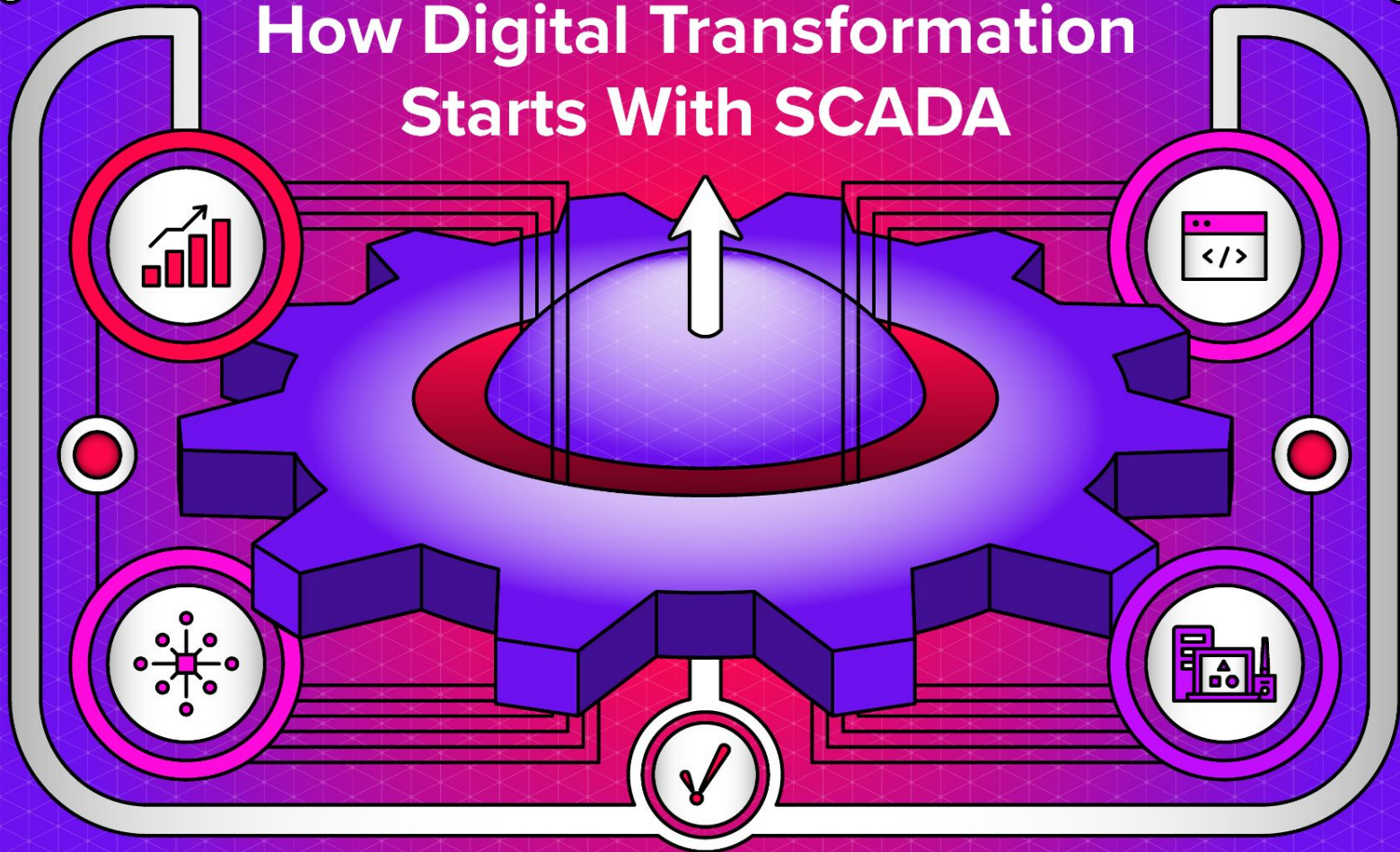# How Digital Transformation Starts With SCADA

# Today's Speakers

**Travis Cox**

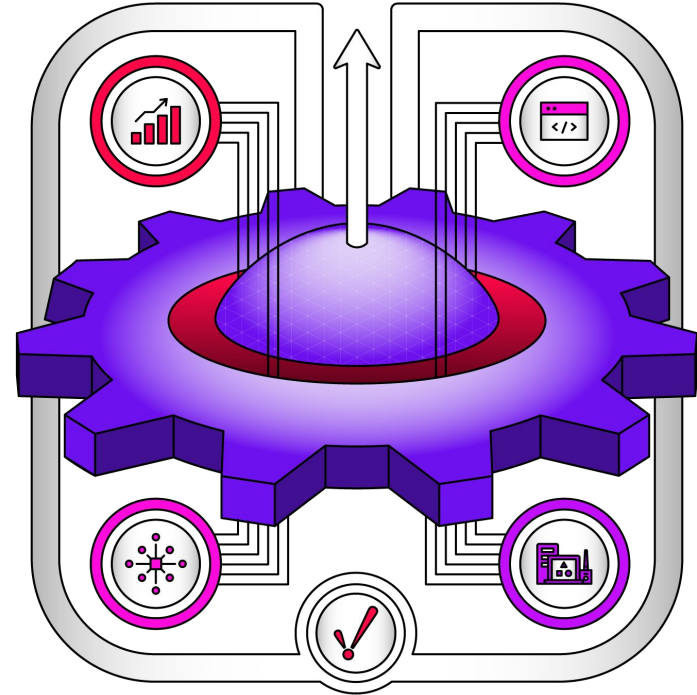*Chief Technology*
*Evangelist*
*Inductive Automation*

**JC Harrison**

*Vice President of Products and*
*Operational Services*
*Roeslein and Associates*

# Agenda

- Digital Transformation
- Requirements for SCADA
- Ignition and Future Growth
- Ignition and Digital Transformation
- Integrators and the Ignition Ecosystem
- Q&A

# About Inductive Automation

- We make software for problem solvers
- 300+ employees in the US & Australia
- 57% of the Fortune 100 and 44% of the Fortune 500 use Ignition
- Highly diversified customer base across many industries
- Ignition installations in 100+ countries
- 4,000+ integrators worldwide
- Profitable and independent with no outside investors

# 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

# Empowering Enterprises

- Supporting Enterprises for More Than 20 Years

- Used and Trusted by Many Top Companies

# Digital Transformation

# Digital Transformation

- Involves process improvement through digital technology
- Every organization's Digital Transformation is unique
- More of a journey than a destination

