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|  | **2007** |
|  | **Success Stories** | |

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# motion.jpg

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http://tbn0.google.com/images?q=tbn:3lCQXVT8BFkdqM:http://www.sundancedigital.com/Partners/Masterclock.jpg

[](http://www.rockwell.com/)

**Preface:**

SSM InfoTech Solutions (P) Ltd. was introduced in the year of 2001 with just 5 energetic and enthusiastic team members. We are very aggressive towards challenging integrations and technology revolution. **The seed by which we have started to grow; now having green branches and exploring its root on globe**.

We are mainly in the business of Industrial Automation, system Integration and software services. We are based at Surat (Gujrat, India) and sales network at Baroda, Jamnagar, Pune and Banglore. Our continuous efforts and nature of struggle to success the dream of our customers create several mile stones in the field of services and solutions which results in the terms of our own customize products. Our Brand Name X-Force spells Extra Force and having following potential products:

* **Alarm Information and management system(AIMP/AMS)**
* **Energy management System (EMS)**
* **Data acquisition Software & Data logger**
* **Calibration management system**
* **Laboratory Information management system/Gas chromatograph Software**
* **Telephone call management system**
* **Utility/Power Plant Data Centre**
* **Plant Information Management System(PIMS)**
* **Large Display Software: LED, Plasma Display**
* **Weigh Bridge management Software**
* **Modbus Gateway**

Our exponential increasing strength and popularity forced **Wonderware (USA), Advantech (Taiwan)**, **Rockwell Automation** to appoint their authorized partner in India.

**We have successfully executed more than 100 orders at Reliance alone in the year 2004.** These jobs are mainly Turnkey PLC projects, SCADA, customized software, Hardware, Networking, and Integration of different systems.

Sudip Vidyarthi

(Managing Director)

Projects carried out at Reliance

# PE PLANT SCADA System/DCS Operator Station

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SSM InfoTech has provided SCADA system on Siemens Teleperm DCS system for PE DTA plant. The Wonderware based Operator station has been installed about 0.5 km away from plant to integrate with main control room.SSM InfoTech has carried out DCS/PLC programming, Interface, communication card configuration. Operator Station consists of following features.

* Graphics,Trends,Alarms,Realtime and Historical trends
* System Security controls to disable use of standard windows functions
* Configuration of communication modules
* High level of redundancy and reliability

**Order ref.:HS4/3524881**

**Contact Person: Mr. S N Desai, VP(Inst)**

# PTA PLANT Wonderware based SCADA System

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SSM InfoTech has provided SCADA system solution consists of Rockwell SLC 500 series PLC system and Wonderware software for PTA plant thermal Oxydiser. The Operator station has been installed about 0.4 km away from plant to integrate with main control room. SSM InfoTech has carried out PLC programming, Interface, communication card configuration. Operator Station consists of following features.

* Main operator station inside PTA control room and local operator station at Thermal Oxydiser control room.
* Graphics,Trends,Alarms,Realtime and Historical trends
* System Security controls to disable use of standard windows functions
* Configuration of communication modules
* High level of redundancy and reliability

**Order ref.:HS4/3528773**

**Contact Person: Mr. Satish Gianchandani, AVP(Inst)**

##### ETP PLANT DATA ACQUISITION AND CONTROL SYSTEM

SSM ITS has hooked up all 8 panels inside below areas and made a very low cost data acquisition and control system based on Advantech IO modules and Wonderware software.

**1.** ETP 1

**2.** ETP 2

**3.** ETP2 – AUGMENTATION

**4.** PTA-PRETREATMENT-1

**5.** PTA-PRETREATMENT-2

We have provided complete design, hardware and software for this system. The system is having various facilities i.e. graphic visualization, real-time and historical trends, maintenance screen, alarms etc.

The whole project was completed in just 15 days time. This is was the first milestone towards high level of integrated automation movement going on at Hazira.

**Order ref.:HS4/3519964**

**Contact Person: Mr. Harish Tamboli, Sr.GM(MEG-Inst) plant**

# PP PLANT SCADA System

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SSM InfoTech has provided SCADA system solution consists of Siemens PLC S5 and Wonderware software for PP Extruder plant. The Operator station has been installed about 0.7 km away from plant to integrate with main control room. SSM InfoTech has carried out PLC programming, Interface, communication card configuration. Operator Station consists of following features.

* Main operator station inside PP control room and local operator station at extruder control room.
* Graphics,Trends,Alarms,Realtime and Historical trends
* System Security controls to disable use of standard windows functions
* Configuration of communication modules
* High level of redundancy and reliability

**Order ref.:HS4/3528830**

**Contact Person:Mr.Neward Harpalani,VP(Inst)**

##### Wonderware based SCADA system for DM plants

The operation of three DM Water Plants at CPP(power plant),Reliance was based on various SCADA packages i.e. Intellution,IC 2000,Controlview along with Allen Bradley,Modicon quantum PLCs. SSM InfoTech has carried out all necessary programming required with above PLCs.

SSM InfoTech has replaced all HMIs with Wonderware InTouch HMI. The job involves complete engineering (Graphics Development, Alarm configuration, Testing etc.) of SCADA development. SSM InfoTech is integrating all DM water plant to reduce operation cost.

**Advantages of Wonderware InTouch HMI**

* Better Graphics with 3-d View giving the feel of Actual Equipments and Locations
* Better Alarm and Trend Display
* History for Longer Period
* Automatic Report Generation
* Redundancy of nodes
* Maintenance management

The new system’s performance and ongoing support from SSM InfoTech Solutions team has been so good that Reliance has standardized wonderware for all feature SCADA requirements.

**Order ref.:HS4/3511032 Order ref.:HS4/3518965**

**Contact Person:Mr.S N Desai,Vice President(Inst)**

##### PLC up gradation at DM plant

The operation of DM1 Plant at CPP(power plant),Reliance was based on Yaskgawa U84 PLCs.SSM InfoTech has jointly carried out a project to upgrade U84 PLC to Quantum PLC with L & T. The job involves program migration, additional programming required with new quantum PLC.

