

New in this Version

Over the course of development, naturally there are changes and additions to the Ignition software. This page highlights any new functionality or modified behavior, but is not meant as a complete resource for new features. You can find more about these items by following the links on this page.

Upgrading Ignition

Upgrading Ignition is very easy, but there are a few things we recommend to ensure everything goes perfectly.

See the [Installing and Upgrading](#) page for a complete guide.

New Perspective Mobile App Features

This section is devoted to new features introduced to the [Ignition Perspective App](#). New versions of the app are released separately from new Ignition versions, so notable changes to the app will be listed in this section.

Mobile App Changelog

Updates for version 0.98

- Added support for scanning inverse barcodes. Corresponds with Ignition 8.1.3, which added an option to the [Scan Barcode Action](#) that can limit light or dark background.
- In a Perspective [Barcode Scanned](#) event script, the scanned barcode type is now returned via the `barcodeType` property.

Updates for version 0.97.2

- Fixed an issue with the app's login screen when using OpenId Connect or SAML authorization on Android.

Updates for version 0.96:

- The app can now be [managed remotely](#) via Enterprise Mobile Management services.

New Ignition Features

This section is devoted to new features introduced to Ignition. Any pages in this user manual that contain features that were added will be accompanied by a display like this:

This feature is new in Ignition version **8.1.X**
[Click here](#) to check out the other new features

New in 8.1.4

Perspective

- View parameters available from [Embedded Views](#) now appear on a dropdown list of parameters in the Property Editor. Template instance parameters can now be more easily synced within views.
- The [Embedded View](#), [Carousel](#), [Flex Repeater](#), [Accordion](#), [View Canvas](#), and [Dashboard](#) components now have new options for view parameters available.
- The [Dashboard](#) component has a new `pack` property for enabling or disabling widget packing.
- The [Perspective - View Object](#) has a new `inputBehavior` property, which controls whether object-typed input parameters are merged with their defaults or replace their defaults.
- Added new selection property to the [Alarm Status Table](#), called `selection`, which allows the user to configure how many table rows can be selected at a time on both the active and shelved tabs of the alarms displayed on the table.
- The [Radio Group](#) component has a new property, `radioStyle`, enabling CSS styling including padding, and margins of radios within component.
- The [One-Shot Button](#) component now accepts numeric, boolean, string, or null for the value and `setValue` properties.

On this page...

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What's New in 8.1

[Watch the Video](#)

- All CSS properties are now available on [Styles](#) properties on components.
- Added support for the On-screen Keyboard in [Perspective Workstation](#).

Scripting Functions

- Added [system.perspective.getProjectInfo](#) scripting method. This is also available on the [session object](#).

Expression Functions

- Added [typeOf](#) expression function which Returns the simple name of the Java type.

Tag Providers

- [Remote Tag Providers](#) now support annotations.
- [Tag Providers](#) now have an Allow Back-fill Data option where data will be stored to history, but will not be used for alarms, scripts, or subscriptions.

Property Change Scripts

- A missedEvents flag has been added to [Perspective Property Change Scripts](#).

BACnet

- The [BACnet](#) driver now supports reading and writing null values.
- Configuring a [BACnet Remote Device](#) now includes a discovery timeout option, where you can customize the length of time initializing the remote device.

Ignition Maker Edition

- As of 8.1.4, it is now possible to create remote Tag Providers and Tag history providers when the provider source is a [Maker Gateway](#).

Enterprise Administration Management (EAM)

- Added a option in [Agent Tasks](#) for Send Project, that if selected, forces the task to combine project resources from all inherited projects,

New in 8.1.3

Perspective

- The [Scan Barcode](#) action now has an option for specifying the background color of a barcode.
- The [Popup](#) Action now has an option to always open within the bounds of the viewport.
- The [Alarm Journal Table](#) and [Alarm Status Table](#) now support [Localization](#).

Scripting Functions

- [system.perspective.openPopup](#) and [system.perspective.togglePopup](#) now have a viewportBound parameter that enables popups to be opened only within the bounds of the viewport.
- [system.perspective.isAuthorized](#) has a new parameter, sessionID.

Designer Find/Replace Window

- [WebDev Resources](#) have been added as a search option.

Tag Properties Table

- The Tag Properties table has a new [property](#), Datasource, which defines whether the query is executing a database read or a database write. Important for determining the **value** behavior of the Tag.

Gateway Network

- A new [Gateway Network](#) general setting was added: Websocket Idle Timeout.

Allen-Bradley Logix Driver

- The [Logix driver](#) now has an "Identity Request Frequency" advanced setting that controls the CIP Identity Object read request speed.

Database Audit Log

- Added a Pruning Enabled setting to [Database audit logs](#).