# The Right Foundation for Digital Transformation

- Before attempting Digital Transformation, you first need a strong, modern SCADA system as your foundation.
  - "Data Is King"
  - SCADA leverages the OT data you need for Digital Transformation
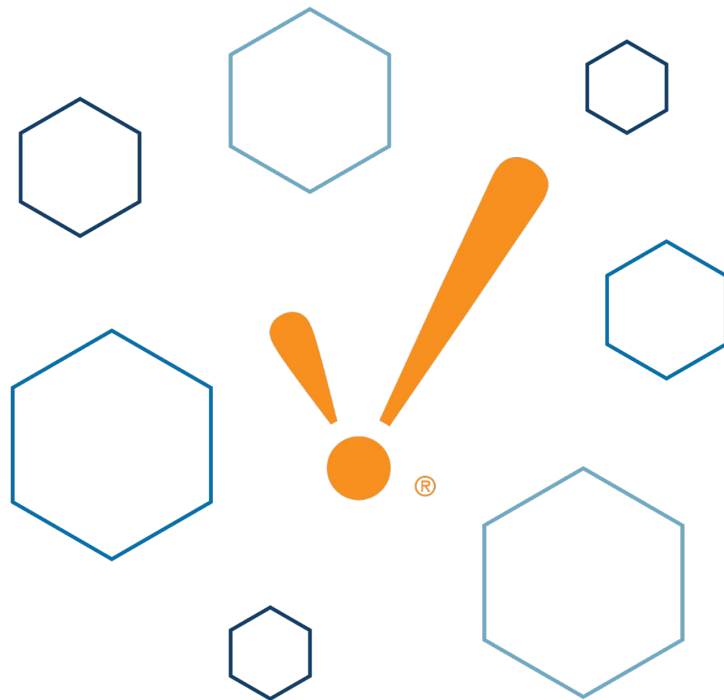
# Vital SCADA Requirements

- Connectivity to the plant floor
- Monitor, gather, and process real-time data
- Control processes locally and remotely
- Designer to build applications
- Powerful visualization
- Historian and store & forward
- Alarming
- Reporting
- Mission-critical (redundancy)

# Ignition and Future Growth

Continuously solve pain points and future-proof your system.

- Unlimited licensing
- Cross-platform and deployable anywhere
- Easy to install / upgrade
- Included designer
- Ability to connect to more devices, create additional projects, and more.
- Project changes deployed instantly
- Industrial-grade security
- OT / IT convergence
- HTML5 visualization
- Ability to integrate with business systems
- Additional tools

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- *Sold by the server*
- *Unlimited tags, clients, connections, designers, scalability*
- *Variety of architectures and real-world scenarios*

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- *Works on any OS*
- *Connect to any device*
- *Connect your entire enterprise*

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- *Only takes a few minutes*
- *Fully backwards compatible*

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- *Development tools, component libraries, SQL integration, unlimited clients, drag-and-drop design – and more*

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- *Build data models and templates easily (object-oriented design)*

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- *No need to restart.*

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- *TLS*
- *Authentication*
- *Auditing*
- *Customizable security settings*
- *Testing by trusted security providers*

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- *Leverage SQL databases*
- *Connect to MES and ERP systems*
- *IT can manage infrastructure*

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- **HTML5 visualization**
- Ability to integrate with business systems
- Additional tools

- *Native apps for phones and tablets that work smoothly and look amazing*

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- OT / IT convergence
- HTML5 visualization
- **Ability to integrate with business systems**
- Additional tools

- *Integrate with ERP, CMMS, and more*

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- HTML5 visualization
- Ability to integrate with business systems
- **Additional tools**

- *Forum*
- *Documentation*
- *Inductive University*
- *Ignition Exchange*

# ANZCO Upgrades To Enterprise SCADA

- ANZCO needed to update and standardize control systems.
- Perspective supported existing applications without altering PLC code
- Upgraded their system to Ignition 8.1 enterprise-wide without stopping the plant
- Security system with ANZCO's Active Directory and Ignition's identity providers
- Gateway network allowed for central control and more users
- ERP system integration — and more
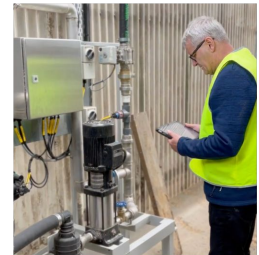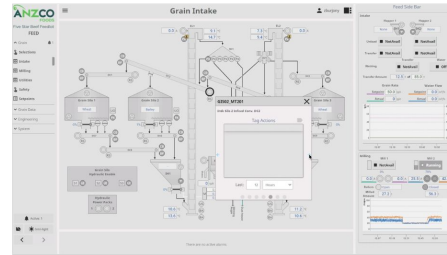
# Ignition and Digital Transformation

In addition to being a state-of-the-art SCADA system, however, Ignition also lays the foundation for Digital Transformation.