**Contact Person: Mr. S N Desai, Vice President (Inst)**

##### Development of Wonderware software for PTA Bulk Handling Plant

Reliance Industries has expanded the storage system for PTA bulk handling system. The system supplied by Coperion was connected with Modicon Quantum PLC.SSM InfoTech has developed and commissioned Wonderware InTouch HMI system along with report generation and graphic visualizations.SSM InfoTech is providing local support.

**Contact Person: Mr.Gianchandani,AVP (Inst)**

# Time Synchronization for all ABB DCS Systems

Reliance Hazira plant is having 15 Number DCS Systems supplied by ABB and many other control systems. Each DCS System is working independently for respective plant. Since each DCS System is using their own clock, there was no synchronization of time between different DCS systems. There could be even time drift in system clock over a period of time.

SSM InfoTech offered a solution to Reliance using centralized time server based on Linux Platform. All DCS systems are acting as a client and polling time from one common server at regular intervals.

Advantages of Time Synchronization

* Analysis of plant parameters to get an exact occurrence of events.
* Reconciliation of products involving more than one plant
* Studying Alarms during plant trips.
* Strengthening of Decision Support Systems.

This was rated one of the most critical and important job at Reliance Hazira since it involves all the DCS systems of complete plant.

**Order ref.:HS2/3516816**

**Contact Person:Mr.S N Desai,Vice President(Inst)**

##### Development of Wonderware software for Blow Egg Plant

Reliance Industries has expanded the system at PTA Blow Egg. The system supplied by Coperion was connected with Modicon Micro PLC.SSM InfoTech has developed and commissioned Wonderware InTouch HMI system along with report generation and graphic visualizations.

**Contact Person: Mr.Gianchandani,AVP (Inst)**

## **Centralized Console for Programming and Monitoring Allen Bradley PLC**

CPP Plant at Reliance is having number of Allen Bradley PLC with Redundant Processor rack facilities. Each PLC is using a local computer for PLC programming and program monitoring. Locations of all PLC rooms are far from each other and also with a distance from plant control room.

SSM InfoTech offered a solution using 16 Port Selection Switch and Line Drivers such that monitoring and Programming of all PLC can be done using only one PC from the control room.

Advantages of Centralized Monitoring station for 16 PLC

* No requirement of separate computer for each PLC
* Fast Action in case of problem because of proximity to control room
* No requirement of maintaining PLC program for each computer

This job has immediate Return on Investment(ROI).It has saved lot of down time and the same was presented in the Instrument meet in the presence of RIL Hazira, Director Mr.Kohli.

**Order ref.:HS4/3515638**

**Contact Person:Mr.S N Desai,Vice President(Inst)**

GC Analysis Viewer for Ambient Air Monitoring system

PVC and VCM plant at Reliance have ambient air monitoring system supplied by ABB. They were using old DOS based package with many limitations. Also the system was not working properly and getting hanged many times in a day.

SSM InfoTech developed communication driver for ABB Make Gas Chromatograph and developed windows based software with latest features.

#### Advantages of GC Analysis Viewer

* Reliable System for Data Collection, Display and Report Generation
* Automatic display of new alarm on main screen
* Fully user configurable with the facility like selection of fonts, selection of color and Value for Alarm limits, field selection for various reports etc.

**Order ref.:HS4/3516736**

**Contact Person:Mr.H M Desai,GM(PVC-VCM plant)**

##### X-Force Alarm Management System at MEG1,MEG2, MEG3,PTA1,Terminal, PE, VCM Plants, CP 8 & 9

X-Force Alarm Management System is a very powerful product developed by SSM InfoTech and presently installed at most of the plants at Reliance Hazira. This system is very much useful for DCS system and It replaces any serial or parallel printer connected with that DCS. It also gives the state of art technology for Alarm Management.

# Advantages of X-Force Alarm Management System

* No requirement of printer for alarm and report printing
* Saving of stationary, printer ribbon/cartridges
* Best Analysis Tool for Problem Identification and thus saving huge amount by avoiding production loss
* System with the latest features like
  + Frequency Analysis
  + Bar Graph Analysis
  + Notification to Pager, Phone, Mobile in case of emergency alarm
  + Exporting the Information to other application such as Excel, Word
  + Automatic mailing of alarms and Reports
  + Remote access of on-line alarms and history on X-Force Client or Web Browser
  + Wonderware Factory Suite Integration
* Industry Standard Database (SQL, Oracle, Access) for Alarms Storage
* No changes required at existing system
* Four Level Security Management
* Fully customizable as per the end user’s requirement

M/S ABB has appreciated this system and standardized for all alarm management requirements.ABB has also placed order for Reliance Hazira requirements.

**Order ref.:HS4/3517199**

**Contact Person:Mr.Harish Tamboli,Sr.GM(MEG-Inst) plant**

**Centralised Historian (IP21) connectivity/Interfacing Solutions**

Reliance is having AspenTech IP21 centralized historian at Hazira Plant. We have been giving our expertise services to interface various control systems,softwares,HMIs with Centralised IP21 Historian. We have team for interface and driver development. We have developed interface for various DCS systems to historise data for long period.

**X-Force Alarm Management System at CPP(Patalganga) & PFY Plant**

X-Force Alarm Management System is also very popular at Patalganga.

**Order ref.:ME0/3083282**

**Contact Person:Mr.C L Rathore,(Sr. GM-CPP plant)**

# Calibration Management Software

Calibration Management is a comprehensive database software package designed for companies that must maintain calibration records under strict quality guidelines. Calibration Management Software assists in maintaining the full cycle of calibration management.

SSM InfoTech has made real-time calibration management system by interfacing Fluke 5500 calibrator with National Instrument GPIB communication card. The system automates whole calibration procedure and reduces calibration time.

