Introducing Ignition

What Is Ignition?

Ignition SCADA by Inductive Automation® combines an unlimited licensing model, with instant web-based deployment, and the industry-leading toolset for supervisory control and data acquisition (SCADA) — all on one open and scalable universal platform. Ignition is The New SCADA because it solves all the major pain points of old SCADA . Ignition empowers your business to easily control your processes, and track, display, and analyze all your data, without limits. Ignition is designed from the ground up to be approachable and easy to get started with while it is flexible and capable of scaling up to the largest projects. Ignition is unlimited, so for the low cost of one server license you can seamlessly connect all your data, design any kind of industrial application with ease, and instantly web-deploy unlimited clients to anyone, anywhere — all from one universal platform for industrial automation.

Ignition has a core focused on everything you need and nothing that you don't.

INDUCTIVE UNIVERSITY

What is Ignition?

Watch the Video

Server Based	One computer controls everything in Ignition. That means you only install in one place and connect everything else to that server. No separate install for the Designer. You can have as many Clients (runtimes) and Designers as you want, no installation necessary.
Simple Licensing	One license for the server gives you unlimited access. Unlimited Clients, unlimited Tags, unlimited projects, and more. With unlimited run-time clients at no additional cost, you can get your important data and analytics to your entire team, across your whole company. Ignition allows you to create and use as many tags as you need for devices, OPC servers, and anything else, without limits.
Web-based Deployment	Ignition is installed, deployed, and managed using standard web technologies. Connect and change settings, update projects, create new Tags, and more, all from any computer on the network.
Web-launched Designer and Clients	Ignition's Designer tool and runtime clients and sessions are launched using the web. Run a large amount of clients across your enterprise at the same time. In initial benchmark testing, Ignition Perspective can simultaneously launch 200 clients with ease.
Built-in Security	Security is built in to every aspect of Ignition. You can manage users, edit screen permissions down to the individual Tag or component level, and even secure certain assets in your projects.
Scalable Modular Architecture	Create a scalable and centrally managed SCADA system using Ignition's web-based server architecture. Do more with unlimited connections to PLCs, databases, web-based deployment, and web-launched clients. Learn more about Ignition's System Architectures. Projects can be made small and expanded out indefinitely as your business grows, or you can have smaller installations connected to and interacting with other larger systems.
Cross Platform	Ignition works with any major operating system, even iOS and Android. Ignition is built on Java, which means you can install and run it on any modern operating system. Ignition will run on Windows, Mac OS X, and Linux. Backups of your system are even cross platform, you can load a backup from any system.

New in This Release

- Ignition 8 features a new poll-free protocol that updates tag data instantly for both Vision and Perspective clients. As a result, Vision clients in Ignition 8 are drastically faster while using dramatically less CPU power.
- For the new Vision Module, we've created new native Vision client launchers for Windows, Mac, and Linux, so you can easily launch Vision clients on any major operating system without needing to install and update Java.
- Ignition Vision is perfect for dedicated plant-floor displays and HMIs, while Ignition Perspective is perfect for mobile-first industrial applications. You can use them on their own or together to form the industry's most powerful, cutting-edge visualization system.
- Vision client screens will look even better in Ignition 8, thanks to a new design and new support for high-resolution displays.
- Fonts have also been improved with more choices and better rendering so your screens look sharper and more stylish than ever.
- Ignition 8 has an improved concurrent editing system which allows multiple people to work on the same project at the same time without locking each other out of resources. This will help your team work faster and more collaboratively.
- In Ignition Perspective, you can use powerful and flexible CSS3 styles to change the appearance and position of anything in your application. By combining styles into themes, you'll be able to apply and edit styles across multiple applications in an instant.
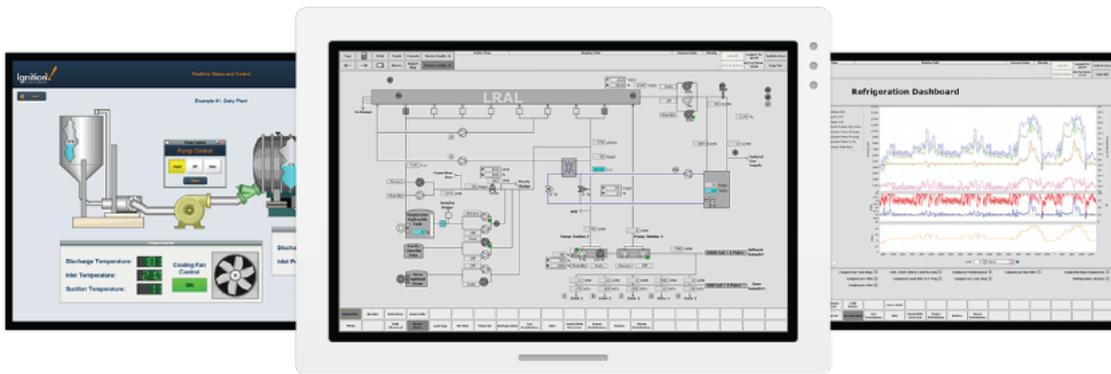
What Can it Do?

