

# Control System For Pipeline Tap-off Point

**SIRIUS** success story...

OIL & GAS

Indian Oil Corporation Limited owns and operates a marketing depot at Hasimara. At Hasimara a tap-off from the existing Guwhati-Siliguri Pipeline is provided for providing petroleum products to the marketing depot.

The control system consists dual redundant Windows 2000 based SIRIUS SCADA software on dual processor architecture. A dual redundant fault tolerant LAN provides highly reliable and fail-safe operation.

The control system provides facilities like remote controlling of MOVs, PCVs, flow metering, for pipeline operations at the station.

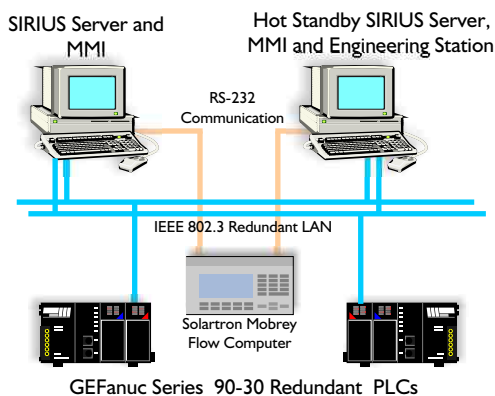
A Solartron Mobrey make flow computer is also installed for flow computation and product batch detection. SIRIUS interfaces with the flow computer on Modbus protocol over a RS-232 communication link.

SIRIUS is configured to handle a total of 100 nos. inputs and outputs. Application-specific sequence control logics are programmed for performing PID control, interlock conditions checking, downtime calculations, product batch logging, etc.

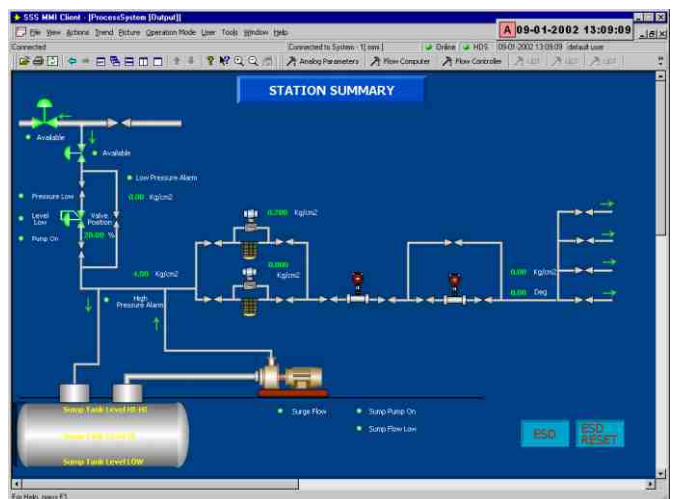
**...Dual redundant Windows 2000 based SIRIUS SCADA on dual processor architecture**

**...Dual redundant fault tolerant LAN for fail-safe and reliable communication**

**...Data acquisition on GEFanuc HCT, MODBUS**



Two nos. of GEFanuc Series 90-30 PLCs are used for data acquisition and control. The two PLCs are configured to run in redundant mode. The PLCs communicate with each other and the I/O devices on the Genius Bus. SIRIUS communicates with these PLCs using GEFanuc's proprietary host communications toolkit (HCT) over a dual redundant, fault tolerant Ethernet LAN. The PLCs interface with equipments like pressure transmitters, temperature transmitters, etc.



The project scope included design, engineering, testing, and supply of redundant SIRIUS SCADA Software licenses, SCADA system hardware, Programmable Logic Controllers, pressure transmitters, temperature transmitters, flow computer. The scope also included training of personnel of Indian Oil Corporation Limited.

The project was successfully commissioned in January, 2003.