



## DATASHEET

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# AVEVA™ Edge

## SCADA and HMI from Edge to Enterprise

AVEVA Edge is a comprehensive platform that includes all the tools you'll need to make SCADA and HMI applications that have real power behind them. The development environment allows you to develop once and deploy anywhere. AVEVA Edge supports all Windows runtime platforms (including 32 and 64 bit), ranging from Windows Embedded Compact, Windows Embedded Standard, Windows 8.1/10 and Windows Server Editions (Server 2012/2016/2019), along with built-in support for local or remote (web) based visualization. AVEVA Edge also offers a runtime edition (IoT View) available for Linux and other embedded platforms.

Build powerful graphical displays, and take advantage of the 250+ available communication drivers for all major PLC products. AVEVA Edge includes OPC UA and OPC Classic (HDA and DA), trends, alarms, reports, recipes and built-in SQL database support as standard features. Not all features supported on all platforms.



**InTouch Edge HMI is now AVEVA Edge:** InTouch Edge HMI becomes AVEVA Edge in 2020, with a unified development environment that allows you to design once and deploy anywhere.

- **AVEVA Edge SCADA:** The full Windows based runtime offers all the tools you need for advanced SCADA applications
- **AVEVA Edge HMI:** AVEVA Edge for embedded systems such as Windows Embedded operating systems. The small footprint makes AVEVA Edge HMI ideal for embedded and edge machines
- **AVEVA Edge Compact HMI:** Compact HMI is designed especially for Windows CE operating systems.
- **AVEVA Edge IoT View:** IoT View is designed for Linux devices, and enables edge computing on even small devices such as a Raspberry Pi
- **AVEVA Edge Studio:** The integrated development environment that allows you to design applications once and deploy them on almost any platform.

## New in AVEVA Edge 2020

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- **Integrated Industrial Graphics Editor:** Edit and/or import Industrial Graphics and integrate them with AVEVA Edge projects.
- **Updated development environment:** A modern interface and improved user interface increases productivity and adds the ability to customize themes (color and style) in the development environment.

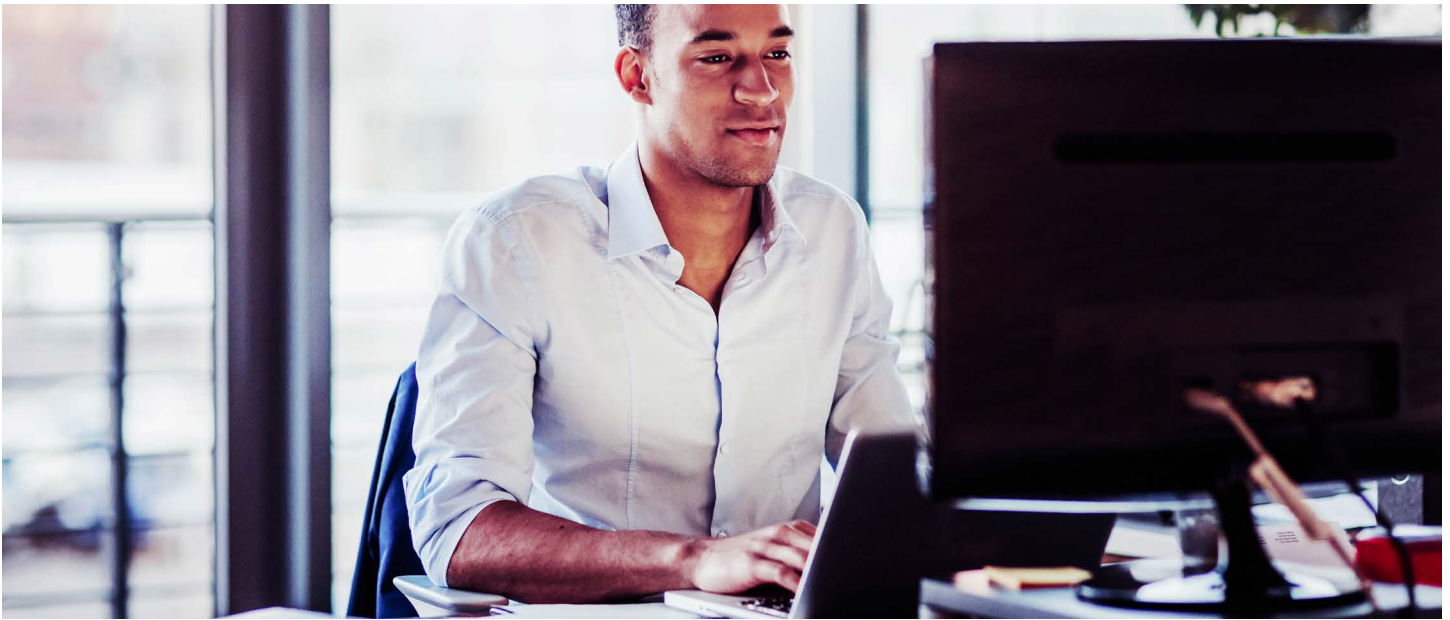
- **Mobile Access Client Improvements:** New interfaces are supported for Mobile Access Thin Clients (HTML5) including a Trend Start Date/Time and Duration, E-Sign, and others.
- **MQTT SparkplugB Publisher:** Enhancements in the MQTT interface enable AVEVA Edge to publish data according to the MQTT SparkplugB standards.
- **IoT Remote Management:** Cloud-based provisioning of AVEVA Edge SCADA and AVEVA Edge IoT View is now supported, along with the Edge Management Services portal in the AVEVA Cloud, which enables users to pair edge devices running AVEVA Edge and remotely monitor device health or update applications.