# Main Features of Calibration Management Software

* Generates the Calibration Schedules
* Tracks History of Equipments
* Maintains Calibration Records
* Auto Input Template Saves time of Entering Calibration Records
* Generate Various Reports (Summary Report, Schedule Report, Detail Calibration Report, History Report etc.) as per the Customized Format
* Prints Reports to Screen and other Industry Standard Formats (Text, CSV, MS Word, MS Excel, HTML etc.)
* Sends e-Mail of Reports and Schedules directly from the Software
* Different Levels of Security for Authorization of Various Functions
* Easy to Use with excellent search Facility of Required Information

**Order ref.:HS4/3521373**

**Contact Person:Mr.S N Desai,Vice President(Inst)**

# Disk Duplicating Software

We have supplied a very innovative disk duplicating system, which duplicates any hard disk irrespective of type,size,and partition.

**Order ref.:HZ1/3074960**

**Contact Person:Mr.S N Desai,Vice President(Inst)**

# Fire Panel SCADA System

SSM InfoTech has developed interface with Aritech Fire Panels and provided Fire Alarm system for entire Hazira plant involving more than 25000 tags. This helps to effectively monitor and analyze fire Alarms and respond to emergency situation.

SSM InfoTech also provided alarms to central Fire alarm system by hooking up Zellwagar firepanel via Intellution software.

**Contact Person:Mr.Shetty/Mr.Tajendra Kumar,VP(Inst)**

# Fire Panel Alarm-Events logging System

SSM InfoTech has developed Fire Panel Alarms-Events logging system at MEG Plant. This helps to effectively monitor and analyze fire Alarms.

**Contact Person:Mr.Harish Tamboli, Sr.GM(MEG-Inst) plant**

# Library Management System software

SSM InfoTech has been developing Library management system software for Reliance Hazira central Library.

**Order ref.:HS6/3526539**

**Contact Person: Mr.Merchant(Learning centre)**

# Telephone call logging and Billing Management System software

SSM InfoTech has been developing Telephone call logging and Billing Management System software for Reliance Hazira communication department..

**Order ref.:HS2/3527103**

**Contact Person: Mr.Shetty, Sr.GM(Power Electronics & communication)**

**Data Centre-Centralised Data Storage and Reporting system**

CPP plant at Reliance is distributing various utilities i.e. Power, water, gas steam etc.SSM is executing a data centre job to integrate all plant data and generate reports based on data from various DCS and AspenTech IP21 centralized historian at Hazira Plant. The system will generate report based on calculations of various utilities at different plant. This helps to calculate consumption of each plant along with costing details.

**Order ref.:HS4/3529473**

**Contact Person:Mr.B K Mishra,AVP (CPP)**

**ETP-3 Plant Control System**

Reliance Hazira was introducing a new ETP Plant for which they need Control System having DCS facilities. SSM ITS has Introduced Control System for the plant which carried out all the facilities like DCS. We have integrated Wonderware Software with Schneider PLC.

**Software and Hardware Used with the system are:**

* Schneider’s Hot Stand-by PLC
* Schneider’s Standalone Premium PLC
* Redundant Industrial Application Server to provide redundancy over I/O server.
* Wonderware InSQL Historian to provide history for long duration.
* Wonderware InTouch based SCADA System to provide live mimics of plant and remote controlling facility.
* Optical Fibre networking to hook-up all the PLC’s and Old Data Acquisition system with a single place controlling and monitoring system.
* X-Force Alarm Information Management System to manage the plant alarms and provide shift and day wise alarm analysis and reporting.
* X-Force Report Software to provide daily production and totalizer report and its auto emailing to concerns.

We have provided complete design, hardware and software for this system. The system is having various facilities i.e. graphic visualization, real-time and historical trends, maintenance screen, Alarms, History, Hot Redundancy on all levels etc.

The whole project was completed in just 60 days time. This was the second milestone towards high level of integrated automation movement going on at Hazira consecutively by SSM ITS.

**Features Appreciated from Customer end:**

* Live mimics are helpful to understand the present situation of system and controlling action.
* Long time history and reports are helpful to enhance plant performance.
* Auto PSF Cycle operation made easy the recycling process and selection.
* Quick response of command in to the field which avoid mistakes.
* Less manpower are consumed even capacity of plant increases day by day.
* Event history facilitates to find out the root cause of any failure.
* IP-21 Historian Connectivity.
* Web base report, which can be accessed from anywhere by Reliance Network.
* Redundant System for SCADA provides high availability of System.

**Order ref.:**

**Contact Person: Mr. Harish Tamboli, Sr.GM(MEG-Inst)**

**AIR FEED Compressor (ASU1) Control Panel**

Reliance had procured Air Separation Unit from Hitachi, Japan; after 15 years of operation the system was just a black box for them and operation people were facing problem day by day. After our risky efforts Reliance has taken a chance to upgrade it with us. This is first time in History of Reliance to upgrade a proprietary and crucial system without OEM.

SSM ITS replaced complete control panel by Hot Stand-by Redundant PLC based Control system.

**Features of System:**

* System facilitates Sequence of Event logging to find out the root cause of system trip.
* Database for logging has been defined in to PLC it Self and it can store up to 500 events.
* Time Synchronization has been established among PLC, Expert Event Module and Panel HMI.
* Transferring data from PLC to DCS provides history and remote monitoring of Compressor operations.
* Redundancy at CPU, Power Supply and Communication provides full proof system.
* Implementation of “2 out of 3” logic reduces false trip due to instrument failure.
* System provides open ended connectivity with Modbus TCP/IP.

**Order ref.: HZ1/3352924**

**Contact Person: Mr. Harish Tamboli, Sr.GM(MEG-Inst)**

**POPP R&D Plant Control System Revamping**

POPP R&D Plant at Reliance Vadodara Manufacturing Division (Former IPCL, Vadodara) was running on MOD-300 DCS and MOD-30 Controllers. The system was always creating problem and the DCS system has gone expired. SSM ITS has studied the entire system instrumentation and process. SSM ITS accepts the turnkey solution supply challenge within 75 days period and fulfill all the requirements of customer.

SSM ITS has provided PLC, Wonderware based SCADA system, IP-21 historian connectivity software, Alarm Information Management System and X-Force Reporting Software to complete the needs of Instrument and Process executives.

