



## I-8000 Waste Water Treatment System

With the delicate tolerances involved in waste water treatment, it is no surprise that a precision industrial data acquisition solution is needed to closely monitor and assess waste water attributes. With such factors as: pH, toxicity, and chemical composition, it is no surprise that wastewater processing requires accurate and accessible HMI platform, to ensure operators receive easy to read, reliable information.

Recently, ICP DAS had chosen to showcase a cost-effective solution targeted at OEM scale waste water treatment facilities; enabling users to implement a powerful data acquisition solution, across a vast information infrastructure. With this architecture in mind, ICP DAS recommended the I-8837 ISaGRAF embedded controller. Offering a vast platform to implement any IEC-1131 language, the I-8837 introduced a flexible and modular solutions, which would enable users to rely on a familiar control protocol, while implementing a vast array of diverse commercial-off the shelf I/O componentry, to custom meet their needs!

With the aforementioned hardware in mind, ICP DAS was left to carefully select a SCADA solution to work in conjunction with the immense data acquisition process at hand. After careful consideration, ICP chose to implement Indusoft's cutting edge "*web-ready*" HMI solution, due to its flexible and user friendly format. Indusoft's solution would allow users to effectively access real-time data, trends, graphs, and process information from either a local HMI or from any remote, web-enabled device!

### Required System Architecture

1. System would need to be capable of monitoring and controlling multiple processes including: waste development treatment, organic wastewater treatment, acid/alkali liquid treatment, and sludge treatment.
2. The I-8837 would require a simple to read, easy to understand local HMI
3. The entire system and network would need to be ModBus protocol compliant
4. System would need to be capable of implementing alarms, and real-time data acquisition for local and remote use.

# Waste Water Treatment System Flow Chart



## Implemented Features

1. Use standard Modbus RTU as communication interface, via Indusoft HMI
2. Easy use graphical user interface (GUI) implemented on all local touch screen based systems
3. E-Stop capabilities upon alarm trigger
4. System is fully controllable/accessible from local work stations or from remote locations
5. Robust control capabilities offered by ISaGRAF development suite, allows user to create a total control solution for further system updates



With a robust combination of reliable embedded software, and modular hardware architecture, the ICP DAS I-8837 allows Waste Water plant engineers a stable platform to monitor and control their installations, while saving time and money via precision process control!