## AVEVA Edge Features

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### Alarms

Send online alarms or reports using multi-media formats like PDF. Alarms are real-time and historical; log data in binary format or to any database. Use remote notification to send alarms right to your inbox, printer, or smartphone. Custom Alarm fields allow you to customize up to 10 additional fields to the alarm history.



### **Animation**

Take command over graphics in a user friendly and intuitive interface. Paste images, and even rotate dynamically using custom rotation points. Fill bar graphs with color or adjust the scale of objects with easy-to-use configuration. Other animations include 'command' (for touch, keyboard and mouse interaction), hyperlink, text data link, color, resize, transparency, and position.

### **Business Intelligence**

Transform raw data into meaningful information. Design custom dashboards in minutes with the AVEVA Edge.\*

### **Cloud**

Natively connect with the AVEVA cloud to take advantage of tools like AVEVA Insight for or Edge Management Services to get a holistic view of your business and pair edge devices running AVEVA Edge to the cloud and remotely monitor health and status or update applications.

### **Database**

Connect to any SQL database (Microsoft SQL, MySQL, Sybase, Oracle), or Microsoft Access or Excel, and ERP/MES systems (including SAP), even from Windows Embedded Compact Edition. The flexible built in interface doesn't require knowledge of SQL.

A patented solution allows for communication with SQL and relational databases running on any supported platform.

### **Drivers**

Use over 250 native communication drivers for PLCs, temperature controllers, motion controllers, bar code/2D/RFID readers, and many others such as MQTT (with Sparkplug B) and robots. Use native drivers, connect to an OPC server, or use AVEVA driver toolkits even to build your own drivers. Save time with comprehensive tag integration.

### **Email**

Send email (with attachments) or text messages that can be accessed from mobile devices. Get real-time information on alarms, process values, and other events. Full runtime supports SSL encryption.

### **Events**

Ensure traceability for operator-initiated actions or internal system activities. Log events such as security system changes (user logon or off), screen open/ close, recipe/report operations, system warnings, and any tag value changes, including custom messages.

### **FDA Traceability**

Take advantage of built-in functionality to create 21 CFR part 11 compliant projects with traceability and e-signatures. These features are often used for pharmaceutical and food applications but can be used for any application where traceability is a requirement.

## FTP

Automatically upload or download files during runtime to/from remote storage locations using the FTP protocol and flexible scripting functions. Configure FTP via scripting or the included interface.

## Graphics and Design Tools

Create screens to meet any application requirement using the tools in our graphic editors. Combine, animate objects to create any functionality required. Use the hundreds of symbols included Industrial Graphics libraries, and easily make projects across a product line share a consistent “look and feel”.

## Historian

AVEVA has optimized the trend history, featuring data decimation designed to load millions of values from SQL Relational Databases. Easy to use tools provide quick access to Statistical Process Control (SPC) values without any need for programming. AVEVA Edge offers add-on integration with the AVEVA™ Historian and support for AVEVA™ Insight.