**Features with System:**

* Single Station control and monitoring with live graphics, real time/ History trends, IP-21 Historian Connectivity.
* Process Value history logging with user selectable time duration and logging scan period, on demand which is available in excel format.
* No hard push buttons, indication lamps and selector switches are used.
* Alarm annunciators are replaced by popup windows on SCADA Station.
* User selectable Auto/On demands report emailing.

**Order ref.: BIO/7005594I**

**Contact Person: Mr. V. U. Vora GM (POPP-Inst)**

**Engine Room Alarm System Revamping at RELGAS Nayantara**

Reliance has many ships to carryout gases from one location to another via Sea. REL GAS Nayantara is one of prestigious ship with Reliance. The ship has Alarm Monitoring System supplied by Microprom; Germeny which creating frequent problems and got obsolete. Reliance has not any documentation or information about the system; they are just operating the system from last 15 years. After continuous efforts and root level shipping instrumentation and process study; we have got success to design a new system which is providing enhanced features than old one.

**Importance:**

The system has been revamped without any major change in shipping infrastructure. We have just removed the old hardware and installed new system retaining all the field wiring and cabinets.

**Order ref.: MY2/3471863**

**Contact Person: Mr. R. Sharma (Shipping)**

**Emergency Siren System PLC System:**

SSM ITS has provided Emergency Siren System to RIL, Hazira complex with auto Alarm Siren facility on every Monday at 10:00 AM. The system creates alarm during any abnormality and synchronized it’s time from time server.

**Fire Pump PLC System**

Fire Pump Stations at RIL, Hazira was operated with very old relay and timer based system, which forces to maintain the system manually. It forces extra manpower cost towards company and lose towards output against cost.

SSM ITS has revamp and commissioned the complete system within 24 hours and make it auto functional.

**Advantage:**

No extra manpower is required to maintain the system on daily basis. It saves the manpower and cost to the company.

**PTA-3 PLC NETWORKING:**

SSM ITS has provided common programming and troubleshooting station for PTA-3 Plant distributed PLC systems. Activities done to complete the job are:

* Installed the ELOP-II (HIMA PLC), Concept2.6 and ProWorx NXT softwares on PC.
* Fiber Optic networking among PLC located on different locations.
* Installed and powered on the 4 Networking Panels (PTA-3 Control Room Panel, Blow Egg Control Room, TO Control Room, DRM Control Room) and checked the communication of all these PLCs on single PC at Main Control Room.

**PVC Catalyst compressor Control System:**

PVC Plant at Reliance Hazira having two Nos. of Catalyst Compressor which are standby for each other. Bromine is using as catalyst during process. A single mistake can burn bromine worth in millions. SSM Has provided MTL Modules for analog signals and integrates it with PLC to perform the logic. Two standalone PLC systems are working as standby for each other with respect to compressor.

**Features:**

* PLC is working as master who is receiving data from Slave MTL Module and writing on Master Device DCS via MODBUS Gateway.
* Data Integration with DCS facilitates to retain history of value and trends.

**Dahej Gandhar Baroda (DGB) Pipeline SCADA :**

SSM InfoTech executed DGB pipeline SCADA project worth Rs.36 lacs.

**Highlights:**

* Eight Rockwell PLC5 RTUs were hooked up using OPC server.
* Two IAS servers.
* Three Wonderware InTouch nodes.
* Redundant InSQL Historian Servers.

**Order ref.:** **3343845,** **3599259**

**Contact Person: Mr. Kartik Fojdar GM (Inst.)**

**X-Force AMS at Dahej**

We have provided AMS to various Dahej plants i.e. GCU, EPRU, EOEG, OSBL,N2O2

**Contact Person: Mr. Kartik Fojdar GM (Inst.)**

**N2O2 SCADA at Dahej :**

We have supplied N2O2 SCADA for Elliot Air Compressor. System is having connectivity with Six Siemens S5 PLC.

* Better Graphics.
* Better Alarm and Trend Display
* History for Longer Period
* Redundant CPU communication

**Order ref.:** **3642437**

**Contact Person: Mr. Mukesh Trivedi GM (Inst.)**

**PTD SCADA at Dahej:**

We have supplied PTD SCADA for Terminal area. The system is connected with wide range of Tank Gauges of Enraf and Endress and Hauser for level monitoring.

**Order ref.:** **3544633**

**Contact Person: Mr. Mukesh Trivedi GM (Inst.)**

Foxboro GC Analysis Viewer for Ambient Air monitoring system

PVC and VCM plant at Reliance Dahej have ambient air monitoring system supplied by Foxboro. They were using old QNX based package with many limitations. Also the system was not working properly and getting hanged many times in a day. SSM InfoTech supplied windows based Wonderware software with latest features.

#### Advantages of GC Analysis Viewer

* Reliable System for Data Collection, Graphics Display and Report Generation.
* Automatic display of new alarm on main screen.
* Better Trending facility with longer history logging period.

**Order ref.:** **3612142**

**Contact Person: Mr.Mukesh Trivedi, GM(PVC-VCM plant)**

**PSA unit SCADA :**

SSM InfoTech executed UOP supplied PSA SCADA upgradation project.

**Highlights:**

* Rockwell PLC5 PLC was hooked up using ABKT IO server.
* Two Wonderware InTouch nodes.

**Contact Person: Mr. Kartik Fojdar GM (Inst.)**

**HDPE Bagging SCADA:**

The system is having Wonderware software hooked up with following hardwares.

• Garvens Check weigher

• Chronos Speedac

• Siemens PLCs

• Metal detectors

We have brought complete Bagging plant monitoring and operation from main HDPE control room. Above hardware was having serial communication connectivity. We connected above hardware over Ethernet Fiber connectivity for better and reliable performance.

**Contact Person: Mr. Kartik Fojdar GM (Inst.)**

**CCTV Project at GCU & EPRU :**

SSM InfoTech executed CCTV project at Reliance Dahej GCU and EPRU plants.

**Highlights:**

* Control of camera movement pan/tilt /Zoom.
* Flare Monitoring.

