



Choosing the ideal AVEVA™ Edge runtime edition solution for your project

AVEVA Edge STUDIO is an integrated development environment (IDE), which allows you to design, develop, troubleshoot, and maintain SCADA/HMI/IoT applications running on premise edge and deploy them into different platforms (operating systems).

You can use the same development environment (AVEVA Edge STUDIO), on Windows, to create all projects and run each project with the runtime edition most suitable for the technical and commercial constraints of each platform: AVEVA Edge SCADA for SCADA projects running on Windows-based stations; AVEVA Edge Embedded HMI for full featured HMIs running on Industrial Panels with Windows IoT Enterprise LTSB/LTSC; and AVEVA Edge IoT View for IoT edge devices or local HMI solutions using Linux. This document is valid for AVEVA Edge 2023.

| Platforms | | AVEVA Edge Runtime Editions | | |
|---------------------|--|-----------------------------|---------------|---------------|
| | | SCADA | Embedded HMI | IoT View |
| Operating system | Windows Server 2022 | Supported | Not supported | Not supported |
| | Windows Server 2019 | Supported | Not supported | Not supported |
| | Windows Server 2016 ⁽¹⁾ | Supported | Not supported | Not supported |
| | Windows 11 | Supported | Not supported | Not supported |
| | Windows 10 ⁽²⁾ | Supported | Not supported | Not supported |
| | Windows 10 IoT Enterprise (LTSC/LTSB) ⁽²⁾ | Supported | Supported | Not supported |
| | Linux (x86/arm) ⁽⁴⁾ | Not supported | Not supported | Supported |
| System requirements | Minimum free storage memory needed | 4GB | 128MB | 75MB |
| | Minimum free RAM memory needed | 1GB | 64MB | 32MB |

1. Windows Server 2016 version 1709 or newer
2. Windows 10 version 1909 or newer (including LTSC/LTSB versions)
3. This note reserved for future use
4. Linux on x86 processors with libc: 2.23, libstdc++: 6.0.21 (or newer) or Linux on arm processors with libc: 2.23, libstdc++: 6.0.21 (or newer)

Feature comparison

When installing AVEVA Edge in your computer, it installs the development environment (AVEVA Edge STUDIO), along with the AVEVA Edge runtime editions compiled to support specific platforms. You can consult the technical reference manual (help) from AVEVA Edge STUDIO on how to deploy runtime editions in remote stations. The following table describes the features supported by each AVEVA Edge runtime edition. You can use the same development environment (AVEVA Edge STUDIO) to create projects for any AVEVA Edge runtime edition. In other words, the projects are the same for any platform. Each runtime edition of AVEVA Edge has been compiled to support specific platforms, with the capabilities and limitations described below. This document focuses only on the main capabilities of each feature. Consult the technical reference manual (help) for additional details on capabilities and limitations of each runtime edition.

