FREEWAVE

ZumIQ™

ZumIQ™ - The Industrial Playing Field Has Just Been Leveled

FINALLY! A site automation solution for small and mid-sized companies! FreeWave Technologies Inc. offers ZumIQ App Server Software, a process-driven industrial App and Edge Intelligent platform that can be implemented easily and affordably. ZumIQ allows you to achieve enterprise-level process control, monitoring and automation without expensive retrofits, recurring subscription fees or costly, internal software development.

ZumIQ technology combines 900 MHz wireless telemetry with the ability to program and host 3rd party apps for intelligent control and automation of remote sensors and devices.   The platform can be compared to a Linux-based Raspberry Pi embedded in a robust industrial Ethernet radio.

Built for experts and novices alike, ZumIQ is a secure Debian developer's environment, a preferred tool for developers globally. It offers a standard Linux developer's package that includes a package management system. Developers can program with any language that is compatible with a Linux kernel and includes Python, Java, C++, Node-RED, and Node.js development environments.
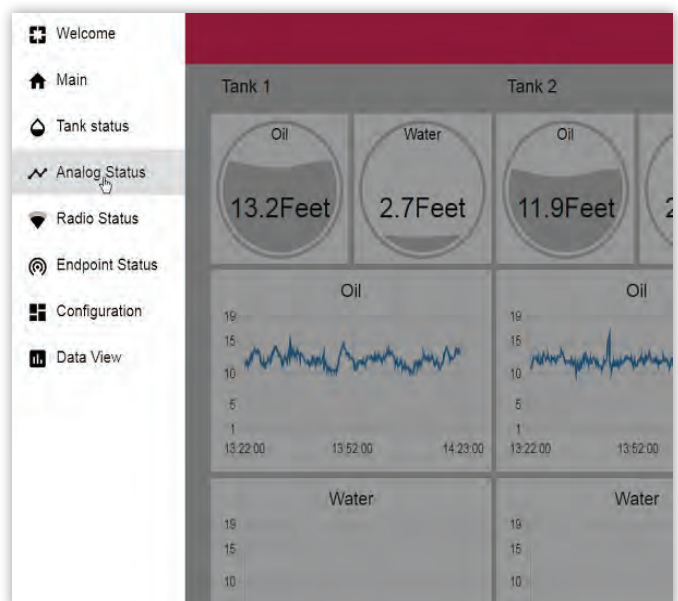
ZumIQ software is pre-loaded with Node-RED, Python and MQTT for easy Industrial IoT App development. Apps can be hosted on the ZumLink radio at the edge of a network. These apps can be designed to add value to cloudbased systems with local intelligence, analytics or process control. It might even be possible to replace costly SCADA or cloud-based systems entirely.

With Node-RED and other programming languages, you can solve business problems with rapidly created Apps that would previously have required a long development process.

The ZumIQ App Server Software platform allows companies to create custom Apps such as the ZumDash Small SCADA App, recently developed on Node-RED by FreeWave Field System Engineers with virtually no software development experience.

The playing field has just been leveled for small to mid-sized operators.

ZUMDASH: MENU SCREEN

How Does ZumIQ technology work?

With a subscription key activation on a rugged ZumLink 900 Series radio like the Z9-PE, you can use simple and intuitive graphical programming language like Node-RED to instruct the radio to automate processes and control data flow within the network, e.g., a well-pad or water treatment plant.

Originally developed by IBM, Node-RED is an intuitive programming tool to connect hardware devices, APIs and online services within the Industrial IoT. It is a browser-based editor that wires together flows within a wide range of nodes that can be deployed to in a single-click. With Node-RED as a base, you can develop custom Apps on ZumIQ with no programming experience at all. In fact, we developed this platform with the novice specifically in mind.

Utilizing the included ZumIQ Software Development Kit (SDK), you will have access to a suite of Software Development tools to design, create and test radio-managed applications, including:

- Information/Wiki on ZumIQ

- How to create and build an App

- How to install the App with ZumIQ

- How to run the App

- Application examples

- Node-RED, Python

- Access to www.openplcproject.com, a consortium of industrial App developers that share ideas and best practices on process control

In addition to the SDK, you can visit the FreeWave GitHub Repo for access to new applications and ideas that others are creating on the ZumIQ platform.

What can you do with ZumIQ?

With ZumIQ, you can develop apps to monitor data, execute logic, customize visualization and generate reports from anywhere in the world. ZumIQ integrates seamlessly with HART, Analog, Digital, and Modbus interfaces, allowing you to essentially create a small SCADA system with minimal CAPEX or OPEX. In addition, you can:

- Convert Modbus TCP to Modbus RTU and back, without any additional hardware

- Collect and store Modbus data for 30 days+ in the ZumLink radio and SCADA poll without a PLC

- Convert Modbus data to MQTT IoT publishing protocols

- Implement MQTT publishing protocols for Web visualization

From oil companies to tank farm managers, FreeWave customers have developed custom Apps on ZumIQ that streamline operations.

All that tech speak is fine and dandy. Does it save me money?

If you are a small or midsize business, it really is all about the bottom line. With the edge intelligence and process automation delivered by ZumIQ, you can ensure uptime and reduce on-site maintenance costs via remote monitoring and troubleshooting. By easily configuring the radios with Node-RED, you can also receive real-time alerts to potentially catastrophic events via text or email.   Peace of mind delivered to your smartphone: priceless.

With intelligent edge technology like ZumIQ, gone are the days of sending every packet of data to a PLC or host system for decision-making, action taking and trending. With ZumIQ, you can save money by developing new industrial apps to solve problems that cannot be easily done on RTUs, PLCs, or Gateways.

This is possible because through ZumIQ App programmability, the data is acted upon at the sensor utilizing a system that combines wireless connectivity and process control via open-source App programmability and a radio with 1 GB of Flash and 512 MB of useable RAM.

With ZumIQ, there is no need for expensive and cumbersome data services consultants or ERP implementations that gather data, analyze it, then act upon it. Slow and expensive is not what your company needs.

Your company needs "lean and mean." Your company needs ZumIQ App Server Software.

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