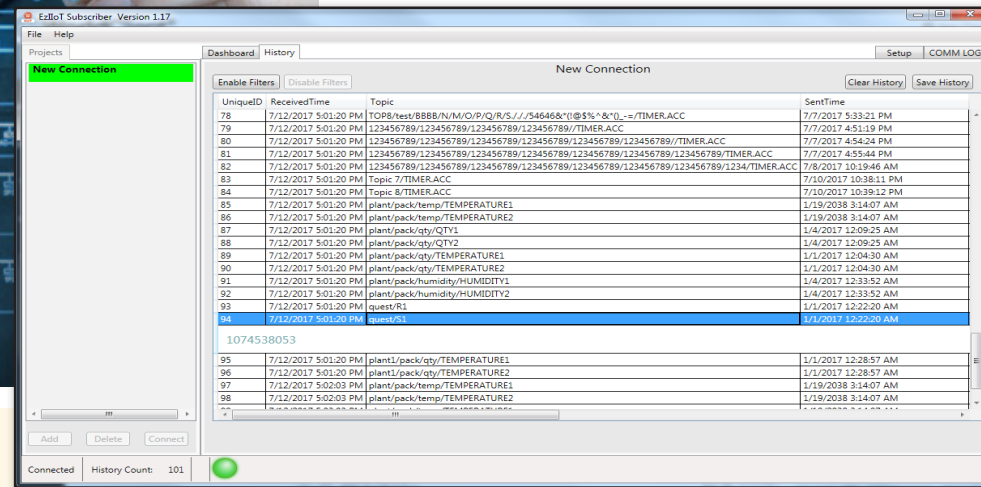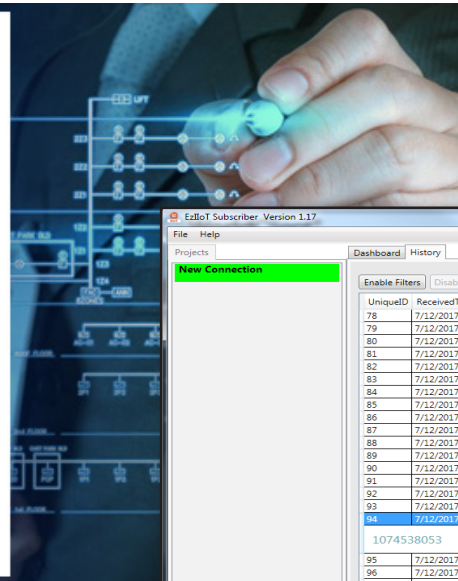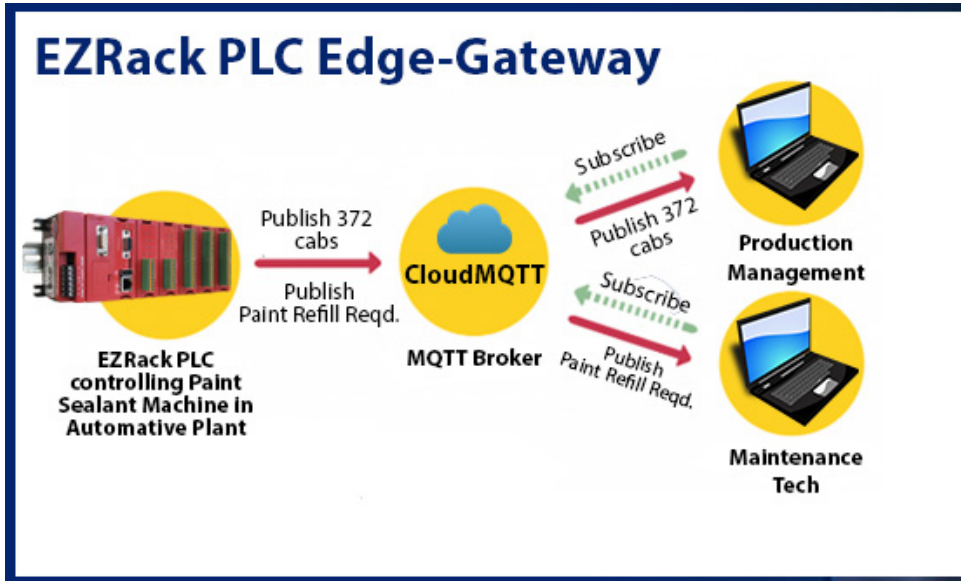# *EZRackPLC*™ / IIoT / MQTT Ready