Because of its modular nature, Ignition can do a lot or a little and be completely customized to your needs. A lot of the basic functionality is shared between modules and stored in the Gateway to make everything as smooth and seamless as possible. Some of these basics are database connections, device connections, Tags, Security profiles, Alarming, and more. Because these are all shared resources, you don't have to worry about managing multiple connections for the different modules in Ignition: it just works. You can build database applications using Ignition. You can create POS, CRM, and inventory tracking systems. You can bring in data from any SQL database in your plant and interact with other existing ERP and Access systems

Modules provide the core functionality for Ignition where the Gateway provides the backbone of shared resources. There are no limitations to Ignition, here are **just a few** of the things Ignition can do for you:
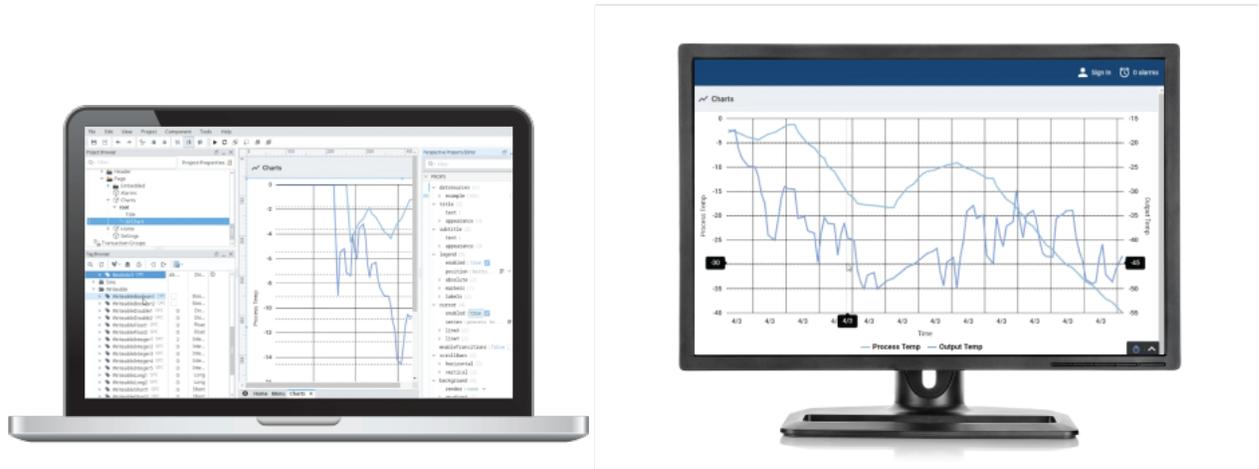
Web-Based HMI and SCADA Applications Deployment

