China Steel Corporation Supervisory Control System and Surveillance

Recently, ICP DAS was given an opportunity to assess both, the durability of the new WinCON programmable automation controller, as well as the extreme versatility of embedded partner; Indusoft's, web-ready HMI. The application (Inside Hsinchu city's busiest steel mill) would prove to be not only physically demanding on the controller, but would also place a great deal of accountability on the WinCON, in regards to precise industrial control, and vital data acquisition. Ideally, the system needed to be flexible in a multitude of aspects; capable of monitoring, and maintaining all vital manufacturing temperatures within the plant, as well as providing real time remote surveillance for both supervisory staff, as well as plant security. Another pertinent stipulation of the project was that the customer needed a redundant emergency shutdown system, capable of local and remote access, in the event of a plant emergency. Another key factor involved in the integration was the hostile operating environment in which the hardware needed to be installed.

For this particular integration, ICP DAS chose to implement a series of WinCON W-8739 programmable automation controllers. Equipped with: a 206Mhz Intel Strong ARM CPU, 64MB SRAM, 32MB Flash Memory, 16kb EEPROM, real time clock, 10/100 Base T Ethernet port, VGA port, dual PS/2 ports (for keyboard and mouse integration), as well as, a 128Mb compact flash, USB 1.1 port, and Windows CE 4.1 pre installed, the WinCON offered a flexible and reliable, Windows based platform to carry out the plant's industrial control needs. With the control portion of the installation complete, ICP DAS focused on implementing a defined surveillance network, capable of visually monitoring the entire plant via a network of ICP DAS NS-205 Ethernet switches, and IDView network surveillance cameras.
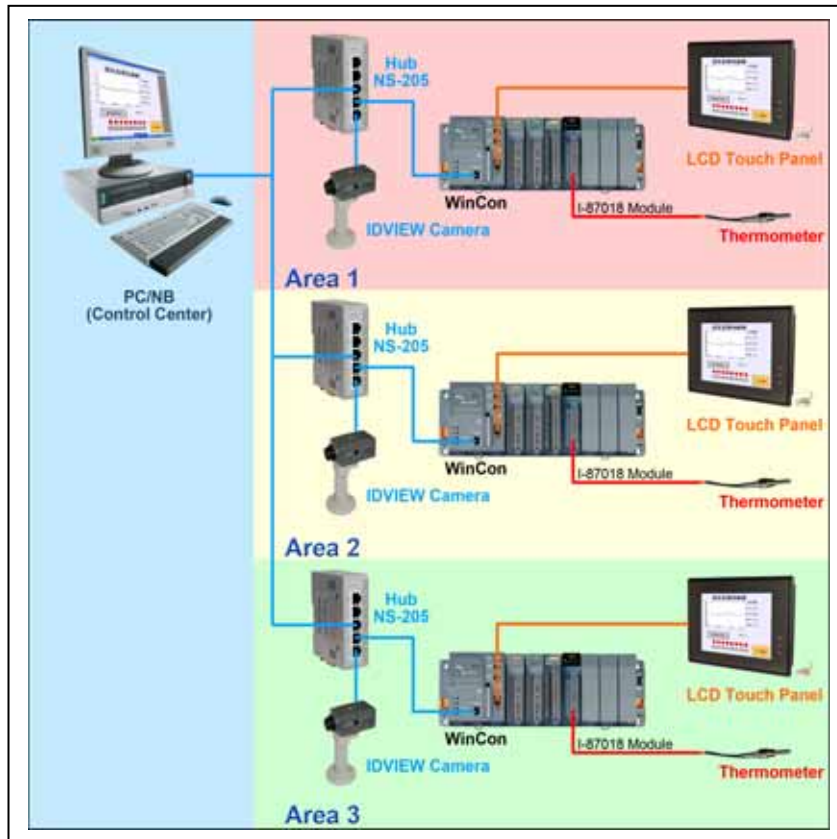
ICP DAS's WinCON programmable automation controller offers a highly stable and precise platform, capable of supporting robust I/O solutions, as well as powerful embedded SCADA solutions. By allowing local and remote control as well as visual surveillance, ICP DAS's installation allows the ultimate in plant security and safety!

System Features
- **Local HMI & Remote Web Based HMI Package**
- **Real Time Visual Surveillance via IP camera network**
- **Integrated MySQL Database**
- **Local Touch Screens for system maintenance and diagnostics**

System Structure

- **Hardware:** WinCon-8739 + I-8017 I/O, NS-205 Ethernet Switch
- **Software:** InduSoft Web Studio

Display in Control Room

Local Display