| Feature | | AVEVA Edge Runtime Editions | | |
|---|--|---|--|--|
| | | SCADA | Embedded HMI | IoT View |
| General | Run applications designed with the same IDE | Supported | Supported | Supported (8.0) |
| | Run as a service | Supported | Not supported | Not supported |
| | Email (SMTP Client) | Supported | Supported | Supported ⁽²⁷⁾ |
| | Create tags programmatically during the runtime | Supported | Not supported | Not supported |
| | Create screens programmatically during the runtime | Supported | Not supported | Not supported |
| | Create reports in PDF format | Supported | Not supported | Not supported |
| | Built-in functions | Supported | Supported with limitations ⁽²⁾ | Supported with limitations (8.0) ⁽²⁾ |
| | Tag integration (Shared Tags) | Supported | Supported | Supported (2023) |
| Global | Project Tags, System Tags, Classes and Arrays | Supported | Supported | Supported (8.0) |
| | Security system | Supported | Supported | Supported with limitations (8.0) ⁽¹⁶⁾ |
| | Procedures | Supported | Supported | Not supported |
| | Event logger | Supported | Supported | Supported with limitations (2020R2) ⁽²⁸⁾ |
| | Translation | Supported | Supported | Supported |
| Tasks | Alarms | Supported | Supported | Supported with limitations (2020R2) ⁽¹⁷⁾ |
| | Trend Logger | Supported | Supported | Supported with limitations (2020R2) ⁽¹⁸⁾ |
| | Native Integration with AVEVA System Platform | Supported | Supported | Supported with limitations (2020R2) ⁽²⁹⁾ |
| | Native Integration with AVEVA Historian (on premise) | Supported | Supported | Supported (2020R2 SP1) |
| | Native Integration with AVEVA Insight (on the cloud) | Supported | Supported | Supported |
| | Recipes | Supported | Supported | Not supported |
| | Reports | Supported | Supported | Not supported |
| | ODBC | Supported | Supported with limitations ⁽³⁾ | Not supported |
| | Math | Supported | Supported | Supported with limitations (8.0+SP1) |
| | Script | Supported | Supported | Not supported |
| | Scheduler | Supported | Supported | Supported (2020R2) |
| | Database/ERP | Supported | Supported | Supported with limitations (8.0+SP1) ⁽²⁵⁾ |
| Azure IoT Hub | Supported (2023) | Not Supported | Not Supported | |
| Communication | Drivers | Supported | Supported with limitations ⁽⁵⁾ | Supported with limitations (8.0) ⁽⁶⁾ |
| | OPC DA 2.5 client | Supported | Supported | Not supported |
| | OPC DA 2.5 server | Supported | Supported | Not supported |
| | OPC XML/DA client | Supported | Not supported | Not supported |
| | OPC UA client | Supported | Supported | Supported |
| | OPC UA server | Supported | Supported | Supported |
| | TCP/IP client | Supported | Supported | Not supported |
| | TCP/IP server | Supported | Supported | Not supported |
| | Mobile access runtime | Supported | Supported | Supported (8.0) |
| | OPC HDA server | Supported | Not supported | Not supported |
| Graphical Interface | Screens | Supported | Supported | Supported (8.0) |
| | Screen group | Supported | Supported | Supported (8.0) |
| | Graphic script | Supported | Supported | Not supported |
| | Local viewer | Supported | Supported | Not supported |
| | Server for SMA thin clients (HTML5) | Supported | Supported | Supported (8.0) |
| | Server for secure viewer thin clients | Supported | Supported | Not supported |
| | Server for web thin clients | Supported | Supported | Not supported |
| | Support for CGI web servers | Supported (8.0) | Supported (8.0) | Supported (8.0) |
| | Screen scripts | Supported | Supported | Supported with limitations (8.0) ⁽²⁰⁾ |
| | Shapes | Supported | Supported | Supported (8.0) |
| | Active objects | Supported | Supported | Supported with limitations (8.0) ⁽²¹⁾ |
| | Data objects (alarm/event, trend, grid) | Supported | Supported | Supported with limitations (8.0+SP1) |
| | Libraries - project symbols | Supported | Supported | Supported with limitations (8.0) ⁽¹⁹⁾ |
| | Libraries - linked pictures | Supported | Supported | Supported (8.0) |
| | Libraries - .NET controls | Supported | Not supported | Not supported |
| | Libraries - ActiveX controls | Supported | Supported | Not supported |
| | Libraries - custom widgets | Supported (8.0+SP1) | Supported (8.0+SP1) | Supported (8.0+SP1) |
| | Auto screen scaling | Supported | Supported with limitations ⁽⁷⁾ | Supported (8.0) |
| | Fill effects | Supported | Supported with limitations ⁽⁸⁾ | Supported with limitations |
| | Background picture | Supported | Supported with limitations ⁽⁹⁾ | Supported (8.0) |
| | Ellipse style types | Supported | Supported with limitations ⁽¹⁰⁾ | Supported with limitations (8.0) ⁽¹⁰⁾ |
| | Hint (Tooltip) | Supported | Supported with limitations ⁽¹¹⁾ | Supported with limitations (8.0) ⁽¹¹⁾ |
| | Command events | Supported | Supported with limitations ⁽¹²⁾ | Supported with limitations (8.0) ⁽²³⁾ |
| | Rotation animation | Supported | Supported with limitations ⁽¹³⁾ | Supported with Limitations |
| | Trend control > Export to file | Supported | Not supported | Not supported |
| Trend control > Points > Pen Style > Fill | Supported | Not supported | Not supported | |
| Enhanced graphics (anti-aliasing, gradual transparency) | Supported | Not supported | Supported (8.0) | |
| Multi-touch gestures | Supported | Supported with limitations ⁽¹⁴⁾ | Not supported | |
| Industrial Graphics | Supported with limitations | Not supported | Not supported | |
| Licensing | Number of tags | 150, 300, 1.5K, 4K, 16K, 32K, 64K, 512K, or Unlimited AEL: 1k, 2.5K, 10K, 100K and Unlimited | 150, 300, 1.5K, or 4K | 150, 300, 1.5K, 4K, or Unlimited ⁽³¹⁾ |
| | Number of thin clients | Unlimited ⁽²⁶⁾ | Unlimited ⁽²⁶⁾ | Unlimited ⁽²⁶⁾ |
| | License server | Supported | Not supported | Not supported |
| | USB hardkey | Supported | Supported with limitations ⁽¹⁵⁾ | Not supported |

