

## MQTT and Ignition Solution Evolves Legacy SCADA System, Enhances Operational Excellence

It's no surprise that upgrading technology can be daunting. SCADA has been in force in the oil and gas industry since the late 1960s, and sixty years later, automation continues to evolve in strides. It's fair to assume that a significant number of hours and dollars are expended to maintain this outdated engineering.

**The Challenge.** Streamline Control collaborated with a leading global agricultural business to

replace their outdated SCADA system with modern technology built around open standards for communication. The midstream client wanted to propel their organization forward with a state-of-the-art solution to enable the safe delivery of hydrocarbons that meet industry best practices, enhance the operational capabilities of the controller, and provide real-time visibility of the system to remote and enterprise users. Streamline knew incorporating Ignition at all system levels would achieve these goals.

**The Solution.** Streamline was entrusted to design a scalable system, which included developing High Performance HMI displays in Vision, creating a complete tagging/asset structure for each asset location, building Perspective displays for enterprise users, integrating Ignition with Leak Detection systems, and advanced applications in Ignition used for batch tracking, PIG tracking, and compliance.

**Results.** The new SCADA architecture equipped pipeline controllers with better operational capabilities and improved efficiencies. Ignition exposed data, making it easily accessible and delivered rich and meaningful displays to all users. Using Message Queuing Telemetry Transport (MQTT) with Ignition played a significant role in modernizing edge connectivity by providing reliable and secure communications. The system went live in the fall of 2021.

Streamline's solution proves that even highly traditional and regulated industries like oil and gas can successfully implement an IIoT architecture using Ignition to transform and enhance their operations.

In September 2022, this project was presented with a [Firebrand Award](#) at the tenth annual Ignition Community Conference (ICC X) hosted by Inductive Automation. Streamline Control was the sole Canadian company to receive one of the six prestigious awards and is showcased as an award-winning leader and Premier Integrator for MQTT, Middleware, and Ignition technologies.

