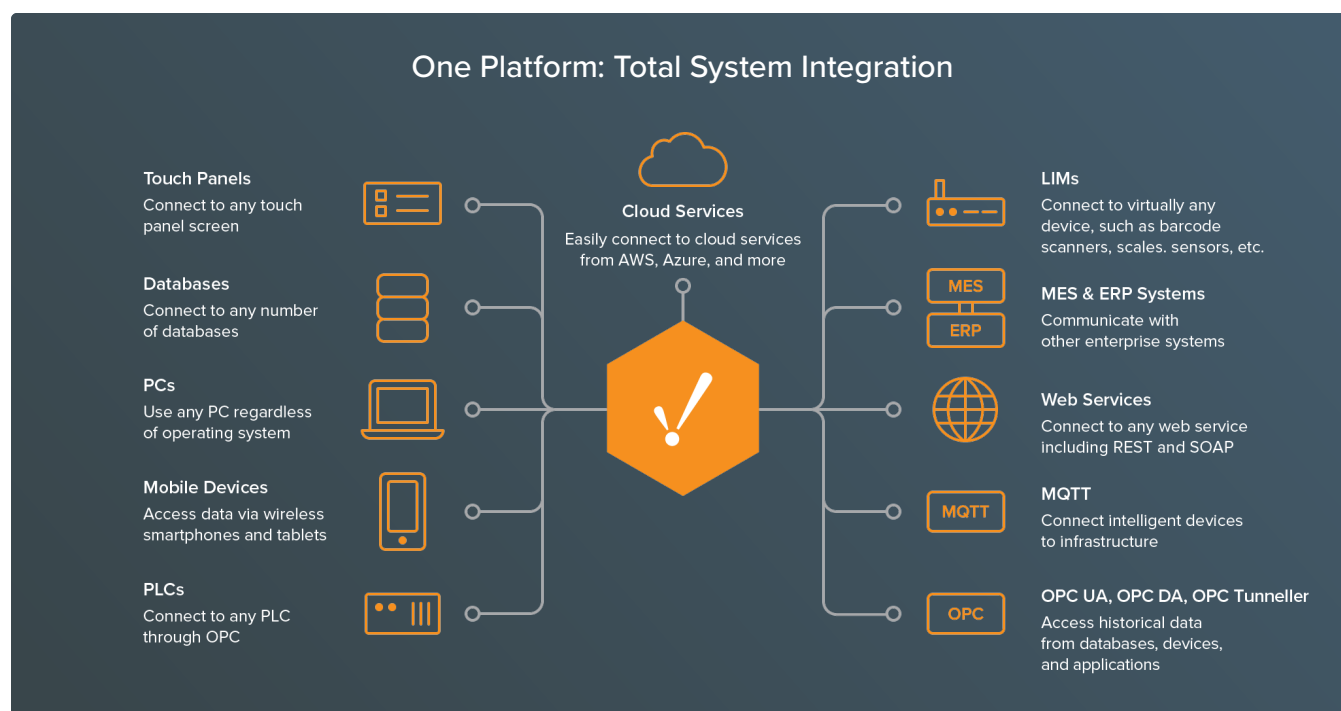# Ignition Platform

Product Data Sheet

The Powerful and Scalable Foundation for Total System Integration

The Ignition platform allows you to connect to any major database, PLC, field device, and line-of-business application, and rapidly develop any type of industrial automation system, scaling your solution without limits. You can instantly deploy client screens from a central server at a single site, multiple sites, or in the cloud. Ignition is also a modular platform, allowing you to leverage fully integrated modules to build any kind of application for your specific needs. Built on trusted, open standard technologies, the Ignition platform provides a strong and secure foundation for any SCADA, IIoT, and MES solution.

Features

One Platform: Total System Integration

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

Cloud Services
Easily connect to cloud services from AWS, Azure, and more

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

MES & ERP Systems
Communicate with other enterprise systems

Web Services
Connect to any web service including REST and SOAP

MQTT
Connect intelligent devices to infrastructure

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

One Central Communication Hub for Your Plant Floor and Beyond

The Ignition platform seamlessly integrates your plant floor operations and enterprise systems together. Ignition has the ability to connect to any SQL database and its OPC UA server, provided by the included OPC UA module, along with its set of powerful core drivers (Modbus, UDP & TCP, BACnet, Allen-Bradley, Siemens, DNP3, and Omron), enable you to connect to most major PLCs, industrial devices, and even third-party OPC UA servers. No matter what brand, model, or platform, Ignition talks to your plant-floor equipment just as naturally as it talks to SQL databases, bridging the gap between production and IT.

