



bransystems
Brilliant IT and Automation Solutions

Energy Management System

High-quality and audit-proof measurement data are the backbone of any energy data management system. The Energy Management System is developed to collect data from various monitoring devices in your manufacturing facility, while providing real time data to management for analysing via an integrated network. With this system the user can collect data from steam, water, air and electricity meters. This data enables the client to keep track of their energy usage and compile an accurate portfolio of what the company's energy usage is every month.

The system is designed for collecting, processing, and transferring meter and sensor data comfortably and safely. The system enables the user to more effectively manage their consumption, and where they might have over usage decide on how they can be more conservative and increase their green footprint. Each of the four units have an energy meter installed in conjunction with the actual datalogger. These energy meters collect the data and send the figures to the central unit, which then convert the data and store it on a designated main server for analysing.

Business Challenges

- Integrate Field Instruments from different manufacturing vendors into the Energy Management System.
- Log Electricity, Water, Steam and Air Consumption as per Client specification.
- Setup and Commission the Energy Management System to log real-time data.
- Generate Consumption reports from the Energy Management System.
- Connect the Energy Management System to the WiriTec Server to send data to Germany.

Inputs and Expertise

- Systems integration, International Society of Automation standards.
- Industrial networks and protocols such as Modbus RTU, TCP.
- Experience in Installation and commissioning of Energy management Projects.
- Designing a Hybrid System with Instruments from different vendors.
- Factory Automation and Engineering Experience in Utilities (Electricity, Energy, Water, Air).

Technical Information

- Datalogger Interfaces: RS-485, RS-232, USB, LAN.
- Logs: Modbus, M-Bus, IEC 62056-61.
- Designed for use in rough, industrial environments.
- Six serial ports which can be preconfigured as RS-232 or RS 485.
- 4 network interfaces.



Key Features

- A secure separation in the industrial network can be facilitated.
- Web interface.
- DIN-top hat rail mounting.
- Robust design.
- The fanless design allows a complete protection against dust, which contributes to a maximum lifespan of the product.
- The use of industrial components (SSD disk, memory) makes it possible to use it in rough environments.
- All functions are implemented on the software side and can be supplemented, changed and updated at any time. By using standard IT components and basic software, the system can be integrated into every IT network and meets all safety requirements set by IT departments.
- Economic way to read meters.
- The user can access the system and all relevant data via a modern web browser anywhere in the building – provided that the individual user has the authorisation to do so.
- Monitoring functions that allow facility and building managers to gather data and insight that allows them to make more informed decisions about energy activities across their sites.
- Optimally manage energy usage in a reliable and secure manner.

Customer Benefit

- Comprehensive, Integrated, Secure Sys.
- Real Time monitoring.
- Improve energy usage and management.
- More efficient use of energy.
- Manage energy targets and objectives.
- Use data to better understand and make decisions about energy use.
- In a Manufacturing Context:
 - Measure the results.
 - Continually improve energy management.
 - Greater insight into energy usage.
 - The 'smart' way to understand and control your energy costs.
 - Track your energy use so you can identify trends and opportunities for change.

Customer Reference

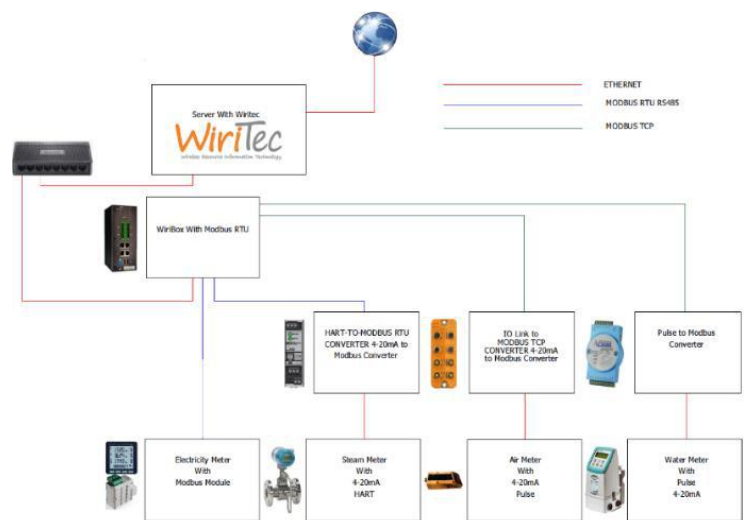


Figure 1: Layout

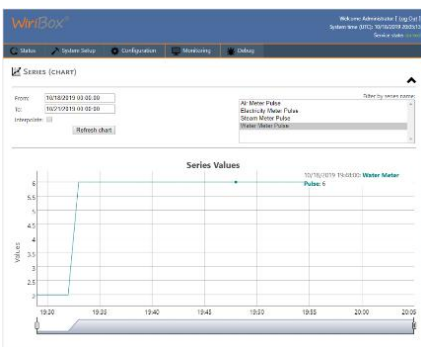


Figure 2: Water Meter Data



Figure 3: Steam Meter Data

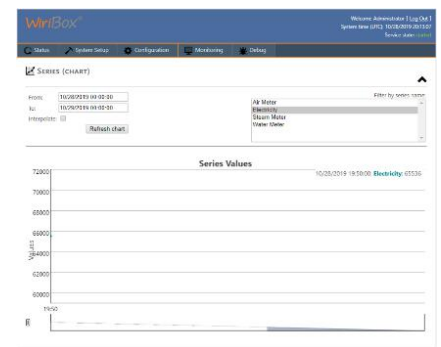


Figure 4: Electricity Meter Data