

How Ignition Eases SCADA Pain Points



Presenters



Kent Melville

*Director of Sales Engineering
Inductive Automation*



Brad Fischer

*Sales Engineer
Inductive Automation*

Agenda

- **Introduction to Ignition**
- **SCADA Pain Points & Solutions**
- **Use Cases**
- **Next Steps**
- **Audience Q&A**



Ignition!

by inductive automation

**The Unlimited Platform for
SCADA and So Much More**

- **Connect, Design, Deploy Without Limits:**
 - One central hub for everything on the plant floor
 - Create any kind of industrial application
 - Web-deploy clients to desktops, industrial displays & mobile devices
- **Unlimited licensing**
- **Industrial-strength security and stability**
- **Trusted by thousands of companies worldwide**

What is a SCADA Pain Point?

What is a SCADA Pain Point?

- A SCADA Pain Point is anything that makes the job of integrating or designing an automation system or application more difficult to build, implement, or update
- Pain points can be small annoyances to large, project-stalling issues
- Automation software providers should work *with* integrators and end users, not against them

What is a SCADA Pain Point?

- Many SCADA pain points have persisted for years
- With the the need for enterprise-wide Digital Transformation and implementation of IIoT-enabled technologies, new Pain Points have arisen
- Most, if not all, pain points can be eased with the correct combination of technology, licensing, and support.



How Pain Points Shaped Ignition

- Inductive Automation's Founder, Steve Hechtman, owned a controls systems integration business for 25 years
- Frustrated with the software available on the market, Steve decided to develop his own based on solving the pain points he experienced as an integrator
- Ignition was made specifically to ease pain points and make integration fast, easy, and affordable



SCADA Pain Points

Hardware/Software Pain Points

1. Software only works with specified Windows versions and service pack levels.
2. Unadaptive and strict hardware requirements



Solutions

1. Cross-platform compatibility, including MacOS, Windows, & Linux
2. Runs on server-class, desktop, laptop, & embedded hardware

SCADA Pain Points

Hardware/Software Pain Points

1. No relational database support
2. Not mobile-responsive; does not support Android or iOS



Solutions

1. Supports most SQL databases
2. Built mobile-first to adapt to changing technology



SCADA Pain Points

Hardware/Software Pain Points

1. Not compatible with the customers' infrastructure
2. Difficulty managing and aligning different programs and platforms in your project



Solutions

1. Ignition connects to any major PLC and database
2. Ignition unifies all functionalities through one server centric platform

SCADA Case Study

Qorvo

- Qorvo provides radio frequency solutions that enable connectivity among numerous technologies.
- Data collection and communication with semiconductor fab equipment was a struggle
- Qorvo had to keep a registry in a spreadsheet, documenting every machine and when it had downtime



SCADA Case Study

Qorvo

- Operators had to go to each machine and select the recipe
- There was no way to collect information from the process
- Results had to manually typed, then manually typed again into a separate website
 - “We were looking for an application we could program ourselves, at low cost — and that we could adapt, because our site is always changing requirements and products.”
- Ignition helped automate analysis, improving production and maintenance

SCADA Pain Points

Installation Pain Points

1. Software is not available for immediate download
2. Installation and activation takes hours, days, or weeks.



Solutions

1. Download the full version anytime for free
2. Ignition installs in 3 minutes. Clients deploy in seconds.

SCADA Pain Points

Installation Pain Points

1. Deploying applications can be tedious and requires clients to go offline
2. Project backups and restorations are time-consuming and frustrating



Solutions

1. Single-click deployment, updates in seconds, clients stay online
2. Back up with one click and restore projects in seconds