Deploy Without Limits

By adding the Vision or Perspective modules to the Ignition Platform, you can instantly web-launch an unlimited number of zero-install, full runtime clients on virtually any device from a central server. With the Ignition Perspective module you can create beautiful, mobile-responsive industrial applications that run natively on iOS and Android, so you can see and control your processes from anywhere. This server-centric web-deployment model is flexible and scalable enough for architectures of any type or size, and because Ignition is fully cross-platform and runs on Windows, Linux, and Mac OS X, you have virtually unlimited deployment options on physical hardware, virtual environments, and managed services.

inductive automation

inductiveautomation.com   1-800-266-7798

Ignition Software Stack

USER-CREATED APPLICATIONS

SCADA · HMI · Alarming · Reporting · Mobile | IIoT | MES

INDUCTIVE AUTOMATION MODULES

VISUALIZATION
- Ignition Perspective
- Vision
- Web Browser
- Reporting

DATA & LOGIC
- SQL Bridge
- Tag Historian
- Sequential Function Charts
- Web Development

ALARM & NOTIFICATION
- Alarm Notification
- Voice Notification
- SMS Notification
- Twilio Notification

CONNECTIVITY & ENTERPRISE
- Enterprise Administration
- OPC UA *(Included in the Platform)*
- OPC COM

IIOT PARTNER MODULES — Cirrus Link

MQTT
- MQTT Engine
- MQTT Distributor
- MQTT Transmission
- MQTT Recorder

CONNECTIVITY
- AWS, Azure, Google Cloud & IBM Injectors
- EFM Export

DRIVERS
- EFM Emerson ROC
- Opto 22 groov Epic SNAP PAC
- ABB EFM TotalFlow

MES PARTNER MODULES — sepasoft

MES
- OEE Downtime
- Track & Trace
- SPC
- Recipe & Changeover
- MES Enterprise

CONNECTIVITY
- Sepasoft Business Connector
- Interface for SAP ERP
- Web Services
- Instrument Interface
- Barcode Scanner

PLATFORM

CONNECTIONS
- Tag System
- Database Connectivity
- OPC UA Connectivity
- OPC UA Server

CORE DRIVERS
- Modbus Driver
- UDP and TCP Driver
- BACnet Driver
- Siemens Driver Suite
- Allen-Bradley Driver Suite
- DNP3 Driver
- Omron Driver
- IEC 61850 MMS Client Driver

SECURITY
- Authentication / Authorization
- ACLs - Access Control Lists
- Encryption

DEVELOPMENT
- Integrated Development Environment
- Module API
- Scripting

ENTERPRISE
- Store and Forward
- Redundancy

SYSTEM MONITORING
- Project Management
- Session Management
- Auditing
- System Status, Diagnostics & Logging
- Alarming Core

