

Customer Profile

Lyondell Chemical is part of the multi-billion US based company operating in the chemical, oil and gas industries with manufacturing facilities located all across the world.

Contact Details

Contact Name/Tel./ Email will be available on request.

Project Statement

Lyondell appointed ABB to upgrade their system and process for their PO11 Plant located in Rotterdam, Netherlands.

Rolta was awarded a SPP&ID project on creation of dumb AutoCad Drawings to Smart Plant P&ID v 3.0 by Intergraph PPO, Huntsville, USA



The Project

The project consisted in creation of 373 AutoCAD P&IDs by re-drawing into intelligent SmartPlant P&ID format.

In addition, large amounts of customization of symbols were carried out by incorporating the best practice, corrections and suggestions recommended by INGR / ABB.

This project was executed in an online “Work share “environment considering critical nature of the project, to ensure complete synergy and effective communication.

Configuration of Workshare setup between Rolta, Intergraph and ABB/Lyondell for publishing of drawings for review and approval was a major feature of this project.

Basic inputs for the creation were in the form of AutoCAD P&ID'S, which belongs to 2 areas and 16 units of ABB - Lyondell that are as follows:

Total number of input drawings received and area wise & unit wise drawing breakup is as follows:

Total number of P&IDs-373,

Area-10 includes

- Unit 100 – 13 PIDs ,
- Unit 200 – 11 PIDs
- Unit 300 – 22 PIDs,
- Unit 400 – 13 PIDs
- Unit 500 – 15 PIDs,
- Unit 600 – 29 PIDs
- Unit 700 – 11 PIDs,
- Unit 800 – 30 PIDs
- Unit 900 – 64 PIDs

Area-11 includes

- Unit 000 –16 PIDs
- Unit 100 – 41 PIDs
- Unit 200 – 7 PIDs
- Unit 300 – 26 PIDs
- Unit 400 – 46 PIDs
- Unit 500 – 25 PIDs
- Unit 900 – 4 PIDs

This workshare enabled the project to be executed in the shortest possible delivery schedule with weekly deliveries being made regularly. The entire project was completed without any glitch and the workshare environment enabled all concerned to communicate effectively and securely even though they were spread across nearly 20 different units.



Rolta leverages its strength and expertise in configuring and handling Internet-based networks and set up specific demilitarized zones (DMZ). Certain ports on the server were placed outside the corporate firewall to allow secure and authorized communication with other Host and Satellite sites across the Internet.

With this DMZ network implementation, servers placed outside the Firewall were locked down, so that only one IP address and one port was permitted to communicate across the Internet, enabling transfer of data between various databases at the host and satellite sites. Rolta’s e-security professional ensured that the Firewall configuration rules were as per International standard for security and followed the Best practice to ensure the highest amount of security while allowing maximum performance throughput.

Deliverables Generated by Rolta

- Migration of customized RDB from SPPID v 2.1 to SPPID V 3.0
- Creation of 373 intelligent SmartPlant P&IDs
- Item tag dll with procedure for registering Item tag dll
- Exception reports with BMPs
- Total Site and Plant backup of SPPID v 3.0 project

Project Status

Rolta successfully completed and the final project delivered all the drawings of two Areas as per schedule ABB – Lyondell Project execution was an unique experience for Rolta and Intergraph since it is the first commercial Project execution on workshare setup. Project was executed in shortest possible delivery schedule with weekly deliveries made through workshare to meet requirements of ABB.

