

CASE STUDY: Kempton Park GAC

Project Description

The purpose of this project was to provide new “off-the-shelf” hardware to replace obsolete equipment, namely the CMAC unit and a PLC-5 VME processor. These two items provide the complete communications interface between the motors and the other plant control hardware.

A pre-existing control system was based around PLC-5 hardware and a Factory Link SCADA system. A CMAC unit used to provide a serial interface to several intelligent MM2 motor control units that were used to control motors for the furnace.

The detail of the previous communications architecture was largely un-documented, making document creation, to compliment the new system, an important part of this project..

There was no new process control for this project and only the pre-existing communications functionality was replaced.

The scope of supply for the system consisted of the following: -

- A new SLC-500 rack was installed in close proximity to the existing VME-bus chassis
- The supply and installation of hardware, to include new Allen Bradley SLC-500 including rack and PSU
- The supply and installation of Prosoft Modbus interfaces and communications cabling
- PLC design, configuration, software programming and testing to provide the overall control philosophy
- Provide a test specification document for approval
- Set up test system comprising of Factory Link SCADA workstation running reactivation plant project, DH+ network, SLC5/04 with modbus card, modbus link, PLC5/80 running main plant code and 2 off MM2 drive units (supplied by TWUL)
- 100% IFAT system
- Provide a 1 day CFAT to sample demonstrate the IFAT
- Installation activities during winter shutdown
- Site presence for plant start-up support & testing early 2008
- 1 day training course
- As built O&M



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