OPERATING SYSTEM

Windows · Linux · OS X · iOS · Android

Build Custom Applications with Integrated Modules

The platform comes with the Ignition Designer, the industry's most robust IDE (integrated development environment) for building industrial applications. Ignition has a full line of powerful modules that can be plugged into the platform to instantly add powerful features to rapidly build and deploy custom industrial applications, such as HMI, SCADA, MES, Alarming, mobile-access, and more. The platform also allows for custom scripting in Python so you can add custom actions to components, tags, client and gateway startups, and more.
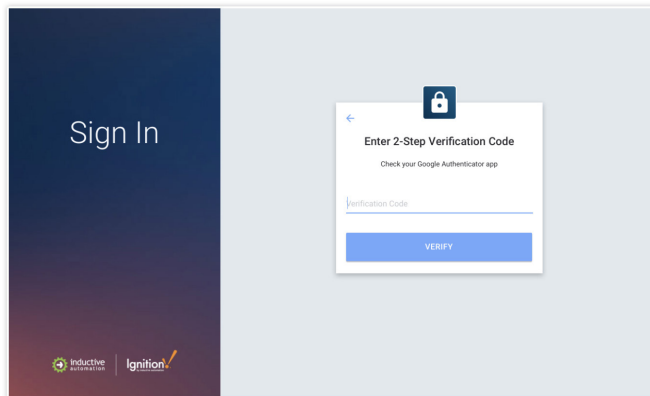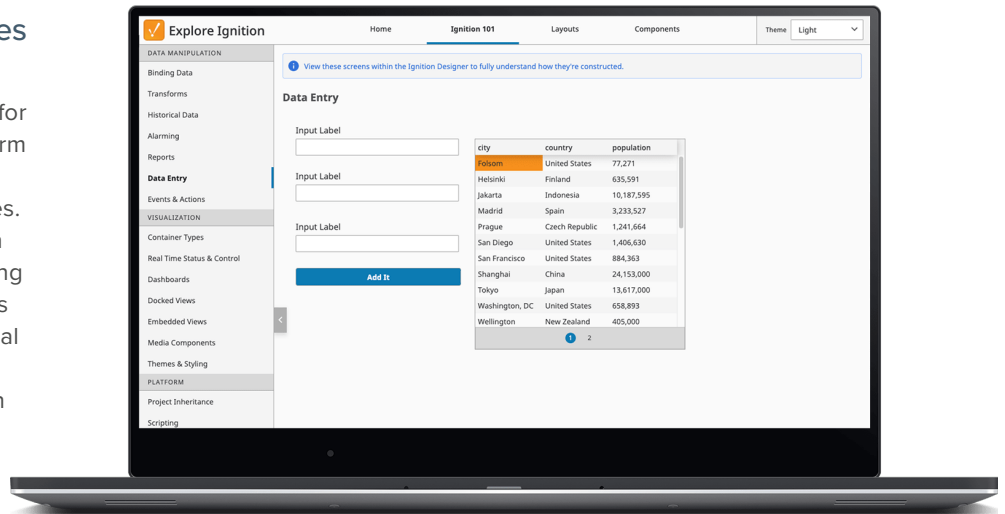
Create Third-Party Modules

Additionally, Ignition's open application programming interface (API) and software development kit (SDK) makes it possible for third parties to develop their modules for the Ignition platform.

Design Without Limits

As your company and operations expand and grow, so does Ignition. The platform gives you unlimited tags and connections, all at no additional cost. Ignition's designer sessions are also unlimited, so you can have your whole team developing projects, even at the same time, without paying for extra designers.

Up and Running Within Minutes

The Ignition platform is stable, secure, and streamlined, designed specifically for industrial applications. It is cross-platform compatible so you can install it on any major operating system in just 3 minutes. Upon logging into the gateway, Ignition even offers a Quick Start option featuring a sample application and configurations to set up device simulators, tags, internal database connection, and historian so you can be up and running with Ignition even faster.

Keeping Your System Secure

Ignition gives you all the tools necessary to make your system as secure as you need it to be. It is built on a solid, unified architecture and proven, industrial-grade security technology. Ignition comes with the ability to safeguard your data with ultra-secure TLS 1.2 and 1.3 encryption protocols and supports modern, web-based authentication strategies such as federated identity, multi-factor authentication (MFA), and single sign-on (SSO). The platform's security levels and Access Control Lists (ACLs) allow you to grant different permissions to users, operators, and officers, and its built-in user auditing gives administrators insight as to what is happening in the system, when and where it is happening, and who is doing what.

Manage Everything in One Place

In the Ignition platform's Gateway web interface, you can view the status and diagnostics on all your sessions and projects. The gateway also allows you to configure projects, connections to devices and databases, and security, as well as launch applications and designers so you can easily manage and keep your eyes on all your operations within the platform.

Supports Open Standard Technologies

The Ignition platform uses trusted information technologies like SQL and Python, as well as open process technologies like OPC UA. Ignition also supports industry standard IIoT technologies like MQTT and Sparkplug.

Redundancy and Strore-and-Forward

Ignition's store-and-forward system provides a reliable way for Ignition to store data to the database. Store-and-forward acts as a buffer zone for queries sent to the database to ensure that data reaches its destination and is stored in an efficient manner. The platform also features redundancy, allowing you to run two copies of your Ignition gateway, so you can always have a backup of your gateway.

Platform Specs and Requirements

Requirements	Supported Operating Systems	Supported Databases	Supported Browsers
Dual-core processor	Windows Server 2016/2019/2022	Microsoft® SQL Server	Chrome
4 GB RAM	Windows 10/11	Oracle	Edge
10 GB free HD space	macOS (10.16+)	MySQL	Firefox
(Requirements vary by usage}	Linux (support for popular distributions, tested with Ubuntu 20.04)	MariaDB	Safari
		PostgreSQL	
		Any database with a JDBC driver	