# Solutions from Edge to Cloud
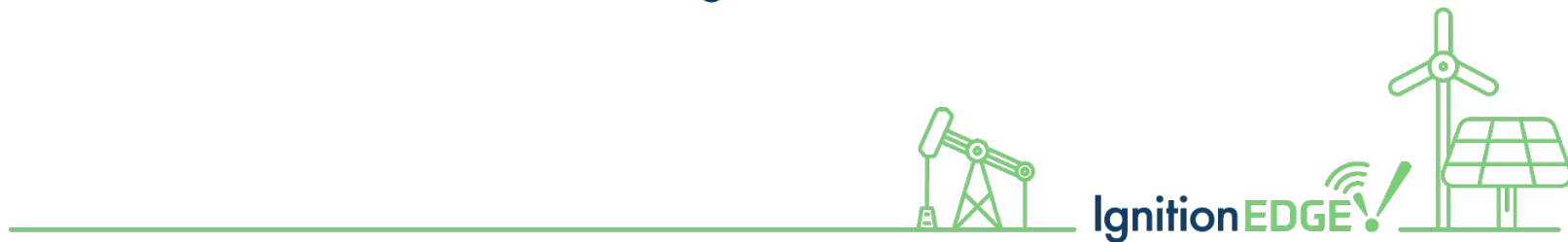
# Scalable Architectures
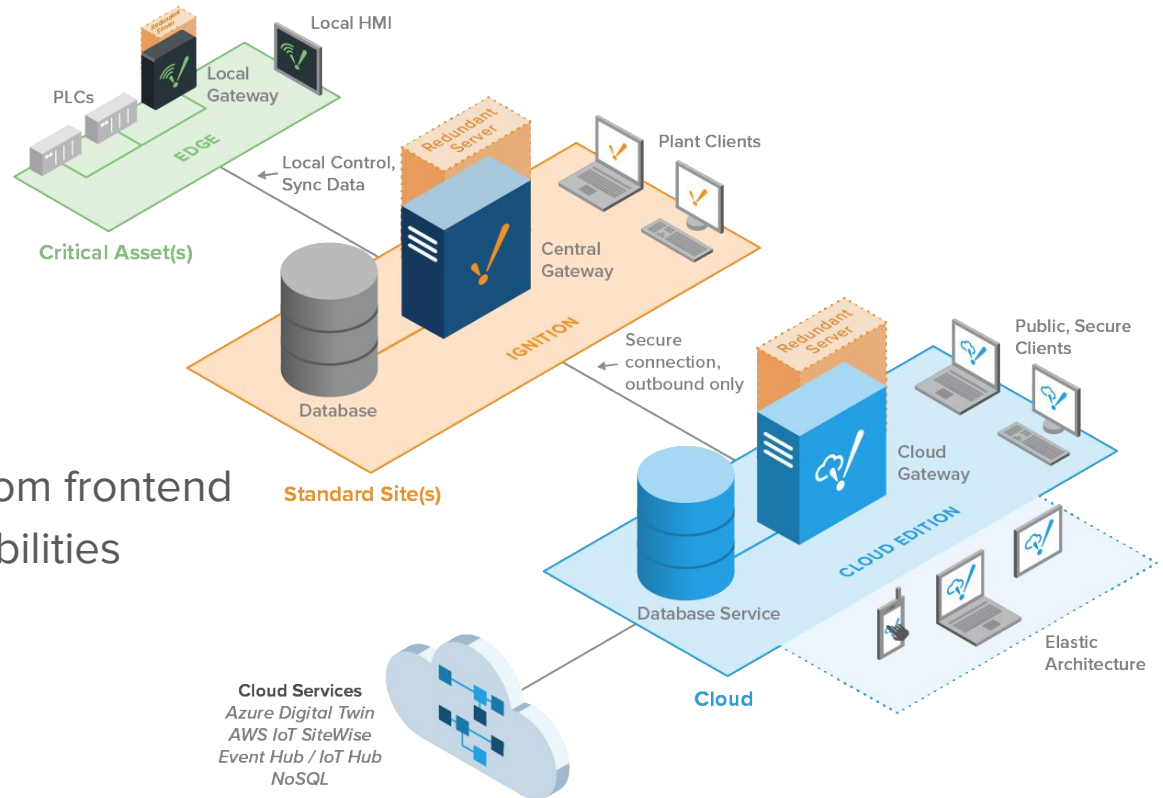


Architectures

- Leverage the edge
- Breaking apart backend from frontend
- Endless architecture possibilities

# Support for UNS and Digital Twins

- Leverage new smart sensors and technologies
- Build data models at the edge
  - Single source of truth for data
- Streamlined data pipeline
- Leverage MQTT and cloud connectivity
  - AWS IoT SiteWise
  - Azure Digital Twin

# Easily Integrate with IT

- With open standards
- Meet the unique requirements of both OT and IT
- Everyone sees the same data
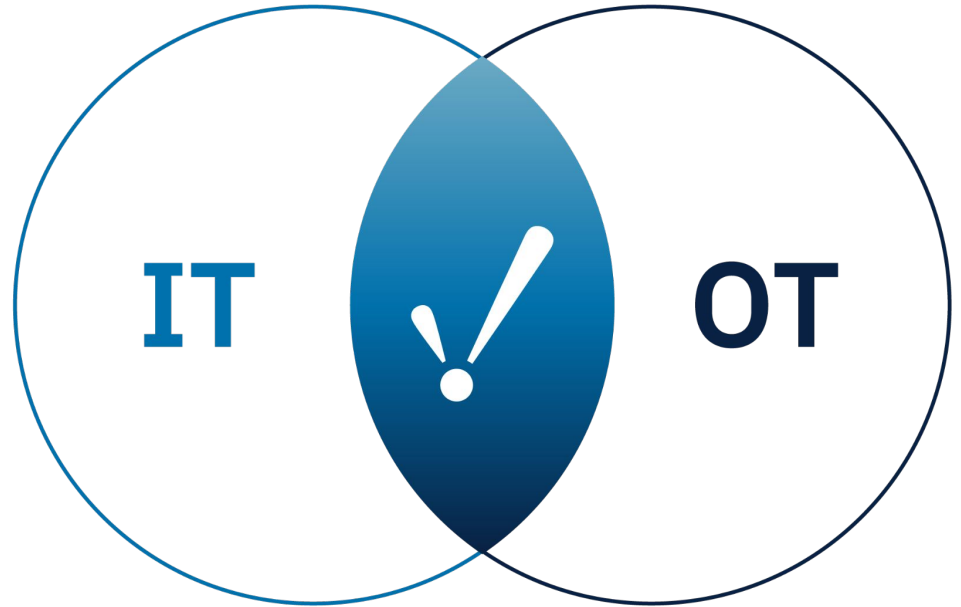
# Enterprise Management