Using web technologies, you can access PLCs and connect to SQL databases on any platform. Ignition provides the common HMI/SCADA capabilities, but in an easier and more efficient way. Create runtime clients and sessions that show current or past data, interact with your other systems and devices, create displays and controls for anything wired into your system. See and manage your entire system from one place.
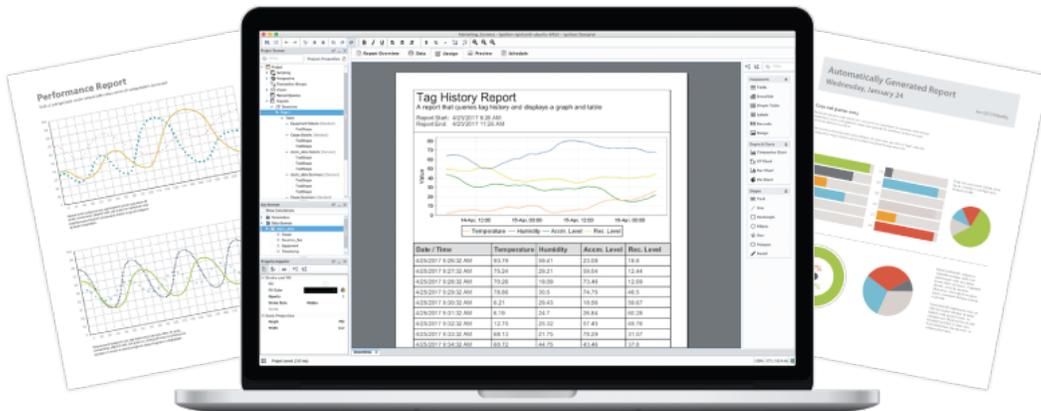

High Performance Historian

You can use any SQL database with Ignition's high-performance historian. It's simple to set up and Ignition will monitor and control the data for you. The Historian includes partitioning and uses compression algorithms for fast data storage and retrieval.
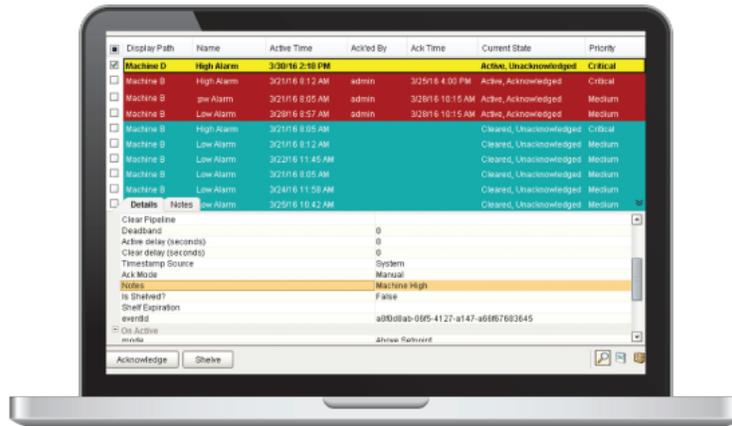

Reporting Engine

You can create dynamic PDF reports that users can see and change with on the fly. Give users the ability to change date ranges or select past reports without any changes to the system. Create schedules to email or save compliance reports when you need them.

Alarming

You can use Ignition's state-of-the-art alarming engine to create alarms for any condition you can imagine. Alarms can be recorded, acknowledged, or dealt with by sending out notifications. Email, SMS and voice messages can be sent to individuals or whole lists of users based on any logic you need.

Communications Hub

You can use Ignition as an effective communication hub in your network. You can use some or all of these features to make Ignition move data back and forth throughout your facility. Connect everything together with:

- OPC-based and communicates with virtually any OPC server.
- SQL-based (JDBC) and connects to any number of Databases.
- Built-in PLC drivers and connects to any PLC (Allen-Bradley, Siemens, Modbus, etc.) through OPC.
- Supports any web services and launches anywhere.
- Connects with other enterprise systems (ERP).
- Connects to devices such as barcode scanners, scales, and sensors.
- Connects to any mobile device such as wireless smartphones and tablets.
- Connects to any touch panel screen.

Touch Panels
Connect to any touch panel screen

Databases
Connect to any number of databases

PCs
Use any PC regardless of operating system

Mobile Devices
Access data via wireless smartphones and tablets

PLCs
Connect to any PLC through OPC

LIMs
Connect to virtually any device, such as barcode scanners, scales, sensors, etc.