## EZRack PLC - IIoT

The EZRack PLC is ready for the Industrial Internet of Things (IIoT) applications. With MQTT protocol support and direct connectivity to external devices such as sensors, RTDs, analog inputs, etc. as well as a easy to setup secure communication with open networks such as Modbus TCP/IP, EZRack PLC is not only a powerful PLC but also a low cost Edge Gateway device.



### EZRack PLC Edge-Gateway



### EZ-IIoT Utility

Quick and EZ Access to Data that is published to a Broker by EZRack PLC

Store Data locally on PC or Server by using Utility's "push data" feature

## Edge Gateway

Edge gateway, also known as "Edge-of-Network," devices unlock valuable data from existing operational equipment, providing your business powerful information that can be utilized to improve overall productivity and efficiency, thus increasing your bottom line! In the manufacturing world, edge gateway devices translate existing data used by control applications into an IIoT friendly format that can be sent to the "Internet". A secure, reliable and fast method of "edge gateway communication" is done through the widely accepted MQTT protocol.

The EZRack PLC operates as an "Edge-Gateway" device with direct connectivity to external devices such as sensors, RTDs, analog inputs, etc. It can take these direct inputs from devices, for example a 4-20 mA signal from a analog sensor, and do complex manipulations using the CPUs advanced math function blocks, and can then communicate that output securely with other operational devices over open protocols such as Modbus RTU or TCP/IP. Through the use of the MQTT protocol, EZRack PLC IIoT ready CPU can also publish up to 80 tags of the computed data to the "Internet" via a "Broker", thus providing a subscriber pertinent real time data from these external devices. The use of the MQTT protocol allows for great interoperability since it is becoming an industry standard. It also allows for great security through the broker. An important note with the EZRack PLC PLC, is that it is very secure with the MQTT protocol instruction as there is no backwards flow of data. That is data is only ever published from the PLC; it will never accept any data or commands back from any server, broker or client. Hence, there is no fear of disruption to the machine/ PLC operation. It is a secure and reliable method of sharing machine data to intended personnel.

## What is IIoT?

The Industrial Internet of Things (IIoT) focuses on the interconnectivity and utilization of powerful data in a manufacturing environment. IIoT enables the acquisition and accessibility of important plant data at far greater speeds, security and reliability. IIoT incorporates machine learning and big data technology, harnessing the sensor data, machine-to-machine communication and automation technologies that have existed in industrial settings for years. The driving philosophy behind the IIoT is that smart machines are better than humans at accurately, consistently capturing and communicating data.

EZRack PLC built in IIoT and MQTT protocol support acts as a "bridge" between existing operational technology within a plant, for example factory machines, and plant database networks, so valuable data can be shared reliably and securely to improve plant productivity and efficiency.

## Benefits of IIoT

- Achieve better access to data and increase your company's bottom line
- Notify production management of essential data to improve efficiency.
- Alert maintenance team of critical data to troubleshoot machine and / or do preventitive maintenance
- Increase connectivity and communications of essential data within manufacturing plant personnel from factory floor to executive offices
- Securely and reliably share existing operational data of factory machines with plant networks
- Get real-time data from anywhere in the world over secure MQTT protocol

## EZ-IIoT Utility

- Free IIoT Subscriber Utility
- Automatically populates "topics" (Data) sent to broker from EZRack PLC MQTT Instruction
- Push data function to local PC or Server
- EZ to navigate "Essential Data" dashboard