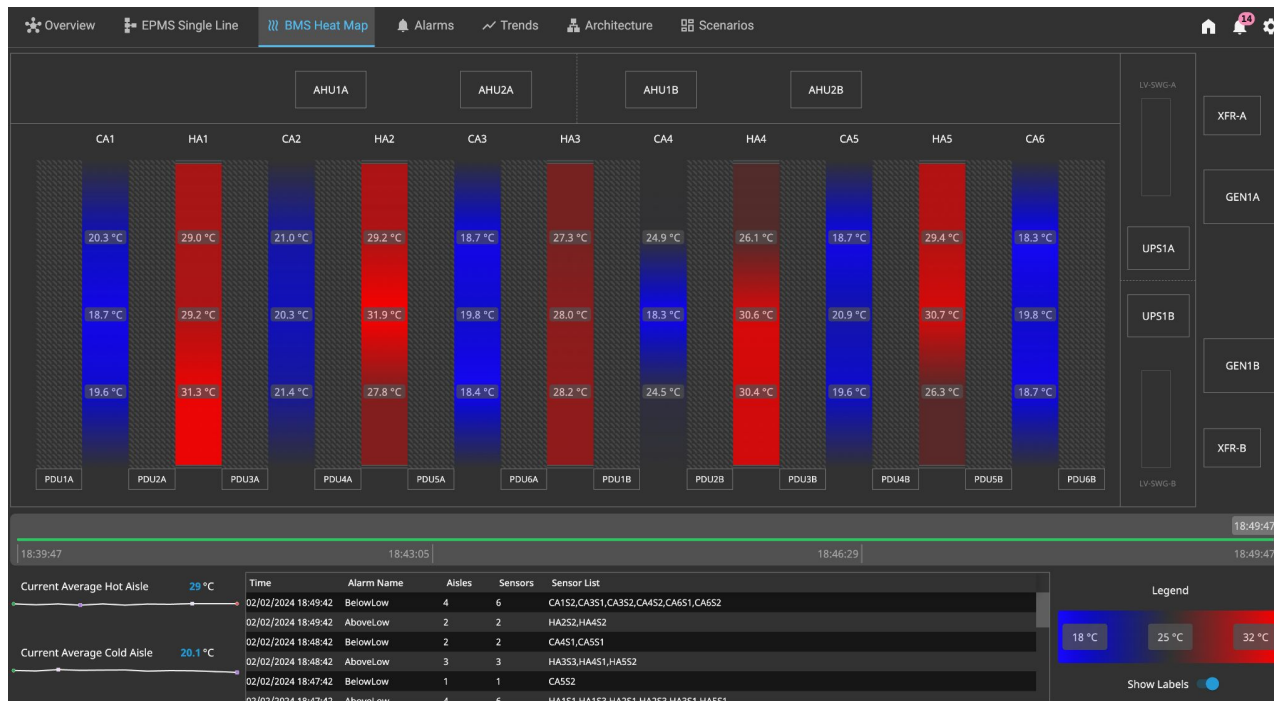- Enterprise Administration Module (EAM)
- Containers and orchestration
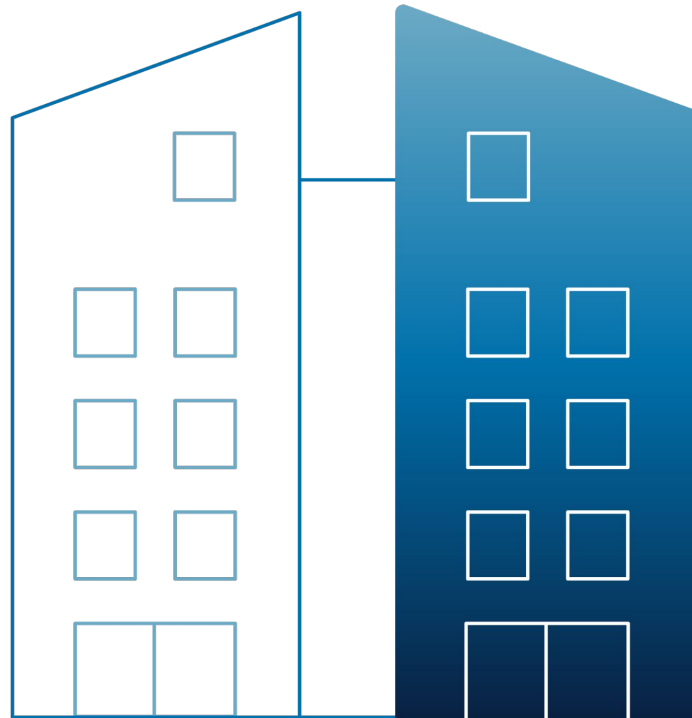
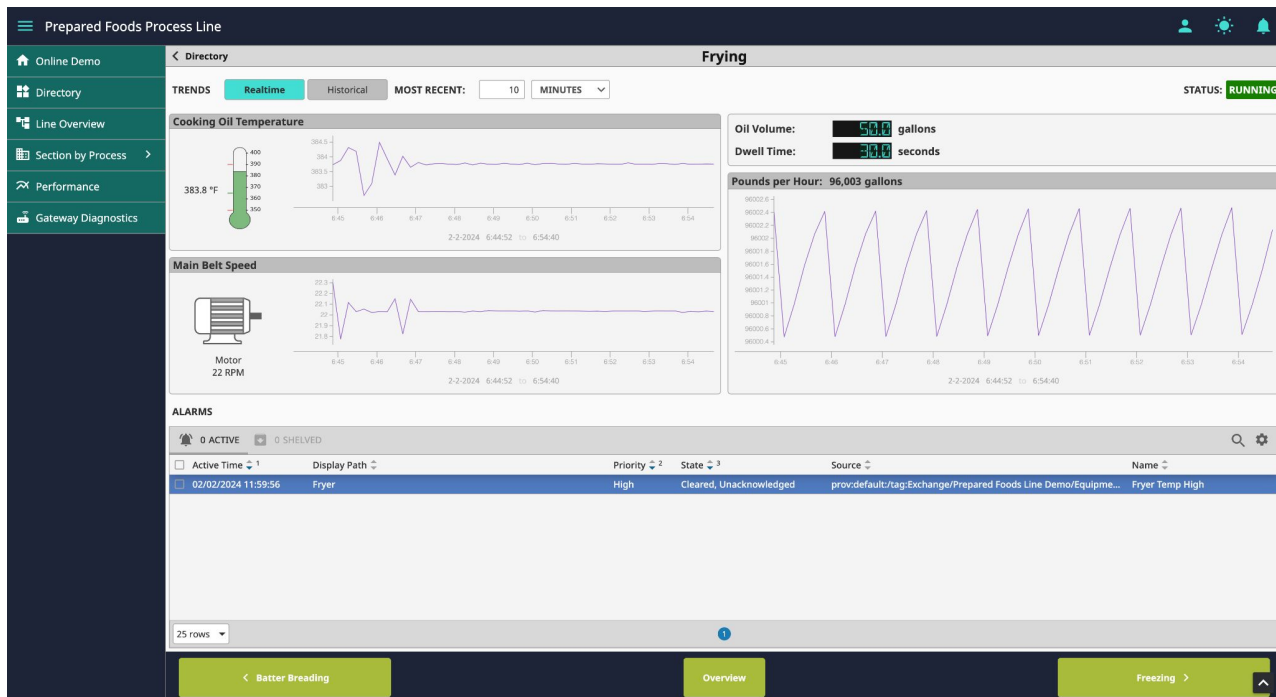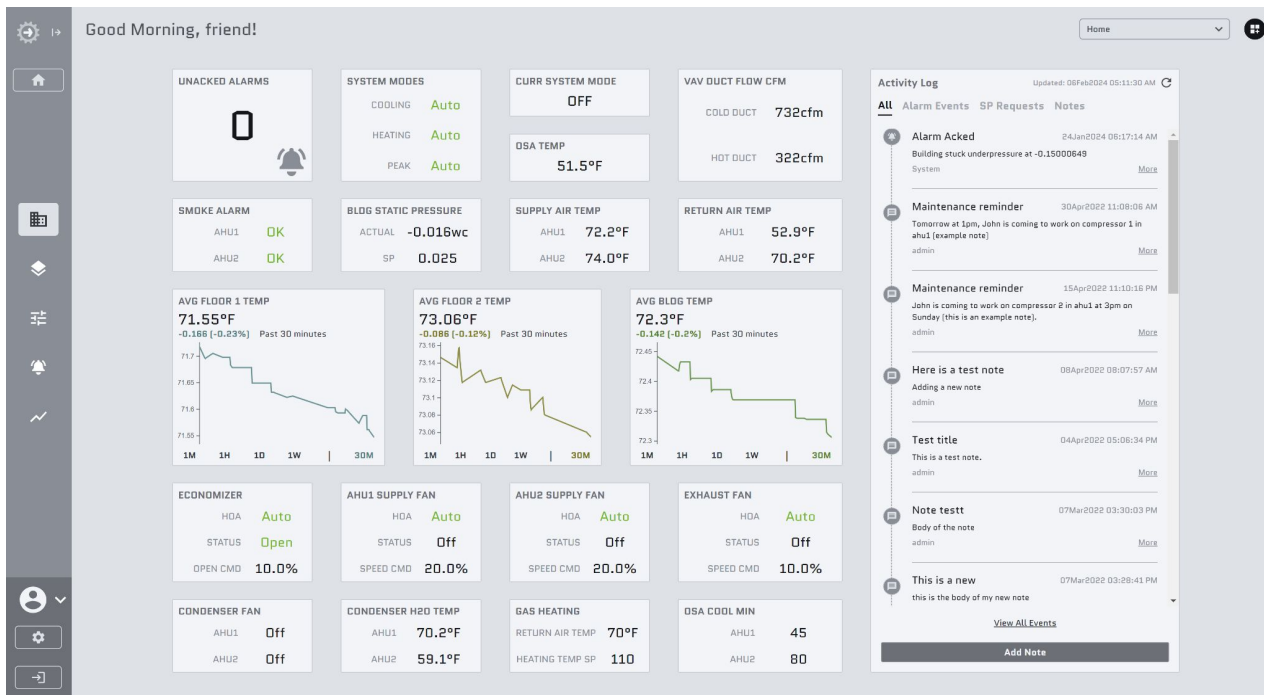# Create Applications and Dashboards