**Contact Person: Mr. Kartik Fojdar GM (Inst.)**

**GAIL IPCL gateway Project at Dahej :**

SSM InfoTech executed gateway project to connect GAIL and Reliance Dahej plants.

**Highlights:**

* Daniel GC data made available to DCS at GAIL and Pipeline SCADA (Reliance).

**Contact Person: Mr. Kartik Fojdar GM (Inst.)**

**VCPVC TEMPERATURE MONITORING SCADA:**

VCPVC Control room at RIL, Vadodara (Former IPCL) was facing trouble to operate different makes of controllers installed on different places. SSM ITS has integrated all the controllers; MTL MUX Modules and ADAM DAS Modules with a single Wonderware based SCADA Station. This was special project worth **Rs.35 Lacs** considering involvement in hazardous area.

**Highlights:**

* Devices supporting different protocols are integrated with single station. i.e.

Honeywell and Yokogawa make chartless recorders (17 Nos.), Foxboro 760 Controllers (20 Nos.), MTL Receivers (9 Nos.), ADAM DA Modules (30 Nos.).

* Monitoring and control from a single PC based System.
* IP-21 Historian connectivity.

**Turbo Generator Control System SCADA**

In power plant at Reliance Baroda ,two turbo generators (TG-1 & TG2) are installed and working each with capacity of 12.5 MW We have supplied SCADA for the same.

* We have provided Advantech Adam Module based Data acquisition system hooked up with Turbo Generator measurement signals.
* We have connected Adam module with Wonderware SCADA System for Online monitoring of parameters, Report generation and data storage for RIL, Vadodara (Former IPCL).
* We have used server client Architecture of Wonderware.

**Contact Person: Mr.Punnet Vyas, GM (Inst) ,IOP**

# Energy Management System at LDPE plant Baroda

SSM InfoTech has provided Energy Management System to LDPE plant to effectively monitor Energy consumption of all electrical loads for the complete LDPE plant at Reliance Baroda. The system is interfaced with Enercon(Conserve) load managers.

**Contact Person: Mr.** **Bhattwadekar, LDPE Plant**

**Wonderware training at Reliance Jamnagar**

* We have provided Wonderware software training at Reliance Jamnagar for Instrument Dept.

**Work Order Ref.:3569625**

**Contact Person: Mr.Y P Buch , Sr.VP(Inst)**

**Gateway at Nagothane**

We have provided embedded gateway for Yokogawa DCS for communication Interface with Mark IV speedtronics system. This is a redundant communication interface.

**Contact Person: Mr. Sunder, VP (Inst.)**

**X-Force AMS at Nagothane**

We have provided AMS to various nagothane plants i.e. PP, LDPE, CPP, LLDE,CPP

**Contact Person: Mr. Sunder, VP (Inst.)**

**X-Force AMS at Patalganga**

We have provided AMS to various PG plants i.e. EC,PFY,FDY,UTILITY,CP7

**Contact Person: Mr. K K Jain/Mr.Chandalal Rathod (Inst.)**

**Polyester Projects**

1. **Jobs Done with PSF Plant(Inst):**

* PSF Draw line Wonderware stations:

SSM ITS has provided Wonderware InTouch based SCADA stations for four Draw Machines in different Draw Lines. For all these machines Wonderware is integrated with Siemens S-5 PLC.

* PFF Draw Line Wonderware Station:

On the basis of successful performance with wonderware in all four Draw Machines RIL decided to change the SCDA system of Draw Machine-5 installed in PFF area. SSM ITS has provided new SCADA system for this machine integrated with Siemens S-5 PLC.

* Zimmer Draw Line Wonderware Stations

SCADA system supplied and installed by SSM ITS is always attracting users to replace their SCADA Systems by SSM ITS supplied Wonderware Based SCADA System. Zimmer Drawline operation fellow also feels so and SSM has established Wonderware SCADA Station for their ease of operation.

* Spinning Line Siemens PLC Interface with RSview.

Reliance procured new Rockwell PLC and SCADA system for its Spinning Line, now they have two different SCADA System and operation people feels to work with a single system. SSM ITS has hooked up Siemens PLC with Rockwell SCADA within two days.

* Spinning Yarn Detection Micro PLCs.

SSM ITS has provided four Schneider Micro PLCs for four spinning lines for yarn detection.

* Utility plant Wonderware station CP10.

SSM ITS has provided a complete system which provides Live Graphical View, Real Time/Historical Data and Trends with IP-21 Historian Connectivity.

* Draw Lines Operation Connectivity using Gateway with Centralized IP21 Historian:

SSM has stabilized connectivity of Draw Line DAS System with central IP-21 historian using data interface gateway.

* Baler Datamax Barcode Scanner Communication with Siemens PLC.

Integration of this barcode scanner with Siemens PLC is telling our strength of system integration, because big players got failed in this job.

* Tub Feed Rockwell PLC 5  programming:

SSM ITS has programmed the logic of Rockwell PLC 5 for Tub feed application. This was to eliminate issues related to operation and subsequently all bugs were removed and made operation smooth.

* CP7,CP8,CP9,CP10,CP11 Alarm Management System for DCS

Maintaining old proprietary alarm printers take care of alarm history paper files and difficulty in searching an old alarm history was a big problem with Operation peoples. SSM ITS has provided X-Force AIMS system to avoid all the hurdles which were torturing the operation peoples.

Features with System:

* Soft Alarm History.
* On demand alarm search facility with date time and state.
* Alarm Frequency Analysis report generation and auto emailing.

# Contact Person: Mr. Dayalal Bhut GM(PSF-Inst)

# PSF PLANT PT Lab Panelmate replacement

# 

SSM InfoTech has replaced Panelmate/Panelview at PT Lab-PSF plant.

The original system has two GE Fanuc 90-30 PLCs connected with individual Panelmate displays. These displays were proprietary and having limited capabilities in terms of Graphic visualizations, History logging, trends etc. Also there is no network connectivity possible with this displays. In addition the procurement of spare Panelmate was also very costly.

