



Application Story: ISaGRAF Embedded Controller for Battery Measurement

ICP DAS Embedded Controllers Battery Measurement Application

ICP DAS controllers are powerful embedded controllers. With 80 Mhz CPU and powerful features like PID control, motion control, local data logger, dial-up modems, it can be used in machine and process control. ISaGRAF is an robust IEC 1131-3 standard embedded software allowing the customers to program by their own favorite languages. This highly integrated hardware and software solution provides a technology foundation that facilitates accelerated application/product development and accelerates time to market. Designed to build for machine and process control applications, ICP DAS' ISaGRAF version of controllers enable the development of multiple configurations and distributed systems in a networked environment. The customer chose ICP DAS I-8817 controller, an ISaGRAF version of ICP DAS controller, because it surpassed the quality assurance tests for flexible communication, powerful features and proved to be the best priced solution.

One of ISaGRAF's customers is an SI company called HungYu Automation, located in Kaohsiung 350 kilometers South of Taipei. The company utilizes the ICP DAS I-8817 to its full capacity and is very satisfied with its results.

The telecom company's necessity to monitor power and security requires the use of the ICP DAS I-8817 for battery measurement. Forty (40) RTU Input Channels by 10 units of I-87013 to monitor temperature, four hundred and eighty (480) High Speed Analog Input Channels by 60 units of I-8017H to monitor voltage and fifty (50) D/I signals are continuously measured. The combined, and gathered data is measured by thirteen I-8817 controllers in different locations.

An "OPC Server" running on Windows 2000 Pro requests all data from these thirteen I-8817 controllers through RS485 Modbus Network. Via OPC Server, the data is sent to its remote PC running Iconics, HMI software.

The next part of the process involves the battery temperature and voltage readings which are sent to two (2) I-8817 controllers via the Fbus, which is a controller to controller data exchange bus.

Also the local data is displayed by two operating systems, Touch 506, beside the two (2) I-8817 controllers, which read out the temperature and voltage through RS 232 Modbus.

Please see the diagram for a visual representation of the process.

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