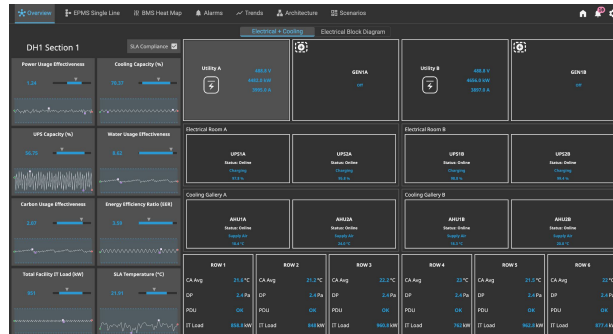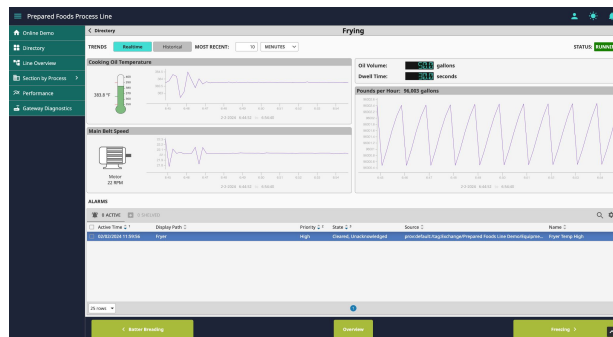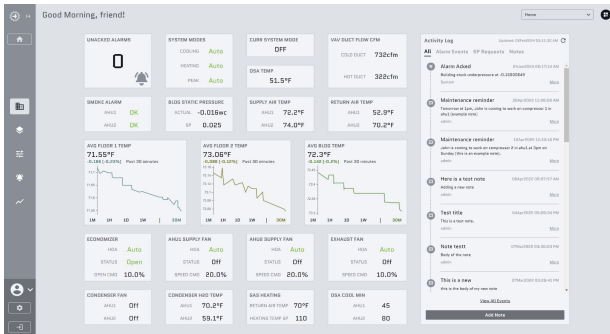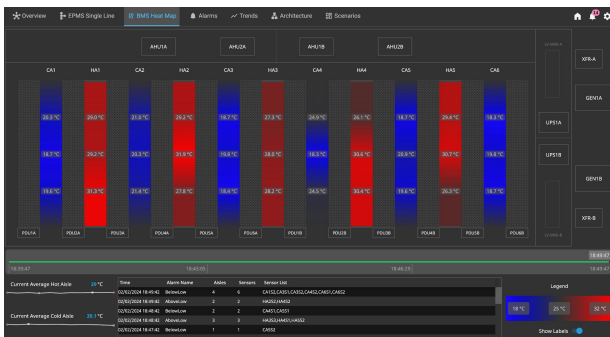
- Make data visible to anyone anywhere