## IoT View

IoT View is a platform agnostic core runtime for Linux, VxWorks, and other embedded platforms. Make intelligent embedded systems and add your machines to the Internet of Things, Industrial Internet of Things (IIoT) and Industrie 4.0.

## Import Wizards

Convert whole applications from FactoryTalk™ ME/SE, PanelMate™, or PanelBuilder™32. Save time in conversion from a previously designed application to an AVEVA Edge application.\*

## Intellectual Property Protection

Protect your intellectual property with just a few mouse clicks. Screens, documents, scripts and worksheets can be individually password protected. This prevents unauthorized viewing or editing of your project or application.

## JavaScript Custom Widgets

Custom Widgets integrate 3rd party, reusable JavaScript, HTML5, and CSS interfaces properties and events to expand and enhance the graphical interface.

## Mobile Access

A multiple document interface for this thin client allows you to access your graphical interface from any device with a browser that supports HTML5, such as iPads, iPhones, Android devices, Windows devices, and others. AVEVA Edge includes support for Industrial Graphics and all native objects and allows you to integrate 3rd party web-based controls.



## Multi-Language

Develop your application in one of many development languages, including English, Portuguese, German, French, Russian, Chinese Traditional and Simplified, Japanese and Spanish, or use translation tools to switch the runtime to any language. AVEVA Edge offers automatic font replacement based on the language selected.

## Multi-touch Interface

Develop applications for touch screen devices. AVEVA Edge’s multi-touch interface allows development for any touch-screen enabled device. Use familiar, modern interface gestures, like pinch zooming and panning. Scroll through alarms using swiping gestures; inertia in the multi-touch interface offers a comfortable user experience. Rotate graphics, dock screens, and take advantage of features like dual-touch command. Swipe gestures to change screens or other commands.

## .NET and ActiveX

Use 3rd party controls to enhance your project. AVEVA Edge is a container for ActiveX and .NET controls, allowing you to add functionality such as browsers, media players, charting, live streaming from cameras, and other ActiveX or .NET controls.

## OEM

AVEVA Edge can be customized for OEMs who want to offer pre-installed HMI or SCADA software on their hardware, or for OEMs who want to add value to their machines by offering remote monitoring, maintenance, or customizable applications.

## OPC

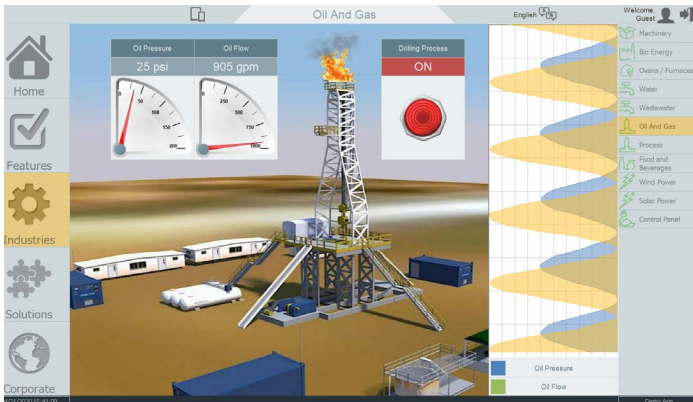
AVEVA Edge provides native OPC interfaces, such as OPC UA (Client/Server), OPC DA (Client/Server), OPC XML (Client), and OPC HDA (Server). OPC UA and OPC DA also offers native redundancy configuration and tag integration for OPC DA and OPC UA Servers.

## PDF Export

Send Alarms, Reports, or any file to a production supervisor, quality manager, or maintenance staff using the included PDF writer.

## Recipes

Save time and maintain consistency by automating part parameters or production quantities with flexible recipe management tools. Options including loading directly to PLC or edit before committing to PLC.



## Redundancy

For critical applications where data is vital, AVEVA Edge supports web server, database and overall system redundancy to protect your information.

## Reports

Create clear, concise reports in plain text, RTF, XML, PDF, HTML, and CSV or integrate with Microsoft Office programs such as Excel. Get the data you need, in the format you need it, to make informed decisions, fast. AVEVA has also partnered with Ocean Data Systems to offer further reporting capabilities through Dream Report\*.