SCADA Pain Points

Sierra Nevada Brewing

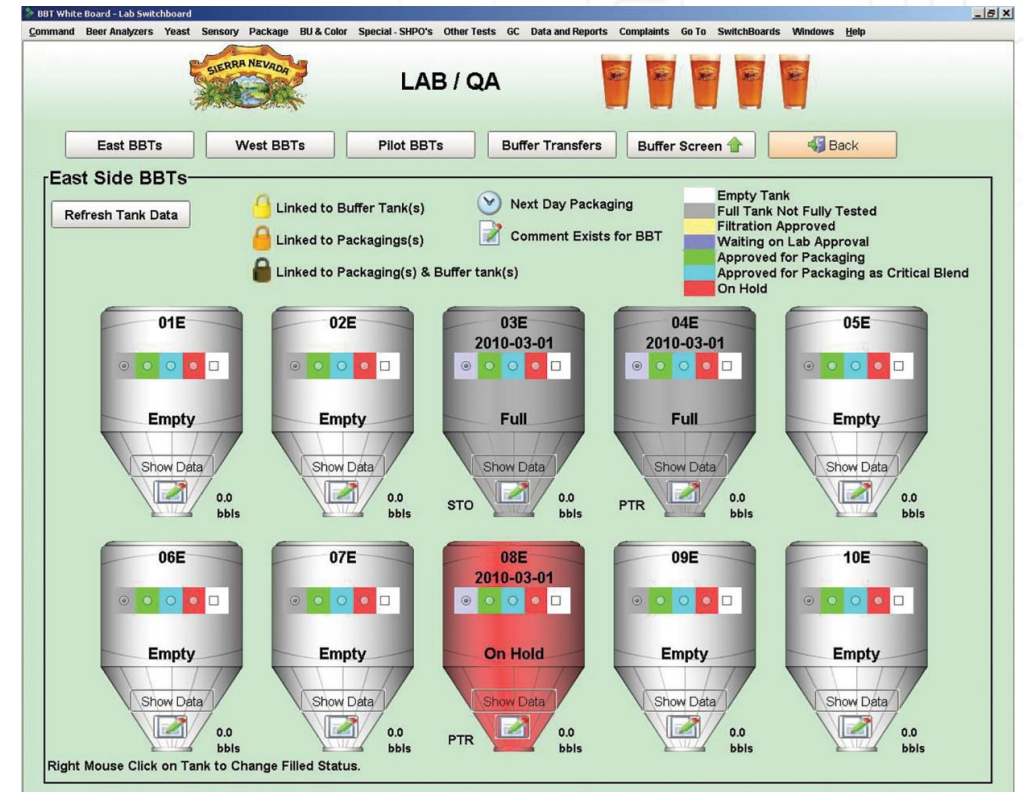
- Sierra Nevada Brewing Co. is the sixth largest brewery in the United States.
- Sierra Nevada was originally hesitant of downtime, but found Ignition's easy and fast installation very user-friendly.
- Ignition is only installed on the server once, which is faster than installing many clients individually.



SCADA Pain Points

Sierra Nevada Brewing

- Sierra Nevada Brewing likes Ignition from a technical perspective because of its easy learning curve.
- Ignition is familiar to people trained in standard office technology like web, Java, SQL databases, and more, which made understanding the software and installation much easier.



SCADA Pain Points

Designer Pain Points

1. Shut down required to add functionality to the SCADA system
2. Designer versions are out of sync with runtime versions
3. Designer does not support concurrent development



Solutions

1. Hot-pluggable modules add functionality without shutting down system
2. Built-in designer means it's always in sync
3. Unlimited designer clients allow multiple developers to work on any projects at the same time

SCADA Pain Points

Designer Pain Points

1. Designers are sold and installed separately, by the seat
2. Need separate designers for SCADA, MES, IIoT, etc.
3. Project is in the demanding final phase, but only one Designer Client is available for your whole team



Solutions

1. Designer, with unlimited seats included out of the box
2. One designer for all applications
3. Unlimited Designer Clients leads to collaborative wins

SCADA Case Study

Veoneer

- Veoneer, a leading supplier for the automotive industry, needed a new SCADA system for its production facility in Goleta, California in 3 months
- New functionality was custom developed, then pushed to all instances globally
 - “Uncover the hidden landmines of complexity.”
- Did not require external systems to handle nuances



SCADA Case Study

Veoneer

- Veoneer's previous system had MES integration and development issues that took up much of its time.
 - "Now we have the freedom to use things in our process that we couldn't use before, because Ignition integrates with it so well."
- Flexware was able to design a complete MES framework from scratch using out-of-box Ignition tools, and added SCADA functionality with action scripting.
- Ignition flexibility helped during the development phase to keep the structure clean and concise.
 - "It really keeps things fresh for the development team, and for the customers."

SCADA Pain Points

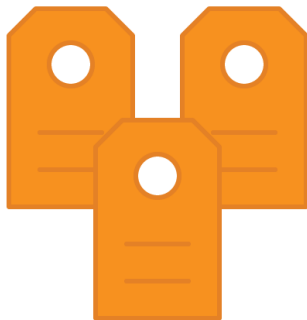
Licensing Pain Points

1. Activation licensing is a difficult and complicated
2. Clients are sold and installed separately, by the seat



Solutions

1. Simple, fast, 24/7/365 activation and transfer
2. Ignition comes with unlimited clients



SCADA Pain Points

Licensing Pain Points

1. Prices skyrocket with added tags and clients
2. Project stalled because you have exceeded the tag limit



Solutions

1. Only pay by the license, not by the number of tags or clients
2. Unlimited licensing lets you add as many tags as necessary

