

## DATASHEET

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# AVEVA™ Edge

## SCADA and HMI from Edge to Enterprise

### Choosing the right version of AVEVA Edge 2020 R2

- **AVEVA™ Edge Studio** – Design Once, Deploy Anywhere
- **AVEVA™ Edge 2020 R2** offers an Integrated Development Environment (IDE) 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



## Enhancements in AVEVA Edge 2020 R2

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AVEVA Edge 2020 R2 builds on the previous enhancements to the product in the 2020 version and adds further capabilities and flexibility to the newest version.

### Protecting your investments – industrial graphics enhancements:

- Style Management support
- Tag Browser
- Symbol Export
- Improved Edge Arrays Support

### Mobile access improvements

- Trend Support for Indirect Tags
- Trend Duration and start tags
- Open() with position and at cursor location (enhancement)
- Database functions (performance)
- File Functions (enhancement)

### AVEVA Edge IoT View Enhancements

- Performance and stability improvements
- Support proprietary files for Trends
- Support for Alarms and Events with proprietary files and database
- Alarm related Tag properties for HiHiLimit, HiLimit, LoLimit, LoLoLimit, HiHi, Hi, Lo, LoLo, AlrStatus, Ack, and Unack

### AVEVA Edge general user interface enhancement

- Archive project as .zip

### New AVEVA Edge 2020 R2 drivers for IoT View

- TI500 Linux
- ROC Linux and Windows
- MQTT Sparkplug B Linux and Windows

## 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 text file 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/visibility, and position.

**Business Intelligence:** Log data directly to AVEVA Insight<sup>1</sup>.



**Cloud:** Natively connect with the AVEVA cloud to take advantage of tools like AVEVA Insight<sup>1</sup> 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 other devices. 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 for PLCs. Drivers included for Modbus, MQTT Sparkplug B, Allen Bradley, Siemens, Mitsubishi, Omron, Schneider-Electric and many others.

**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 interface. Combine over 1,000 animated objects to create any functionality required. Store graphics in the library for future use, 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 Wonderware Historian and support for AVEVA Insight<sup>1</sup>.

**IoT View:** IoT View is a platform agnostic runtime for Linux, , 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<sup>1</sup>.

**Industrial graphics:** A new and additional graphics editor provides new tools and additional graphics and libraries. Extensive animations, Situational Awareness, style management, and symbol import/export are all included.

**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 3<sup>rd</sup> party, reusable JavaScript, HTML5, and CSS interfaces properties and events to expand and enhance the graphical interface. Included Custom Widgets: pie chart, tree view, calendar, image list and web browser, or create your own.

**Mobile access:** 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 now includes support for all native objects and allows you to integrate 3<sup>rd</sup> party web-based controls.

**Multi-Language:** Develop your application in one of many development languages, including English, Portuguese, German, French, Polish, Russian, Chinese Traditional and Simplified, Japanese and Spanish, or use external 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 InTouch Edge HMI'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 3<sup>rd</sup> 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, text file or Word document in the Portable Document Format 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 for AVEVA Edge1.

**Scalable:** Use the same development environment to design and deploy projects to a wide range of platforms, such as Linux, , Windows Embedded, Windows CE, , Windows 8.1, Windows 10, Server 2012 R2, Server 2016 and Server 2019 editions. (See Tech Ref for more 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:** Several powerful scripting languages are supported; built-in AVEVA Edge functions 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 break-points, and a variable watch list to improve scripting productivity. Included with Industrial Graphics is the flexible and powerful Quick-Script language.

**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, REST and HTML5.

**Symbols:** The included native graphics library features 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 3<sup>rd</sup> party symbol libraries and graphic tools. Industrial Graphics adds additional symbol libraries including Situational Awareness graphics to make it efficient and easy to understand what is happening.

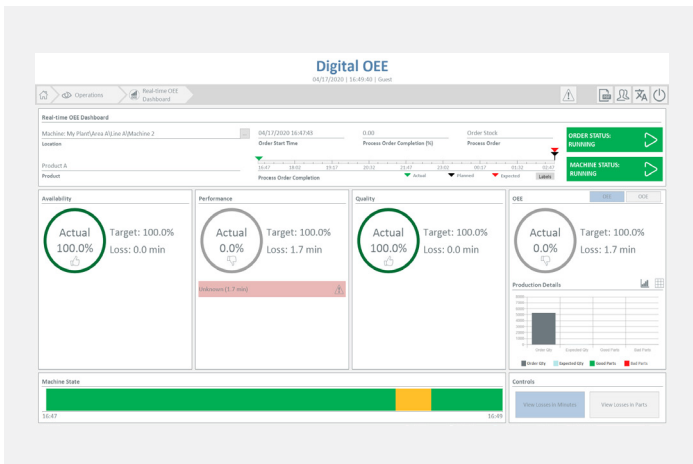
**Templates:** AVEVA Edge has many templates and sample applications available including: Andon, Digital OEE, PackML, and Business Intelligence.

**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 or AVEVA Insight. 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.

**Troubleshooting:** Quickly debug and verify a project using local and remote tools for troubleshooting, including status fields, HTML5 based Database Spy 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<sup>1</sup>.



AVEVA Edge 2020 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 2012R2/2016/2019), 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.

<sup>1</sup>Additional purchase required

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