The new system has overcome all these limitations and it is one time investment with no spare requirement.

SSM InfoTech is regularly replacing AB Panel View, Siemens OP and Panelmate displays with PC based open system.

**Order ref.:HS4/3526133**

**Contact Person:Mr.Anuj Gupta,PSF- plant**

##### SCADA system at PSF plant (Zimmer Polyster Fiber Line)

Reliance Industries is increasing polyester capacity and has awarded a contract to Zimmer Ag of Germany to build a plant at Hazira. Zimmer has supplied the technology, basic engineering and equipment and supervised the erection and commissioning activities.SSM InfoTech has developed Wonderware InTouch HMI nodes along with Siemens S7 PLCs. SSM InfoTech has got contract to carry out modification of InTouch application and to provide immediate local support.

**Order ref.:9903/CONST/W/855**

**Contact Person:Mr.Anuj Gupta/Mr.Qureshi, PSF Plant**

1. **Jobs Done with PSF Plant(Elect.):**

* Zimmer Draw Line Wonderware SCADA stations in CP9

SSM ITS has provided application development services at Drawlines supplied by M/S Zimmer.

* Zimmer Spinning Wonderware SCADA stations in CP9

SSM ITS has provided application development and communication interface related services at spinning lines supplied by M/S Zimmer.

* CP11 Motor Monitoring System:

Hooked up Motor Control System with SCADA System for Online monitoring of motor parameters, Graphics visualization, Report generation and data storage for RIL, Hazira.

* Energy Management System at PSF plant

SSM InfoTech has provided Energy Management System to PSF plant to effectively monitor Energy consumption of all electrical loads for the complete PSF plant. The system is interfaced with Alacrity and L & T load managers.

**Order ref.:HS2/3527633**

**Contact Person: Mr. Anuj Gupta/Mr.Qureshi (PSF-Elect.)**

1. **Jobs Done with POY Plant(Inst.):**

# NG3 Wonderware stations for conveying

SSM ITS has provided Wonderware software along with application development services at NG3 conveying plant supplied by M/S Coperion.

# NG3 Conveying PLC support

SSM ITS has been providing support towards Schneider PLC programming used for conveying application.

**Utility & CP1-2-3 Alarm management system**

SSM ITS has been providing X-Force alarm system for Yokogawa DCS.

**DCS hardware support**

SSM ITS has been providing hardware support for Yokogawa DCS hardware i.e. Engineering station.

**Contact Person: Mr. Bhavesh Devmurari (POY-Inst.)**

1. **Jobs Done with POY Plant(Elect.):**

# Energy Management System at POY plant

SSM InfoTech has provided Energy Management System to POY plant to effectively monitor Energy consumption of all electrical loads for the complete POY plant. EMS implementation elect Dept. used to take manual readings of hundred of load managers installed at NG3 & POY . . It was really not practical to take reading of all load managers manually at exact timing (4:00 a.m.) So energy readings taken for 24 hours (4:00 a.m.-4:00 a.m.) were not accurate and sometimes it was not possible to take readings because of other maintenance activities.

* The system is interfaced with various types of Load managers i.e. Alacrity Krycard PLMD3HV , Krycard Allen 6200, L & T ER300N,SATEC
* EMS provides real-time monitoring of load managers parameters, trending, reports facilities.
* Specialty: It was first attempt to provide connectivity of load managers over existing MIS fiber Optic Network to save serial communication cabling cost.

**Order ref.:HS2/3527633**

# Doff Monitoring System

SSM InfoTech has supplied 30 Doff Monitoring Display for spinning lines at POY plant.

**Order ref.:HS2/3525234**

# Condition monitoring software

SSM InfoTech is working on condition monitoring software which will help to remove log books and allow Log data access to multiple people.

* Conditioning monitoring system will be based on Microsoft.net technology using ASP.net platform and Microsoft SQL Server as database server.
* Portal will be having following functionality at large,

A. Daily Report Management

B. Conditioning Monitoring System

C. Databank

# Industrial workstations for Spinning operation

SSM InfoTech has supplied 25 Industrial Workstations for spinning lines at POY plant.

**Contact Person:Mr.Kuldip Dhar,VP(Elect-POY)**

1. **Jobs Done with IT /MIS**

SSM ITS has been maintaining AUTOMATIC BOBBIN HANDLING SYSTEM / SALMOIRAGHI ABH SYSTEM/AUTEFA BALE HANDLING SYSTEM. System Data Management through Computer Room Workstation for following Systems.

* Salmoiraghi Automatic Bobbin Handling System
* Autefa Automatic Bale Handling System
* New Salmoiraghi Automatic Bobbin Handling System
* New SMC area automation system
* New Auto Warehouse System (Bales and Bobbins)

**The connection diagram of Level-1 and Level-2**

Alpha-2

tu0       ln1      ln0

Alpha-1

tu0       ln1      ln0

                                      Alpha Network

                                       Level-1 Network

**PLC**

**PLC**

**PLC**

                                       Level-2 Network

**WS**

**WS**

**host**

**WS**

**Contact Person: Mr. Barun Mukhopadhyay (HOD-MIS)**

**Various IT Contracts at Hazira Site:**

* **IT Infrastructure Service Contract at Reliance Hazira MIS:**

We are managing Comprehensive Maintenance of IT Assets where we are maintain Desktop, Servers , Workstation, Laptops and All types of Printers.