SCADA Case Study

Kredsløb

- Kredsløb supplies district heating for 170,000 households in the Aarhus Municipality in Denmark
- Aarhus' district heating system is large
 - 1,200 miles of pipe beneath the city
 - 700,000 tags
 - 150 devices
- System integrator Enuda recognized that Ignition's unlimited licensing model would keep costs low while retaining future scalability



SCADA Case Study

Kredsløb

- With Ignition, organizations pay by the server and can add as many clients, screens, tags, devices, or connections as needed for no extra cost.
 - “They now have a SCADA platform that’s tailored for the future, so they have something to build on.”
 - “It’s scalable, so they’ll be ready for whatever they need.”
- Around 35 people are using the platform every day at Kredsløb and they plan to add more users to the system.

SCADA Pain Points

Cost Pain Points

1. You have to purchase the software before you can start developing
2. Accurate pricing can be difficult to determine



Solutions

1. Download Ignition for free and refresh the 2 hour trial as long as needed
2. Prices are transparently listed on the IA website

SCADA Pain Points

Cost Pain Points

1. Expensive beyond any practical use
2. Integrators charged for tech support
3. Extremely high support fees



Solutions

1. Affordably licensed by the server
2. Free tech support for integrators
3. 90 days of free phone support plus reasonably priced annual tiers

SCADA Pain Points

Park City & Mountain Regional Water

- MRW & Park City both chose Ignition for supervisory control of their water utilities.
- Park City increased tags its from 8,000 to 130,000, and MRW increased its tags from 5,000 to 90,000 and saved \$400,000.
 - “That savings more than funds my entire department.”
- Systems integration company SKM also saw the potential of Ignition’s unlimited free trial and experimented with the platform before acquiring a license.



SCADA Pain Points

Park City & Mountain Regional Water

- Ignition's unlimited licensing has allowed Park City the flexibility to expand and modify its SCADA system for no extra cost.
 - "Before Ignition, we did not have that luxury."
- Park City was also able to add more clients without the need to download them individually or to pay for extra licensing.
 - "Everybody has eyes on the system, and nobody is getting in anyone's way."



SCADA Pain Points

Training Pain Points

1. In-person training is expensive
2. No easy way to get help from fellow integrators



Solutions

1. Free online training
2. The IA forum is full of helpful advice

<https://forum.inductiveautomation.com/>

SCADA Pain Points

Digital Transformation Pain Points

1. System becomes vulnerable to new security threats
2. No way to ask for or implement small fixes
3. Not compatible with emerging technologies



Solutions

1. New versions stay up-to-date on current features & protocols
2. Dedicated feedback channel & steady release schedule
3. Compatible with Docker, cloud, Machine Learning, AR/AI, digital twins

SCADA Pain Points

Autolus Therapeutics

- Autolus Therapeutics is developing next-generation T cell therapies to fight cancer.
- Autolus uses Ignition in its facilities for regulatory compliance and to securely automate data acquisition, visualization, reporting, and alarming.
- Also, Ignitions ability to handle many communication protocols including Modbus, MQTT, OPC UA, and Web API was important to Autolus.



SCADA Pain Points

Autolus Therapeutics

- Autolus chose Ignition for its technology, communication, device, and software integration capabilities.
 - “We’re working on integrating the new facility, and we’re using what we’ve learned to push integration to new heights.”
- Systems Integrator Barry-Wehmiller Design Group implemented Ignition to modernize and integrate Autolus.
 - “This was a first real software-integration project and application for Autolus,”
 - “Prior to this, there were small ad hoc data collection tools. This project and application were a leap into modernization.”

Next Steps

Future-Proof Your System

- Without the frustration of pain points, you're free to continually add new functionality and increase the size of your system
- The free resources at the Ignition Exchange can accelerate and supplement development
- Consider new architectures, new strategies, and new technologies

No More Pain Points



With Ignition

- Limitations - Freed Up
- No Licensing Hassles
- Easy to Use
- Fast Deployment
- Flexible Architecture
- All-in-One





Ready to Try Ignition for Yourself?

Download the full version for free at:
[inductiveautomation.com](https://www.inductiveautomation.com)



inductiveuniversity.com

*Ignition User Manual also available at:
docs.inductiveautomation.com*

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Contact Annie Wise at: awise@inductiveautomation.com

Questions & Comments



Call us at: **800-266-7798**



**Melanie
Hottman**
Director of Sales
x247



**Jim
Meisler**
x227



**Ramin
Rofagha**
x251



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