# Create Applications and Dashboards

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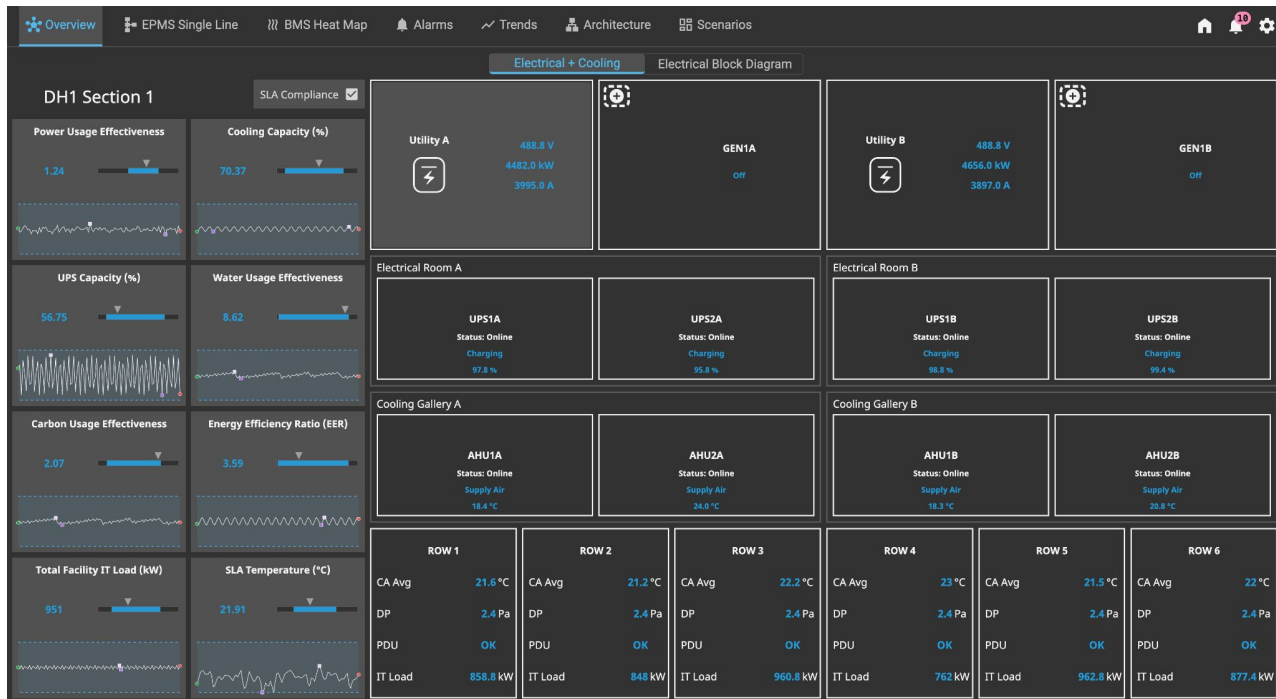
# Ignition for Analytics and AI/ML

- Low-code tools
  - Analyzing and visualizing data
- Machine Learning Manager
- Built-in Python scripting libraries
- Cloud Injector Modules from Cirrus Link
  - Leverage third-party analytics and ML tools on leading cloud platforms
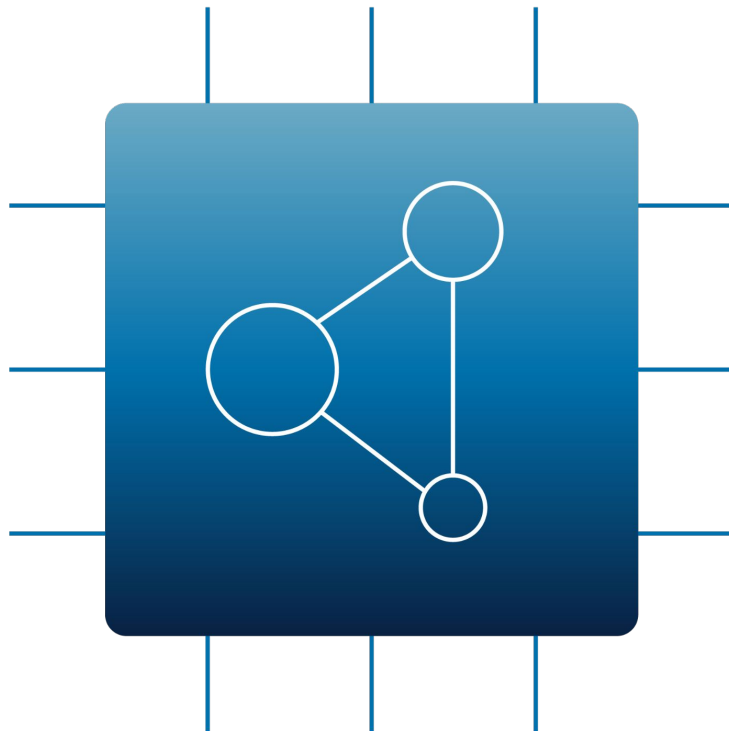
# Built-In SDK for True Extensibility

- Develop new modules to extend what Ignition can do.
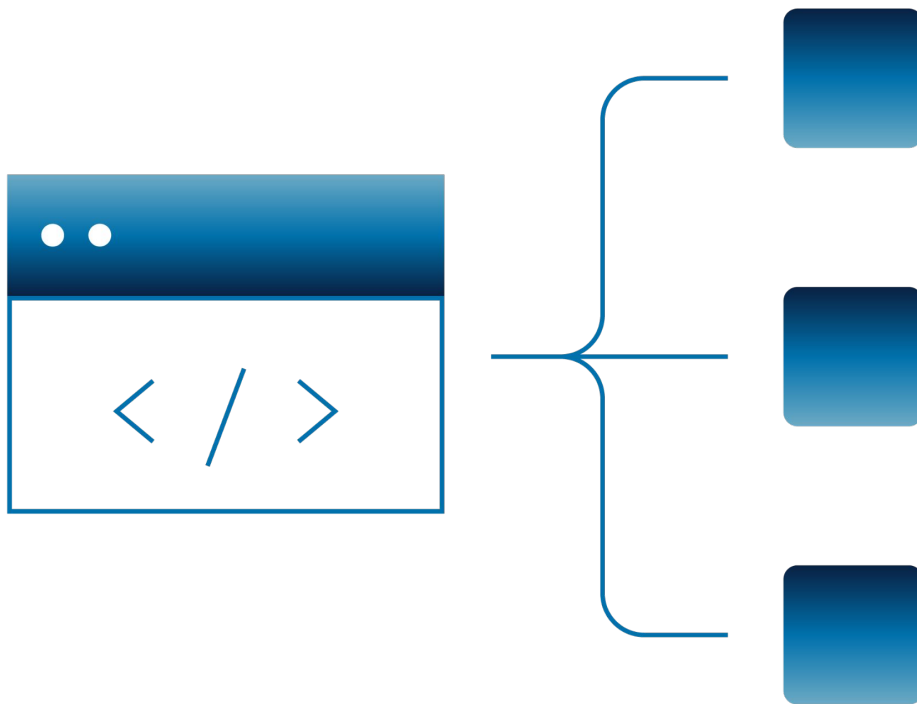
# Saint-Gobain PAM's Digital Transformation

- From paper-based processes to digital
- Open standards for connectivity
- Improved product traceability
- Integrating SCADA, MES, Track and Trace, and Quality Control
- RFID tags
- Responsive HMIs
- Testing and rollout of new systems without impacting productivity

# Ignition Ecosystem

- An ecosystem of integrators and partners to help solve challenges.