New in 8.1.2

Perspective

- The [Pie Chart](#) component now has settings for a legend and for putting labels inside the pie sections.
- The [Power Chart](#) now has configuration settings that show and hide various pieces of the component's interface, as well as export settings that can determine the date and time format when exporting to CSV.
- Added a "Binding" section to the [right-click menu](#) on component properties. The new section contains items for binding manipulation, such as disabling or removing bindings without needing to open the binding window.
- The [Perspective - Table](#) now offers settings to display a message and an icon if the data source for the table is empty or if the filter for a table returns no data.
- The [Numeric Entry Field](#) now has a containerStyle property.
- Changing the [locale of a Perspective Session](#) can also modify number formatting behavior (e.g., on the [Numeric Entry Field](#) component).
- Project Inheritance is now shown on the [Project Properties](#) screen.
- The `props.interaction.xTrace.infoBox.dateFormat` property on the [Power Chart](#) component can now be set to an empty string, which will effectively disable the built-in `dateFormat` and `timeFormat` properties.
- Many Perspective components now have multiple configurations, called variants, based on options a user might commonly use See [Working with Perspective Components](#).

Variants have been added to the following components in 8.1.2:

- [Perspective - Gauge](#)
- [Perspective - Pie Chart](#)
- [Perspective - Simple Gauge](#)
- [Perspective - Time Series Chart](#)
- [Perspective - Coordinate Container](#)
- [Perspective - Flex Container](#)
- [Perspective - Tab Container](#)
- [Perspective - Barcode](#)
- [Perspective - LED Display](#)
- [Perspective - Flex Repeater](#)
- [Perspective - Button](#)
- [Perspective - Checkbox](#)
- [Perspective - DateTime Input](#)
- [Perspective - DateTime Picker](#)
- [Perspective - Dropdown](#)
- [Perspective - Multi-State Button](#)
- [Perspective - Numeric Entry Field](#)
- [Perspective - One-Shot Button](#)
- [Perspective - Radio Group](#)
- [Perspective - Toggle Switch](#)

Client Permissions on system.db.execSProcCall

The Client Permission Restrictions for the [system.db.execSProcCall](#) function have been changed, and can now be restricted by the Legacy Database Access Permission Type.

Commissioning

Updated the user manual to include preconfiguring a Gateway for [deploying Ignition to another system](#).

Omron FINS - Support XML Tag Import

The [Omron FINS Driver](#) now supports XML Tag imports from programs such as CX Programmer.

Tag Quality

Release 8.1.2 includes a new [Tag quality code](#), Good_Overload.

Tag Editing Permissions on Edge

Edge Gateways can now restrict Tag editing permissions.

Tag History Query Syntax System Flag

Added a new [system flag](#) that dictates the syntax used by Tag Historian queries.

Alarm Notification Profiles

The "Throttled Message" setting for Twilio [Notification Blocks](#) was updated to the more standard term, "Consolidated Message."

Tag Creator

Added a right-click menu to the [Tag Creator's For Provider](#) area.

MariaDB Driver

Updated the MariaDB JDBC driver that comes bundled with Ignition installation to version 2.6.1. This allows new installation to connect to [MySQL 8](#) databases using a Maria DB connection type.

TCP and UDP Drivers

Added MessageBytes and WritableBytes (TCP driver only) tags to the [UDP and TCP Drivers](#), allowing the drivers to receive messages as binary data instead of strings.

Sequential Function Charts (SFC)

As of release 8.1.2 you can include a relative path in an [Enclosing Step](#).

New in 8.1.1

Designer Find/Replace Window

In 8.1.1, the [Find/Replace](#) tool received several improvements.

- Named Queries were added as a search option.
- Wildcard characters (* and ?) can be used to search across multiple lines of text.
- A **Select All** check box was added, allowing you to quickly check or uncheck all options in the window.

Perspective

- If a [page configuration](#) is using a view that does not exist, a **Warning**  icon is now displayed.
- Expression Structure Bindings now return direct values instead of qualified value objects. This impacts Transforms as you no longer need to append ".value" to access the value passed to the binding.

Gateway Network - Commissioning

[Commissioning](#) can now set the Gateway Network port in addition to the HTTP and HTTPS port.

Gateway Network - Security Settings

Added a User Inactivity Timeout setting under the [Gateway General Security](#) section which can be set to the number of minutes that must elapse before expiring a user's Gateway Web interface session to inactivity.

Device Connections

Added a manual date/time offset setting for the [Omron NJ driver](#).

Audit Profiles

A Retention field has been added to the Gateway [Audit Profile](#) settings. The value in the field indicates how many days you want audit records kept.

Scripting

- For [system.opc.browseServer](#), added a `getDataTypes()` method to OPCBrowseElement and PYOPCTag objects.
- Added a new [system.roster.deleteRoster](#) system function that can delete a roster.