1. Encryption supported by SCADA and Embedded HMI, but not supported by Compact HMI

2. The vast majority of the built-in functions are supported by all Runtime Editions. However, specific functions are Not supported on specific platforms. The complete reference is available in the Technical reference manual at "Appendix: Built-in Scripting Language > List of available functions"

3. Even though the ODBC worksheets (legacy) are not supported, the Database/ERP worksheets are supported

4. The image of the operating system must support Remote DCOM

5. The vast majority of the native communication drivers are supported by many runtime editions. However, specific native drivers are not supported on specific platforms. The complete reference is available through the actual product (Project Explorer > Comm > Drivers > Add/Remove Drivers). Moreover, IoT View supports main driver sheets only

6. Studio Mobile Access Tabular supported for both Embedded HMI and Compact HMI. Studio Mobile Access (HTML5) supported by Embedded HMI, but not by Compact HMI

7. The screens can be converted to a different resolution by using the command "Home > Convert resolution"

8. Fill effects are supported for rectangle objects

9. The following formats are supported: BMP, JPG, and PNG, as long as the image of the device supports these formats as well

10. The style type Ellipse is supported, but the style types Arc, Chord, and Ring are not supported

11. The Hint field will update the Hint System Tag. The graphical tooltip will not be automatically displayed on Compact HMI runtime nor on SMA Thin Clients

12. The Command events "On Down", "While Down", and "On Up" are supported. The remaining command events are not supported

13. The rotation animation is supported for closed polygons, but not for pictures

14. Compact HMI does not support "Zoom and Pan gestures on project screens" and "Gestures with Rotation animation"

15. The Hardware from the WiBu manufacturer is supported by all Runtime Editions (excluding IoT View)

16. LDAP and Local Plus are supported; Distributed mode is not

17. Alarm Online and Alarm History supported. Alarm history can be saved to Proprietary and Database formats

18. Trend Logger history can be saved to Proprietary, Database, and Historian (AVEVA Insight CSV/JSON) and AVEVA Historian on-premises (2020R2 SP1)

19. Project Symbols are supported, as long as their shapes, active objects, and/or animations are supported by the target platform

20. Built-in language only

21. Push button, List box and Smart message are supported now

22. The ActiveX control must be compiled to the target platform

23. Built-in language, Open/Close Screen, and Set/Reset/Toggle Tag supported. VB Script not supported.

24. Trend Control Object supported on SMA with Tagname Data Source only. Grid Control supported with Database Data source only

25. Sub-set of DB/ERP functions supported. DB/ERP worksheet not supported

26. Limited by license and external and physical constraints (hardware and operating system)

27. Email (SMTP Client) is supported by IoT View via exec() built in function calling a CURL script

28. Event history can be saved to Proprietary and Database formats

29. Native integration through the ITMEViewApp object for AVEVA System Platform is available for AVEVA Edge SCADA and AVEVA Edge Embedded HMI only. Integration via MQTT SparkplugB (requiring a third-party MQTT Broker) is available for AVEVA Edge SCADA, AVEVA Edge Embedded HMI, and AVEVA Edge IoT View

30. The Trend Logger task from AVEVA Edge SCADA, AVEVA Edge Embedded HMI and AVEVA Edge IoT View can save data natively into an external AVEVA Historian. AVEVA Edge (AVEVA Edge SCADA, AVEVA Edge Embedded HMI and AVEVA Edge IoT View) has a native OPC UA Server, which can expose tag values to any third-party system that provides an OPC UA Client, including the AVEVA Historian (on premise)

31. The UNLIMITED option is available only when AVEVA Edge IoT View is purchased in a subscription model (AVEVA Flex)