

Solution Note

Data Efficiency: Connecting the Field with OneWireless and Paperless Recorders



Challenge

The most important equipment assets to an industrial operation are sometimes the least accessible. The cost of running wiring and cables to instruments in remote, inaccessible areas of the plant can be prohibitive, especially in hazardous areas, or where there is rotating machinery or natural obstacles.

Even where plants can get the data, however, its value is limited unless the right people can see it, when they need it. Too often, the central control room is swamped with data, while hands-on operators in other parts of the plant are starved for the information they need to react quickly to improve the safety, reliability and efficiency of the process.

Solution

Honeywell's OneWireless industrial wireless network provides the low latency, high availability and security needed to gather data throughout the plant. Additionally, wireless technology reduces the cost and time for providing data to the control room, it eliminates manual readings, captures real-time data from inaccessible areas and even allows workers to access DCS and other application data using mobile devices in the field.

Honeywell's Trendview paperless recorders complement the wireless solution by making the acquired wireless data visible to the user and data can be securely stored for playback and analysis beyond the control room – wireless data is made available to where it is needed for better decisions.

The OneWireless network supports Modbus applications, with the Wireless Device Manager (WDM) acting as the Modbus server (Modbus TCP or Modbus RTU) allowing clients to access measurement, status and diagnostic data from wireless field devices communicating with a Field Device Access Point (FDAP) that is networked to the WDM.

A Trendview paperless recorder can serve as a Modbus Master connected to the WDM's Process Control Network (PCN) via an Ethernet Switch, using the Modbus TCP protocol.



Experion Integration

The Wireless Device Manager integrates with Experion PKS and automatically detects connected wireless field devices, displaying them in the Experion Control Builder. No data mapping or non-value added engineering, such as custom faceplates or detailed display development, are required.

Reliable Availability

Each transmitter on the OneWireless network can communicate with two ISA100 Wireless field devices or access points. Combined with Wireless Device Manager's redundancy, Experion's fault tolerant Ethernet redundancy, and its patented radio diversity algorithm, OneWireless offers the best wireless network availability.

The widest choice of transmitters

Supporting the ISA100 wireless standard, OneWireless gives users access to the largest range of native wireless instruments available.

See, save, send, securely

Honeywell paperless recorders provide visibility, storage and capability to send data in areas outside the control room such as the instrument shack and instrument maintenance room. Recorded data from directly connected sensors or transmitters can be used to document process conditions and for process improvement. All electronic data is encrypted within the recorder and data access is limited to those having user name and password rights established by an administrator.

Increase Visibility

Recorders feature color displays to provide clear graphing and visibility of continuous and batch data for plant managers, engineers, operators, maintenance and quality control personnel. Users can schedule uploads of recorder data or acquire data in real-time. Paperless recorders can provide data to multiple departments simultaneously, rather than relying on the central control room to identify and alert those needing to see the data. It promotes faster decision making to improve reliability, safety and efficiency.

More Insight

With Honeywell's TrendManager Software Suite users can review and analyze the recorded and archived data. The suite of software also includes tools for configuring recorders, setting up scheduled uploads of data, acquiring data in real-time and exporting data to other packages, such as Excel.

The Honeywell Advantage

Honeywell's OneWireless network offers users the most powerful industrial wireless network available, with the lowest total cost of ownership. It provides users low latency, robust performance, a scalable solution and a single network for WiFi and ISA100 connected devices to capture data from the field.

Using Honeywell's Trendview paperless recorders, operators can acquire, visualize and store wireless data for real-time effective process improvements that promote a higher quality, safer business.



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For More Information

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