# Ignition Integrators

- 4,000+ integrators worldwide
- Certification Program
- Find An Integrator
- Verified Experience

# Ignition Integrators

- Digital Transformation is a journey. Integrators are the guides who help you get there.
- They understand the plant floor and how to best use Ignition
- They can leverage Ignition for SCADA and Digital Transformation

# Ignition Integrators

- OT-first Digital Transformation
- Essential to your success

# JC Harrison – Roeslein and Associates

- Systems Engineer with over 28 years of automation, SCADA, MES, data collection, and electrical engineering experience
- Over 17 years at Roeslein, which is one of the top-selling Ignition integrators in the world
- Led many standalone and enterprise deployments of Ignition systems
- Projects in many industries: food & beverage, alternative energy, packaging, powered vehicles, and more

Email: jcharrison@roeslein.com

Website: https://roeslein.com/

# The SCADA Foundation

- Data-driven decisions are only as good as the source data
- Connecting to machine/process data should be the first step in building a SCADA/enterprise system. That first step should be fully defined.
- The software that connects to the machines on the plant floor should serve as the central hub for all the software that gets layered on a plant/enterprise solution.
- That software should be as pain-free as possible and play nicely in all ways with other softwares and databases
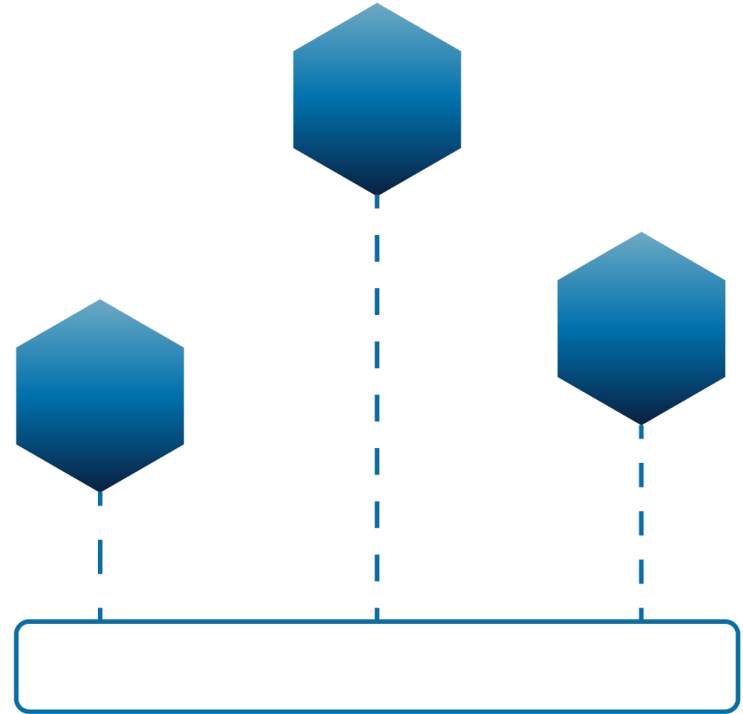
# The End User's Team

- For a single plant solution, an End User can rely on integrators to support and maintain the system
- For an enterprise solution (more than 3 plants), the End User really needs to build its own team
- An integrator who truly wants the best for an enterprise End User, should have at its goal that the End User can maintain and sustain the enterprise system
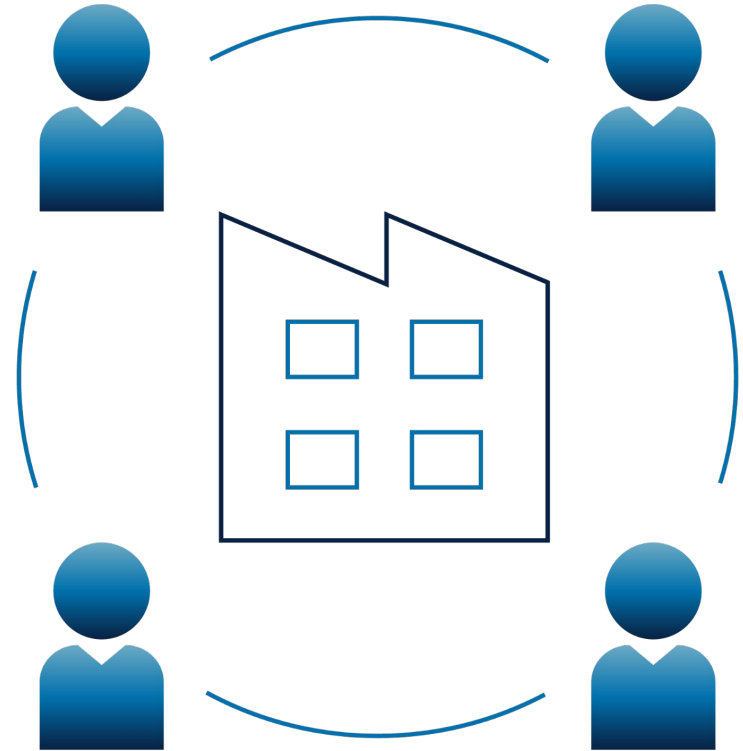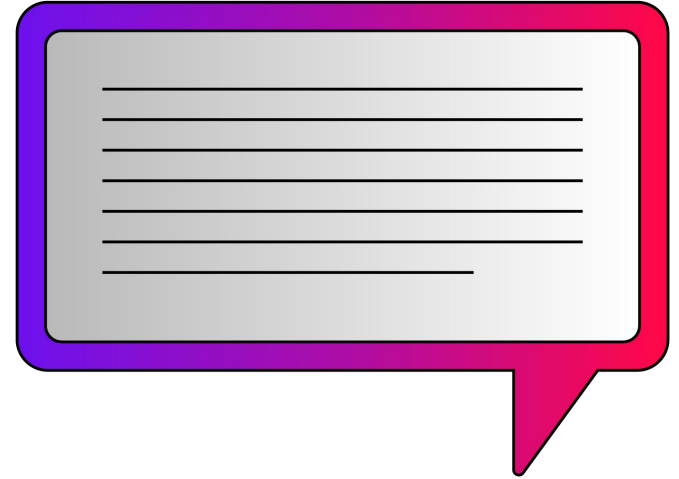
# Summary