Identity Providers

As of release 8.1.1, Ignition's 2.0 SP implementation can handle both line-wrapped and non-line-wrapped Base64-encoded [SAML responses](#).

User Sources

[Active Directory](#), [AD Database Hybrid](#), and [AD Internal Hybrid](#) user sources gained a new Referral property, allowing the user sources to determine what to do when a referral from Active Directory is encountered.

Tag Browser

Added the ability to browse OPC devices from within the Tag Editor in order to add OPC nodes to [UDT definitions](#).

New in 8.1.0

Perspective

Component Updates

- Added [Power Chart](#) component which collects and displays data based on pens that have been configured on the chart. It is fully customizable in its appearance, from labels, colors, line widths, legend, scroll bars, text styles, and more.
- Added a [Symbols palette](#) and new components: [Motor](#), [Valve](#), [Sensor](#), [Pump](#), and [Vessel](#).
- Added [Wrap in Container](#) option on the Component right-click menu, enabling existing components to be "wrapped" into a container on the same view.
- The "autoplay" property on the [Perspective Video Player](#) component will now mute the video on initial playback on all environments. Earlier versions of the component only muted autoplay on iOS environments.
- Added the new 'filterAlarm' extension function to the [Alarm Journal Table](#).

Perspective Workstation

- [Perspective Workstation](#) is a single application that acts as both a launcher, and desktop "wrapper" for Perspective sessions. Users will be able to configure multiple applications via a home screen, and launch into one of those applications. Perspective Workstation has built-in features to run in Windowed mode and full screen Kiosk mode eliminating any distractions from the underlying operating system.

Session Events

- Added a new Session Event: [Page Startup](#).

Vision

- Added new scripting function `.setSelectedValues (valueList)` to the [Vision - List](#) component.
- Added a new Welcome screen to each of the Designer Interfaces: [Vision Designer Interface](#), [Alarm Pipeline Designer Interface](#), [Transaction Groups](#), [Named Queries](#), [Scripting](#), [SFC Designer Interface](#), [WebDev](#), and [Report Designer Interface](#).

Device Connections

- Added a new property to the [Modbus TCP Device](#) called Concurrent Requests which is the number of requests that Ignition will send to the device at the same time.

Installation

- Introduced the [Quick Start Configuration](#), which can be enabled after installation. When enabled, several configurations and resources will be created in the new system automatically.

OPC UA Clients

- A new advanced option, Certificate Validation Enabled, allows you to disable validation of server certificates if needed for troubleshooting. See [OPC UA Client Connection Settings](#).
- A new Certificates page on the Gateway enables you to [download](#) or [regenerate](#) certificates currently running on the Gateway.

Scripting

- For [system.util.getGlobals](#), the globals dictionary will now persist across the lifetime of the JVM, and it's now accessible at `system.util.globals`.
- Added `intervalSeconds` and `rangeSeconds` parameters to [system.tag.queryTagHistory](#)
- Added new functions that can interact with the Tag Historian's new Annotation system: [system.tag.deleteAnnotations](#), [system.tag.queryAnnotations](#), and [system.tag.storeAnnotations](#).

Security

- The Vision module now has the option to use Federated [Identity Providers \(IdP \)](#), allowing users to authenticate against a trusted third party.
- Security settings have been consolidated onto a new Gateway page, [Gateway General Security Settings](#).
- The Ignition Identity Provider now has options for setting a timeout for Session Inactivity, an expiration time for Sessions, and a Remember Me expiration, which is the number of hours a user will be remembered regardless of if they close their browser or Gateway. See [Configuring Identity Providers](#).

Tag Historian

- Added a new [Historian Simulator](#) that can easily generate simulated historical records without the need for an external database.
- Added a new [DB Table Historian Provider](#) that can expose wide database tables to the Tag Historian, allowing tag history queries to retrieve records from tables generated by external systems.

Tags System

- The [Tag Browser](#) has been updated with a new design for ease of use. Tags and [UDT Definitions](#) now have their own tabs. A [Tag Provider Selector](#) enables you to view Tags for a specific Tag provider.
- Tags with a Document data type can now be bound to from components, which will provide a JSON string. In these cases you can write back to the elements if the binding is set to bi-directional. See the [It's also possible to address certain elements within the document when using a certain syntax](#). See the [Tag Paths](#) page.
- [Tag Browser](#) Trait icons for various configurations (i.e., Scale Mode, Custom Security, Scripts, Alarms, or History) appear to the right of the Tag name.
- [User Defined Types - UDTs](#) can be color coded, which applies a color to the Root Node.
- The [Tag Creator](#) allows you to browse a connected device to add [OPC](#) Tags and create any type of standard Tag. You can even edit your Tags individually or multiple Tags all at once.
- Added [UDT Inheritance](#) and type hierarchy icons that display UDT types, instances, and properties that override the parent properties.

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