* We are maintaining near about no. of 2500 Desktops, 75 Laptops, 625 all types of Printers & 50 no. servers and workstation.
* Regular Schedule based PM of all the Printers and service of all desktop which include Antivirus pattern updates, Critical patch Update & System performance checkup.
* Server Administration Job : Data Backup, Data Control & Management, User ID Creation, Right allocations, Password Resetting, Policy maintenance, Regular Server logs Checkup & Physical connectivity of all the accessories connected with the Servers.
* Network Management Service: Structure networking Projects, Break down Network calls, & new network Infrastructure development.
* Assets management: Complete record of MIS-Assets is also being carried out by us . Incorporate new assets name tagging & Provide assets No., Record maintain of all the assets at MIS, internal Movement of Assets Updating in system, Reassigning assets to users, gate pass making & Monthly Billing.
* Third party Coordination : Other vendor coordination is also managed by us where we have to coordinate with outside vendors for various jobs including Call Logging, Supply chain management & coordination with third party vendor.
* **Plant Automation and Instruments related Computers, Workstations, Field Pc’s, Servers & Hardware Services Contract at CES:**

We are maintaining Plant Automation and Instrument related Assets at Central Eng. Service (CES) Department. We are maintaining near about 350 assets at CES. All the assets (Desktop, Laptops, IPC, Workstation & Servers) which connected with instruments ,DCS,PLC,SCADA are very critical where we have to give them 24x7 support also the Applications which are running on it is very critical so we have to take extra care to maintain them by Regular PM of Assets including Printers, system & Application log analysis and update the critical logs to Concern, Virus pattern Updates & Critical patch update of Operating systems and Applications.

Assets management Job is also carried out by us where we are doing Asset naming and tagging, records of the entire Assets & Material gate pass making. Third party calls management and Coordination also including in the Service. We have to co ordinate with third party for Hardware & Applications related Support and Service.

**Various Migration Projects for IT at Reliance Hazira:**

* **Mail Clients Migration from Lotus notes to ZMail.**

We had successes fully carried over the Migration project of Lotus notes to ZMail. As per the Central authority of IT instructed to migrate the mail client we had trained our team to smoothly implement of this project. In this Project Job including Archive of Lotus notes Mails in Local system and backup of old mails Then configure web based ZMail clients also introduce user for it new features and operations.

* **Domain Migration from Local RIL Hazira to centrally IN. RIL Domain.**

RIL has implemented the Central Domain Policy for its all Sites where they are going to migrate their old Domain to Central Domain. The basic of this project to Maintain Centralizes common security policy for all the user and smooth IT operations managed by centrally.

We had success fully carried over this Project after giving Detail training to our Eng. as per Scheduling. Job Including Remove the PC from Old Domain then reconfigure with new In.ril.com Domain and Configure all the Application running on the machine.

* **Support during reputed audit activities.**

We have been providing our services during external audits from highly reputed organizations i.e. Damming, Dupont, CII.

* **Hardware Migration activities.**

We have executed following major activities.

* PC hardware replacement program.
* PC hardware upgradation program.
* PC Operating system migration program.
* Server Migration.
* Backup management.
* **Wireless Project.**

We have executed wireless project for Road Weigh Bridge and Guest house.

# Projects Carried out Other than Reliance

# NTPC,Kawas

# OPC connectivity with PI server Software

# SSM ITS provided OPC server for connectivity of centralog DDC with central OSISOFT historian.

# Calibration Management Software

We have provided Calibration Management to NTPC. The package will be web based so that reports and schedule can be accessible across the plant over Intranet.

# ABT-RTMS software -Energy Management System

We have been providing Energy Management System to NTPC to effectively monitor Energy generation, export and consumption for the complete Power plant.

# Alarm Management System

We have provided alarm and events management system for Cegelec Centralog DDC systems. System was legacy based printers very difficult to maintain. We have replaced all such printers with PC based Alarm management system.

# High Speed Switch Yard Event Logger System.

Revamp of Cegelec (Alstom) Switch Yard Event Logger System with Schneider Quantum PLC providing Time Stamping around 10 msec.

# Event Logging System for Generator(GT).

Provided Event Logger System for Gas Turbine with Premium PLC providing Time Stamping with 50 msec.

# Siren PLC project

# We have provided Schneider Twido PLC for Siren application.

# LED Message Display

# We have supplied LED scrolling message display .

# Wireless connectivity project

Provided Event Logger System for Gas Turbine with Premium PLC providing Time Stamping with 50 msec

1. **ONGC,hazira**

# OPC connectivity with Various Liquid & GAS metering system

# SSM ITS provided OPC based connectivity for various liquid and Gas meters integration.

* The system is based on Wonderware InSQL Server , active factory, Portal and FS gateway.
* Redundant servers.
* We have designed and developed Fiber Optic Networking job to hook up all meters located over entire Hazira complex.
* We have integrated road and rail weigh bridges.
* We have provided terminal servers.

**Ref.: Mr.Anil Dhawan (ONGC)**

# Lean Gas Compressor PLC

We have supplied lean GAS compressor PLC based on Schneider Micro Platform.

**Ref.: Mr.Sonar DGM (ONGC)**

# Weigh Bridge management Software

We have provided weigh bridge management system consist of Sanmar (SWL) weighing system and our own software. System work in redundancy for two weigh bridges.

**Ref.: Mr.Sundli (ONGC)**

# Gateway for Yaskgawa PLCs

We have supplied Gateway for Yokogawa DCS to connect Yaskawa PLCs over memobus protocol.

**Ref.: Mr. Sonar (ONGC)**

# Gujarat State Energy Generation ( Hazira )

# Punch Item Management Software

Steag Encotech India maintains GSEG Power Plant at Hazira site. SSM InfoTech has provided a solution to Steag Encotec by developing customized software in Visual Basic to efficiently manage the installation testing and equipment handover to steag encotec by providing tracking and in-depth reporting of punch item entries.

Advantages of Punch Item Entry Management Software

* Computerized / Paperless punch item reporting.
* Tracking of punch item based on open / complete status.
* Provision for scanned drawing attachment with punch item entry.
* In-depth reporting based on any user-defined criteria in standard or detail formats.
* Quick access to search any punch item entry with user-friendly interface.

Online Messaging Services on Telephone network

SSM InfoTech developed GSM based online Process monitoring system for GSEG.

* System is PC and Mobile based.
* SMS being sent while important event occurred.
* User can send query using mobile to know status of analog parameters.

1. **IFFCO Kandla**

SSM InfoTech developed a Wonderware based HMI for Foxboro and Honeywell Controllers for their Fertilizer manufacturing facility at Kandla.

