CASE STUDY CAW-012

AIR TRAFFIC CONTROL CENTRE - MONITORING AND VISUALISATION OF MAINS POWER DISTRIBUTION SYSTEMS.

SCOPE OF SUPPLY.

- System Design and Specifications.
- PLC and Win-CC Software.
- Hardware and Software validation.
- Offsite simulation and testing.
- Onsite commissioning and validation.
- Training and after-sales activities.

SYNOPSIS.

The end user operates an extensive mains distribution network with over 1,300 dual sourced switching devices. Condition monitoring is via 6,500 digital I/O with additional facilities for serial network protocols.
A flexible visualisation and alarm/event monitoring system was configured as an extension of Siemens Win-CC SCADA, this enabled the end user's technicians to reconfigure individual monitoring channels without invoking software change control at the PLC level.
The PLCs also operate an independent back up annunciation system.

TECHNICAL DESCRIPTION.

The system inputs were configured in a pair of Siemens S7-400 PLCs with distributed Profibus I/O systems.
1,500 input channels are able to cope with a range of different switching devices, and these can be displayed as a variety of different animated icons at the SCADA level.
Weirgrove Automation developed software tools to allow the large Win-CC tag database to be generated automatically, using database information supplied by the end user. This eliminated data entry errors and allowed the system to be quickly validated with the latest configuration.