## Scalable

Use the same development environment to design and deploy projects to a wide range of platforms, such as Linux, Windows Embedded Standard, Windows Embedded Compact, Windows 8., Windows 10, Server 2012, Server 2016 and Server 2019 editions. See Tech Ref for details.

## Scheduler

Schedule application behavior triggered by tag changes, date/time, frequency, or any trigger. Use this for simulation, to trigger reports or other functionality at a particular time of day, or even to trigger driver worksheets to read/write at a scan rate you choose.

## Scripting

Three powerful scripting languages are supported; built-in AVEVA functions, Industrial Graphics Quick Script and standard VBScript. Take advantage of widely available resources for VBScript. Both the native AVEVA scripting language and VBScript can be used simultaneously to give you the functionality you need, even from thin clients. Script debugging tools for the native VBScript editor include breakpoints, and a variable watch list to improve scripting productivity.

## Security

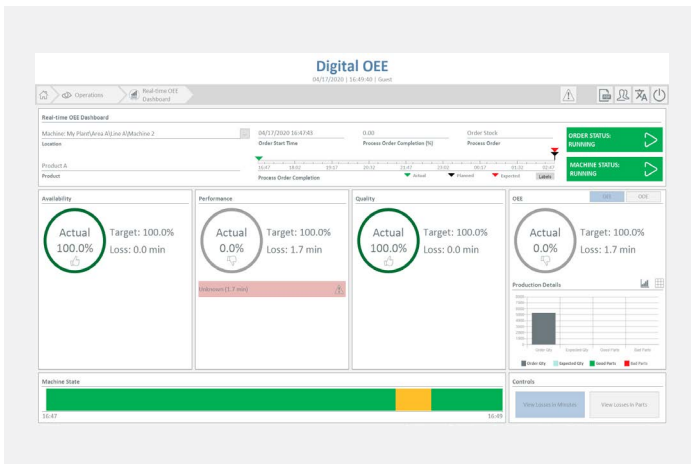
AVEVA Edge includes support for group and user accounts, e-signatures, and traceability. Integrate your project to the Active Directory (Users and Groups).

## Standards

Use common standards to develop applications that are compatible with TCP/IP, .NET, ActiveX, OPC (client and server), ADO/ODBC, COM/DCOM, OLE, DDE, XML, SOAP, and HTML5.

## Symbols

The included libraries feature push buttons, pilot lights, tanks, sliders, meters, motors, pipes, valves and other common objects. Use the 1,000+ included symbols in your project, modify existing symbols to suit your needs, or create your own from scratch. AVEVA Edge supports 3rd party symbol libraries and graphic tools.



## Templates and Add-Ons\*

AVEVA Edge has several plug and play templates available including: Andon, OEE, and PackML.

## Tag Database

AVEVA Edge features an object-oriented database with boolean, integer, real, strings, arrays, classes (structures), indirect tags and included system tags. Built-in functions allow you to create, delete, or modify the tags database settings during the runtime. This feature increases the flexibility to design generic templates that can be easily customized to each project, even during the runtime. AVEVA Edge also offers tag integration from a wide range of PLCs, including Schneider Electric.

## Trends

Real-time and Historical trends, and SPC functionality are supported. Log data in binary format, or to any local or remote SQL database and optionally to AVEVA Historian\*. Color or fill trends with graphic elements to enhance clarity of data. Date/Time based or numeric (X/Y plot) trends give you the flexibility to display information that best suits your application. AVEVA Edge supports vertical and horizontal trending.

\*Additional licenses required.



## Troubleshooting

Quickly debug and verify a project using local and remote tools for troubleshooting, including status fields, HTML5 based Watch Window for IoT View, Watch Window and LogWin. Capture screen open and close times, see communications in real-time, messages related to OPC, recipes/reports, security, database errors and even custom messages. Finish your project quickly using these powerful tools.

## XML Screen Toolkit

Modify or create screens during the runtime or import screens that you've created. This feature is available as an add-on.

For more information about AVEVA Edge, visit [sw.aveva.com/monitor-and-control/hmi-supervisory-and-control/intouch-edge-hmi](http://sw.aveva.com/monitor-and-control/hmi-supervisory-and-control/intouch-edge-hmi).