



PT. INTEGRA TEKNIK ASIA

Engineers Provider - Control and IT-embedded

PROJECTS BRIEF PROFILE

PROCESS CONTROL

PERTAMINA BP (ARCO)

East Java Gas Pipeline

Involved Products :

- . Baker CAC RealFlex SCADA Software w/ QNX 4 operating system
- . Baker CAC 6532 RTUs. Daniel Flow Computers (Gas Metering Station)
- . JRC TDMA PTP and PTMP 1.4 GHz Digital Microwave Radio

Scope of Services :

- . Database, Graphics, and Scripting development on RealFlex
- . Interfaces (RS232) and Protocols (Modbus ASCII / RTU) setup
- . RTUs installation (at Offshore Plant, Onshore Receiving Facilities, Block Valve Stations, Junction Stations, and Metering Stations)
- . RTU logic programming

Process Control :

PID loop to keep the Gas Pressure in the pipeline on the defined range, and activate the booster pump(s) whenever required.
ESD and PSD interlock with F&G Detection system.



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PROJECTS BRIEF PROFILE

PROCESS CONTROL

CHEVRON-TEXACO (CALTEX)

Balam and Bangko Process Control and SCADA

Involved Products :

- . Fisher Rosemount DeltaV DCS at Gathering Station (GS) and Water Cleaning Plant (WCP)
- . OSI PI Historian
- . OPC Server for ROC protocol (Spartan) and Modbus protocol (Matrikon)
- . Fisher ROC364 RTU at Well Test Stations
- . Keltronics and Vortex ESP Controllers at Oil Producer Wells
- . CAC 8800 Beam/Rod Pump Controllers (RPC) at Oil Producer Wells
- . Bentley Nevada Vibration Monitoring Controllers
- . MDS 97xx series Single Channel 900MHz Digital Radio

Scope of Services :

- . Database, Graphics, and Scripting development on DeltaV
- . setup of Oracle Database, PI Historian, and OPC Server
- . Network, Interfaces, and Protocols setup
- . Setup and Installation of ESP Controllers and Rod Pump Controllers
- . Setup and Installation of ROC364 RTU at Injection Wells and Test Stations
- . Radios and Feeders/Antennas installation, tuning and re-direction
- . Interface to Bentley Nevada Vibration Monitoring Controllers
- . Migration from SY/Max PLC to DeltaV Controller at Balam WCP
- . DeltaV Controller and ROC364 RTU logic programming

Process Control :

Process to carry the Oil and Water to from Wells to Skimming Tank, then its separation to Surge Tank (Water) and Shipping Tank (Oil), and the Injection Back of Water to Injection Wells. Loopback Control (PID) and Process Interlock (to control pumps and control valves) are performed by Smart Transmitters (Foundation Fieldbus), and the rest by DeltaV Controller.



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PROCESS CONTROL

CHEVRON-TEXACO (CALTEX)

Kota Batak Process Control and SCADA

Involved Products :

- . Wonderware InTouch Factory Suite 2000 SCADA/MMI software with Modicon Quantum PLC at Gathering Station (GS) and Water Cleaning Plant (WCP)
- . MS SQL 2000 and Oracle 8 Database
- . InTek OPC Server for Modbus protocol with Controllers Template
- . GE Multilin MCC Controllers
- . Bentley Nevada Vibration Monitoring Controllers
- . Keltronics and Vortex ESP Controllers at Oil Producer Wells
- . SCADAPack RTU
- . MDS 97xx series Single Channel 900MHz Digital Radio

Scope of Services :

- . Database, Graphics, and Scripting development on Wonderware InTouch
- . setup of MS SQL 2000 Database
- . Network, Interfaces, and Protocols setup
- . Setup and Installation of ESP Controllers and SCADAPack RTU
- . Radios and Feeders/Antennas installation, tuning and re-direction
- . Modicon Quantum PLC process control and interlock programming

Process Control :

Process to carry the Oil and Water to from Wells to Skimming Tank, then its separation to Surge Tank (Water) and Shipping Tank (Oil), and the Injection Back of Water to Injection Wells. Loopback Control (PID) and Process Interlock (to control pumps and control valves) are performed by Modicon PLC.



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PROJECTS BRIEF PROFILE

PROCESS CONTROL

KODECO OFFSHORE MONOPOD PLATFORMS ESD, PSD, and Choke Valve Control

Involved Products :

- . GE Fanuc Intellution iFix
- . Control Microsystem SCADAPack RTU
- . ISaGRAF IEC 61131-3 Programming Software
- . Multiphase Flow Meter
- . RFI 2256 2.4 GHz Single Channel Digital Radio Data
- . Solarex Solar Cell Panels and Morningstar Controller
- . Optimisation OM-1510 LCD and Keypad Panel
- . ASCO Solenoid Valve for Electric control to Pneumatic

Scope of Services :

- . Database, Graphics, and Scripting development on iFix
- . setup of Modbus OPC Server
- . Network, Interfaces, and Protocols setup
- . Setup and Installation of SCADAPack MTU/RTU at six platforms
- . Radios and Feeders/Antennas installation, tuning and re-direction
- . Interface to Multiphase Flow Meter
- . SCADAPack RTU logic programming for ESD and Choke Valves

Process Control :

- . Interlock for Stepping Control of Choke Valve by monitoring the upstream and downstream pressure on each production line
- . Interlock of ESD control



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PROJECTS BRIEF PROFILE

PROCESS CONTROL

INDONESIA BULK TERMINAL

ESD, PSD, and Choke Valve Control

Involved Products :

- . Citect MMI software
- . Koyo PLC Direct
- . Ladder Logic Diagram Programming Software

Scope of Services :

- . modification, re-tuning, and additional Database and Graphics on existing Citect MMI
- . setup of Citect Modbus protocol and fixing of historical and alarm system
- . Koyo PLC Direct ladder logic programming

Process Control :

- . Direct Load and Magnets Monitoring interlock on coal conveyor



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PROJECTS BRIEF PROFILE

PROCESS CONTROL

PERTAMINA DEPOT MANGGIS

Terminal and Truck Loading Automation System

Involved Products :

- . OMEGA Electronics TA Software
- . Smith AccuLoad
- . Rotork MOV and Rotork Packscan Controller
- . Enraf Entis Tank Gauging System
- . Weighbridge System
- . Entry and Exit Card Reader

Scope of Services :

- . software system and controllers configuration
- . protocol and interfaces
- . instruments work

Process Control :

- . Automatic Truck Loading on pre-defined product (P, K, or S) gantry, pre-set volume, and pump interlock
- . Ship unloading process to the Depot Manggis Tanks