InTouch software was provided with following functionality,

* Graphics visualization
* Real-time Trends and Historical trends
* Alarms, Events
* Screens, History and Alarm Printing.
* Excel Reporting.

1. **Birla Cellulosic, Kosamba**

Online Density Measurement System

SSM InfoTech designed and commissioned online density measurement system for Measurement of Density and Mass of Caustic received at Birla Cellulosic. The scope includes supply and commissioning of Data Acquisition Modules, interface them with the business application(Oracle ERP)and development of complete business application including report management.

Communication Interface between Packing Machine and Oracle Database

SSM InfoTech developed communication interface between Autefa Packing Machine(Forte) and Oracle based ERP. Earlier they were doing manual entry In to ERP system. Now we are able to send various data i.e. weighing, moisture etc. from Field devices to ERP system automatically.

Barcode Label printing Software

SSM InfoTech developed a software which collects products data and prints it on customized labels. These labels are applied on Products in warehouse before sent to customer.

Citect HMI replacement for CS2 acid plant

SSM InfoTech developed a Wonderware based HMI for Modcell DCS system. This also included Mod30 controllers. We have provided extensive functionality compare to old Citect Application. Whole project was completed in just seven days.

Replacement of Rockwell Panelview and Siemens OP

SSM InfoTech developed a Wonderware based HMI to replace Hardware based HMI from Rockwell and Siemens.

Replacement of Control view at Power plant

SSM InfoTech developed a Wonderware based HMI to replace Rockwell Controlview HMI software connected with Allen Bradley PLCs

Data acquisition System for Energy Centre Power Plant.

SSM InfoTech designed and commissioned Data acquisition System at Birla Cellulosic. The scope includes supply and commissioning of Data Acquisition Modules, interface them with the SWL server and development of complete application including report management..

# Gulf Oil, Silvasa

##### Weighing System Interface

SSM InfoTech developed communication interface with Avery Make Weighing Machine and integrated it with business application.

1. **Alchem Laboratory Ltd.**

SSM InfoTech developed a Data acquisition system connected with Oxygen

Analyzer with Alarm, Trends, Graphic visualization facility.

# Calibration Management Software

We have provided Calibration Management to NTPC. The package will be web based so that reports and schedule can be accessible across the plant over Intranet.

# Aventis Pharma, Ankleswar

# Calibration Management Software

Calibration Management is a comprehensive database software package designed for companies that must maintain calibration records under strict quality guidelines. Calibration Management Software assists in maintaining the full cycle of calibration management.

# Main Features of Calibration Management Software

* Generates the Calibration Schedules
* Tracks History of Equipments
* Maintains Calibration Records
* Auto Input Template Saves time of Entering Calibration Records
* Generate Various Reports (Summary Report, Schedule Report, Detail Calibration Report, History Report etc.) as per the Customized Format
* Prints Reports to Screen and other Industry Standard Formats (Text, CSV, MS Word, MS Excel, HTML etc.)
* Sends e-Mail of Reports and Schedules directly from the Software
* Different Levels of Security for Authorization of Various Functions
* Easy to Use with excellent search Facility of Required Information

1. **Remi Metals,Jhagadia**

SSM InfoTech has developed a Wonderware based HMI for VD VOD plant.

The SCADA package is connected with Siemens PLC. It has following features.

* Graphics visualization
* RealtimeTrends and Historical trends
* Alarms,Events

1. **Larsen and Toubro Limited (L & T)**

SSM InfoTech has provided Wonderware based SCADA systems for Larsen and Toubro Limited (L & T) Project.

1. **Coperion / Waeschle**

SSM InfoTech has been working for Coperion for a Wonderware based SCADA system for various Reliance Projects.

1. **GIPCL**

SSM InfoTech has supplied Mobile messaging system for online process parameter monitoring and important event notification.

1. **ABB**

M/S ABB has standardized X-Force Alarm management system for their DCS projects.

1. **Yokogawa**

M/S Yokogawa has standardized X-Force Alarm management system for their DCS projects.

1. **Micro Inks Vapi.**

# Liquid dispensing automation system

1. Designed and Implemented Automation and Control System for Ink Dispensing System at Morkhal Plant.

Components used are,

* Hot Standby Quantum PLC as a Master Control station.
* 1200 I/Os under single rack.
* Momentum PLC for individual Station Control under flame proof housing.
* Magelis HMI for Local operator Control.
* Momentum Weighing Module.
* Wonderware HMI for Supervisory Control, Monitoring and Reporting.

Following functionalities were highlight of the system,

* SAP Interface for a complete automation starting from PO download to control system to finished product data update to SAP.
* Redundant Master Control with CPU, Power Supply and Communication redundancy which provided higher equipment availability.
* Ethernet Communication between Master Control Station and Local Stations providing faster access and accurate control.
* Momentum Weighing System providing accuracy and resolution of 100 grams in a range of 2 Tons.

# Automation and Sequencing of HT Motor Operation at Micro Ink Vapi Plant

Designed and implemented automated sequencing of HT motor control system. System is very useful to prevent sudden increase load on captive power plant.

# Calibration Management Software

We have provided Calibration Management to Microinks Vapi. The package is client server based. We have salient features of scheduling, reports etc.

1. **Loading PLC System at ULTRATECH CEMENT, Rajula, Bhavnagar**

SSM ITS has upgraded Old Modicon 984 PLC system with Newer version Quantum within 4 days only. All the Logic Programming, Panel Wiring, HMI Development and commissioning activities has been completed during this short period.

1. **Projects done by Binary Automation in association with SSM InfoTech**

* SCADA System Upgrade for ERW Pipe Plant at Welspun Gujarat, Anjar.
* Integration of various PLC in one SCADA at ERW Pipe Plant at Welspun Gujarat, Anjar.
* Automation Training Provided at Welspun Power and Steel Ltd.

1. **IOCL**

SSM ITS has supplied various X-Force Alarm Management system to IOCL Baroda,Panipat and Mathura plants.

1. **HPCL**

SSM ITS has supplied various X-Force Alarm Management system to HPCL Vaizag plant.