

**Application:** Industrial Visual Communications System

**Objective:** Reducing downtime by improved visual communications and present OEE information and general announcements.

**Client:** Automotive parts supplier, with over 30 work cells providing Roll Mill, Spot Welding, Robotic Welding and Press functions.

**Requirement:** Using a large LED Marquis, display Operator pages and General Announcements. During production time, display Work Cell Operator pages to the skill trade sorted by the time active. During the breaks the system will display General Announcements and OEE information.

**Data Flow:** The OEE and General Announcement information is read into the system from the Ethernet network file server in a CSV file format. The Work Cell pages are read, using Ethernet communications, from an AB ControlLogix PLC. The ControlLogix PLC is communicating to the work cell PLCs, as a data concentrator, to signal the Operator pages for skilled trades.

**Implementation:** The application was developed on the LED Marquis, on board, Windows XP eMbedded processor. Four (4) LED Marquis were used, each communicating through its Ethernet port to the ControlLogix PLC. The LED Marquis represent one of two (2) zones in the plant. The PLC information included a register for the Work Cell, Skill Trade needed, the number of minutes on call and the zone where the Work Cell resides in the plant. Because the Work Cells are moved from zone to zone a register in the PLC is used to signal where the Work Cell is.