ERP Systems
Communicate with enterprise resource planning systems

Web Services
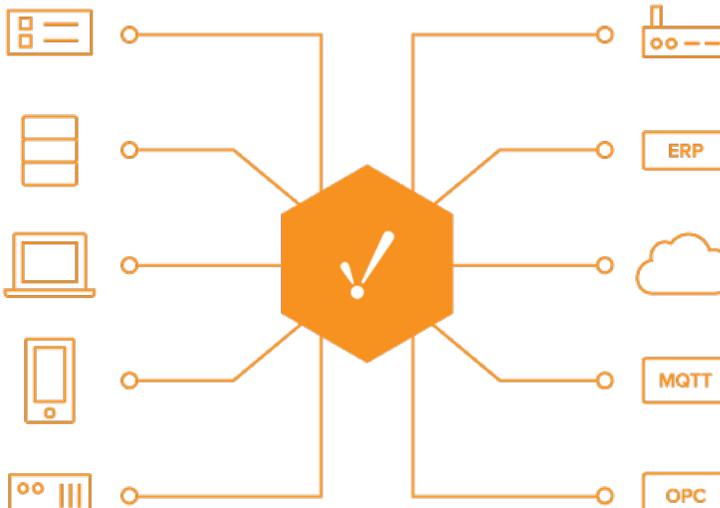Connect to any web service including REST and SOAP
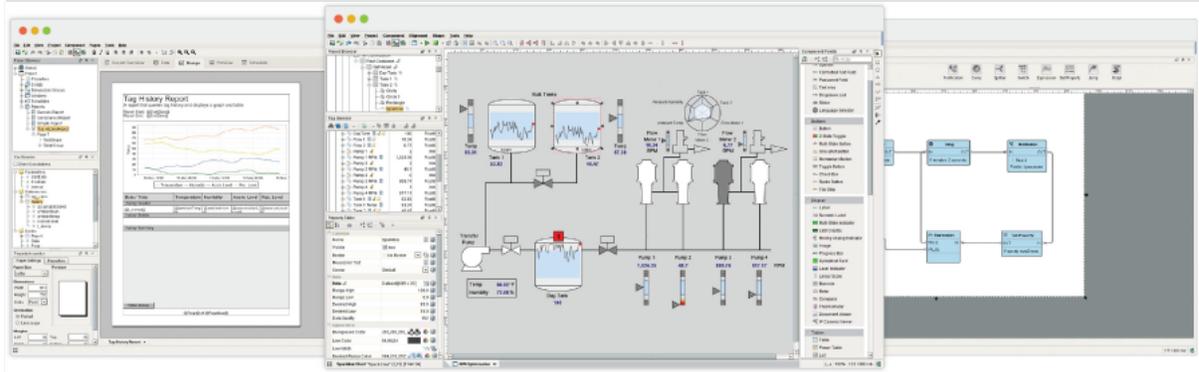
MQTT
Connect intelligent devices to infrastructure

OPC UA, OPC DA, OPC Tunneler
Access historical data from databases, devices, and applications

Mix and Match

You can mix and match all of these features and more in any way you want!

Understanding Ignition's Flow

Ignition is simple to set up and use, unlike anything else you've encountered in the HMI/SCADA world before. Getting installed and running is easy, and once you have your project set up it's extremely simple to start using. After installation, setting up and using a project follows this simple set of steps:

- **Launch the Gateway Webpage**
  The Gateway Webpage is where all of your information is stored, and where all of the general configuration happens. Here you can set up your Device connections, your Database Connections, alter your security, make backups, set up redundancy, and much more.
- **Launch the Designer**
  Once your connections are in place, you can start using them to create a project. Opening a Designer is as simple as clicking a link in the Gateway. No installation is necessary, and you can even launch the Designer from any other computer on the network. Add Tags, query databases, show status, history trends, alarms, and more in your project.
- **Save your project**
  When you save, Ignition is sending all your data and all your changes back to the Gateway. Everything is centrally stored in the Gateway so you never have to worry about managing several versions or trying to combine many changes into one. You can even launch many Designers concurrently to allow multiple people to work on the same project at the same time. Projects aren't limited in scope, and you can create anything you can think of. HMI, SCADA, Reporting, Historian, Alarming, and much more.
- **Launch Clients**
  Launch one Client or 20! Clients launch the same way as the Designer: simply click a link in the Gateway, no install is necessary. All of your clients talk directly to the Gateway to get new information on the fly, so there's no need to worry about them ever getting out of sync or loading changes individually to Clients.

Ignition's modular platform can support requirements of any type by selecting the modules for your needs and building processes suited for your business. Just create your project, it's all managed in one central platform and can be launched anywhere you want.

Launch Gateway
Webpage

Web-Launched
Designer

Save
Project

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