# Choosing between InduSoft Web Studio, EmbeddedView, CEView, and IoTView for your HMI Application

InduSoft Web Studio is an integrated development environment, which allows you to design, develop, troubleshoot, and maintain HMI/SCADA applications and deploy them into different platforms (operating systems). Even though the development environment (and the application) is the same for any platform, InduSoft Web Studio offers different runtime editions suitable for technical and commercial constraints on each platform: InduSoft Web Studio (full) runtime, EmbeddedView runtime, CEView, and IoTView runtime.

## Runtime Editions - Platforms and System Requirements

| | | Runtime Editions (8.0) | | | |
|---|---|---|---|---|---|
| | | **Full Runtime** | **EmbeddedView** | **CEView** | **IoTView [2]** |
| **Operating System** | Windows Server 2016 | Supported | NOT Supported | NOT Supported | NOT Supported |
| | Windows Server 2012 | Supported | NOT Supported | NOT Supported | NOT Supported |
| | Windows Server 2008 | Supported | NOT Supported | NOT Supported | NOT Supported |
| | Windows 10 | Supported (8.0) | NOT Supported | NOT Supported | NOT Supported |
| | Windows 8 | Supported | NOT Supported | NOT Supported | NOT Supported |
| | Windows 7 | Supported | NOT Supported | NOT Supported | NOT Supported |
| | Windows 10 IoT Enterprise | Supported | Supported | NOT Supported | NOT Supported |
| | Windows 7 Embedded Standard | Supported | Supported | NOT Supported | NOT Supported |
| | Windows 8 Embedded Standard | Supported | Supported | NOT Supported | NOT Supported |
| | Windows Embedded Compact 5 [1] | NOT Supported | NOT Supported | Supported | NOT Supported |
| | Windows Embedded Compact 6 [1] | NOT Supported | NOT Supported | Supported | NOT Supported |
| | Windows Embedded Compact 7 [1] | NOT Supported | NOT Supported | Supported | NOT Supported |
| | Windows Embedded Compact 2013 [1] | NOT Supported | NOT Supported | Supported | NOT Supported |
| | Linux | NOT Supported | NOT Supported | NOT Supported | Supported (8.0) |
| | VxWorks | NOT Supported | NOT Supported | NOT Supported | Supported (8.0) |
| **Typical System Requirements** | Minimum storage memory needed | 2GB | 128MB | 64MB | 64MB |
| | Minimum RAM memory needed | 1GB | 64MB | 32MB | 32MB |

[1] "Windows Embedded Compact" was formerly known as "Windows CE".

[2] IoTView's source-code is platform-agnostic. Therefore, it could be compiled to different operating systems, as long as the target platform compiler is available.