- Build a SCADA system that is pain-free and that enterprise software packages can work freely with
- Strongly encourage Enterprise OEMs to build their own data team
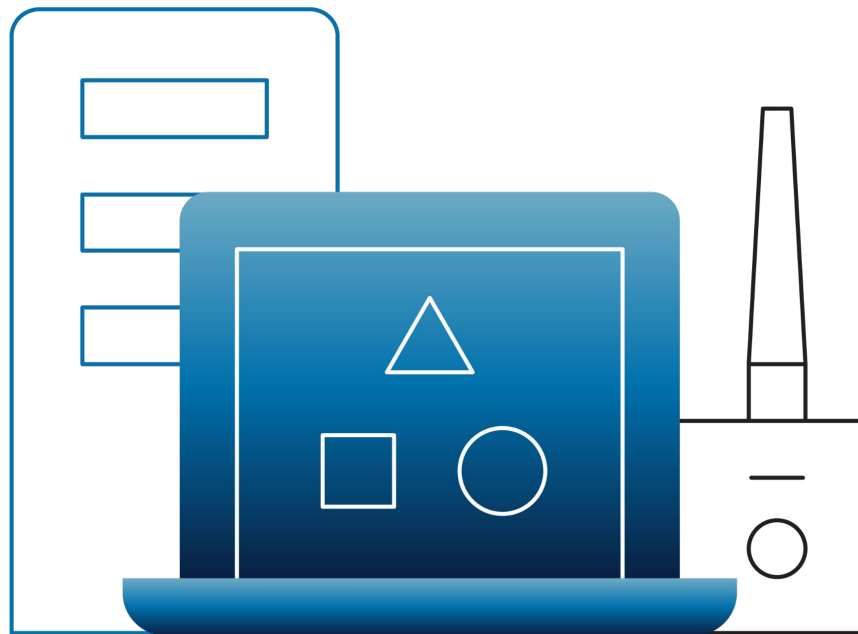
# How Has Ignition Changed Things?

- What has this done for your business?

- What has this done for your engineers?

- How has this changed your thought process in approaching customers?

# The Ignition Ecosystem

- Certified Ignition Integrators
- Inductive Automation Australia
- International Distributors throughout the world
- Strategic Partners, Solution Partners, and Alliance Partners
- Educational Engagement Program
- Community Impact Program
- Module SDK
- Training Program
- Inductive University
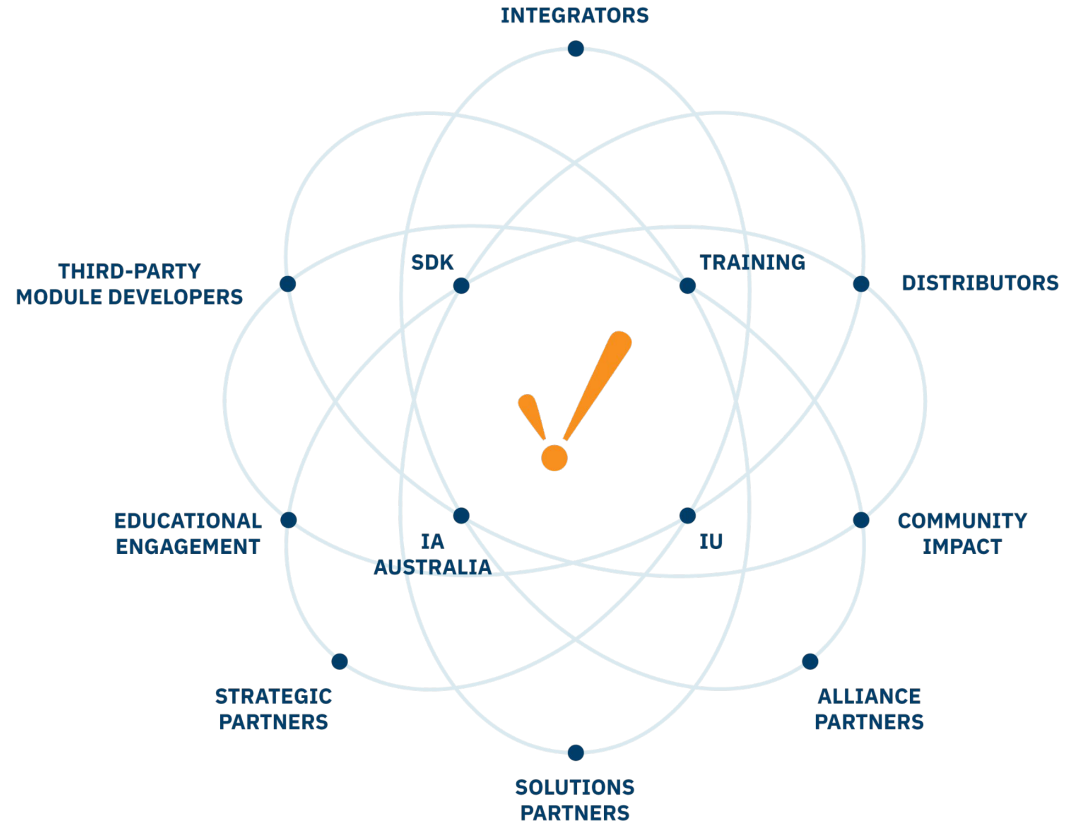
# Ignition and Digital Transformation

- Start with SCADA as a foundation
- Ignition lays the foundation for future growth
- Ignition lays the foundation for true digital transformation in addition to being a state-of-the-art SCADA system

Ready to Try Ignition for Yourself?

Download the full version for free at:
inductiveautomation.com

inductiveuniversity.com

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

# International Distributors

| | | |
|---|---|---|
| **Brazil** | FG Automação Industrial | www.fgltda.com.br |
| **Central America & Colombia** | NV Tecnologías S.A. | www.nvtecnologias.com |
| **France** | AXONE-iO | www.axone-io.com |
| **Italy** | EFA Automazione S.p.A | www.efa.it |
| **Middle East/North Africa** | Clarien Solutions | www.clarien.solutions |
| **Norway & Sweden** | Autic System AS | www.autic.no |
| **Sub-Saharan Africa** | Element8 | https://element8.co.za |
| **Switzerland** | MPI Technologies | https://mpi.ch |

Contact International Distribution Manager Yegor Karnaukhov at: ykarnaukhov@inductiveautomation.com

# Questions & Comments

**Ignition** by inductive automation

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

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Kristin Bainbridge
x308

Maria Chinappi
x264

Myron Hoertling
x224

Robert Graves
x142

DJ Parsons
x150

Roman Couvrette
x163

Abran Mathews
x151

Joe Rzepka
x333

For Inductive Automation Australia, call: **1300 10 8088**

# Thank You

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