SQL Server 2016 Standard, Enterprise, Express

Virtualisation Compatibility

- Microsoft Hyper-V: based on the version of Windows
- VMware 6.0 virtualisation with High Availability and Disaster Recovery (HA/DR)
- VMWare vSphere 6.0
- VMware 5.0 Update 1 virtualisation with High Availability and Disaster Recovery (HA/DR)

For more information on System Platform, please visit:
sw.aveva.com/monitor-and-control/hmi-supervisory-and-control/system-platform