| Feature | | Runtime Editions for Windows | | |
|---|---|---|---|---|
| | | Full Runtime | EmbeddedView / CEView | IoTView |
| **General** | Run applications designed in InduSoft Web Studio IDE | Supported | Supported | Supported (8.0) |
| | Run as a Service | Supported | NOT supported | NOT supported |
| | Email (SMTP Client) | Supported | Supported with limitations (1) | NOT supported |
| | Create tags programatically during the runtime | Supported | NOT supported | NOT supported |
| | Create screens programatically 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 | NOT supported |
| **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 | NOT supported |
| | Translation | Supported | Supported | NOT supported |
| **Tasks** | Alarms | Supported | Supported | Supported with limitations (8.0) (17) |
| | Trend | Supported | Supported | Supported with limitations (8.0) (18) |
| | 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 | NOT supported |
| | Database/ERP | Supported | Supported | Supported with limitations (8.0+SP1)(25) |
| **Communication** | Drivers | Supported | Supported with limitations (5) | Supported with limitations (8.0) (5) |
| | OPC DA 2.5 Client | Supported | Supported with limitations (4) | NOT supported |
| | OPC DA 2.5 Server | Supported | Supported with limitations (4) | NOT supported |
| | OPC XML/DA Client | Supported | NOT supported | NOT supported |
| | OPC UA Client | Supported | Supported with limitations (1) | NOT supported |
| | OPC .NET Client | Supported | NOT supported | NOT supported |
| | TCP/IP Client | Supported | Supported | NOT supported |
| | TCP/IP Server | Supported | Supported | NOT supported |
| | Mobile Access Runtime | Supported | Supported | Supported (8.0) |
| | DDE and NetDDE Client | Supported | NOT supported | NOT supported |
| | DDE and NetDDE Server | Supported | NOT supported | NOT supported |
| | 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 with limitations (8.0) (6) | 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 (v8.0) |
| | Screen Scripts | Supported | Supported | Supported with limitations (8.0) (20) |
| | Shapes | Supported | Supported | Supported (v8.0) |
| | Active Objects | Supported | Supported | Supported with limitations (8.0) (21) |
| | Data Objects (Alarm/Event, Trend, Grid) | Supported | Supported | Supported with limitations (8.0+SP1) (24) |
| | Libraries - Project Symbols | Supported | Supported with limitations (19) | Supported with limitations (8.0) (19) |
| | Libraries - Linked Pictures | Supported | Supported with limitations (9) | Supported (8.0) |
| | Libraries - .NET Controls | Supported | NOT supported | NOT supported |
| | Libraries - ActiveX Controls | Supported | Supported with limitations (22) | 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 (8.0) |
| | 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 (v8.0) |
| | Multi-touch gestures | Supported | Supported with limitations (14) | NOT supported |
| **Licensing** | Number of Tags | 150, 300, 1500, 4000, 16K, 32K, 64K, 512K, or 10M | 150, 300, 1500, or 4000 | 150, 300, 1500, or 4000 |
| | Number of Thin Clients | 0, 1, 2, 4, 8, 16, 32, 64, or 128 | 0, 1, 2, 4, or 8 | 0, 1, 2, 4, or 8 |
| | License Server | Supported | NOT supported | NOT supported |
| | USB Hardkey | Supported | Supported with limitations (15) | NOT supported |

# Feature Comparison:

InduSoft Web Studio is an integrated development environment, which allows you to design, develop, troubleshoot, and maintain HMI/SCADA applications and deploy them into different platforms (operating systems). Even though the development environment (and the application) is the same for any platform, InduSoft offers different runtime editions suitable for technical and commercial constraints on each platform: InduSoft Web Studio (full) runtime, EmbeddedView runtime, and CEView runtime. This table focus only on the main differences between the runtime editions supported by InduSoft Web Studio. The vast majority of features from InduSoft Web Studio are supported by all runtime editions for Windows, so they are not illustrated in this table.

(1) Encryption supported by InduSoft Web Studio and EmbeddedView, but not supported by CEView.

(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) Multi-thread not supported (single thread supported). Moreover, 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) and at the InduSoft web site (www.InduSoft.com > Products and Downloads > Drivers). Moreover, IoTView supports Main Driver Sheets only.

(6) Studio Mobile Access Tabular supported for both EmbeddedView and CEView. Studio Mobile Access (HTML5) supported by EmbeddedView, but not by CEView.

(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 CEView 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) CEView 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. The Hardkey from Sentinel is not supported by EmbeddedView/CEView.

(16) Local Mode only. Distributed and LDAP modes not supported.

(17) Alarm Online only. Alarm History not supported.

(18) History Format Database only. History Format Proprietary and Historian not supported.

(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) Pushbutton, ListBox, and Smart Message not supported. Minor limitations in other objects (e.g.: Push-like not supported for Radio Button and Check Box).

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

(23) Built-in language, Open/Close Screen, and Set/Reset/Toggle Tag supported. VBScript not supported.

(24) Trend Control Object Supported on SMA with Tagname Data source only, see Tech Ref for supported features.

(25) Sub-set of DB/ERP functions supported. DB/ERP Worksheet not supported. See Tech Ref for details.