

Central Control Room at Sasol Improves Process Efficiency and Plant Safety



Benefits

Honeywell designed, engineered and configured a central control room for Sasol Solvents in Germany, improving process reliability and efficiency. The project was completed on time and budget offering Sasol the following benefits:

- Improved communication among DCS operators
- Flexible, prioritized workflow
- Better management of plant operations in critical situations such as emergencies or startups/shutdowns
- Improved safety due to better transparency of workflow processes and conditions
- Opportunities for optimization in the future with the new functionalities available
- Infrastructure to meet the stringent safety laws in Germany

Background

The Sasol Solvents plant in Moers, Germany is part of the global Sasol Solvents division. Headquartered in Johannesburg, South Africa, Sasol Solvents operates plants in South Africa as well as



Germany and supplies a wide range of solvents (alcohols and ketones) and co-monomers for the polyolefin market to customers throughout the world. Besides fine chemicals, the German

unit manufactures mainly oxygenated solvents, such as isopropyl and ethanol, in Moers and Herne for use in paints and varnish, detergents and defrosters, cosmetics and medicine.



The parent company, Sasol Limited, is headquartered in Johannesburg, South Africa. The global petrochemical company plays an active part in the Responsible Care program, the chemical industry's global initiative in which companies work together to continuously improve health, safety and environmental performance.

Challenge

One of the main objectives of this project was to bring all the control functions into one central control room (CCR) to facilitate better communication and coordination between the different operators and operations. The CCR was also expected to enable flexible and prioritized workflow especially during critical plant operations such as emergencies and startups/shutdowns. The most important requirement was that the CCR should be explosion-proof providing uncompromised safety and security to Sasol personnel.

The biggest challenge was the transfer of control functionality from the three old control rooms into the new CCR without extending the regular plant turnaround times. In addition, plant startups had to happen from the new facility without any disturbances.

Solution

The Sasol-Honeywell relationship dates back to the 1970s when Sasol procured its first Honeywell distributed control system (DCS). As a result of a long and successful relationship, Honeywell was the obvious choice as a partner to help create the new central control room. Honeywell's Experion® Process Knowledge System was installed as an upgrade to Honeywell's PlantScape system. In addition, the Sasol Solvents site also integrated a number of advanced applications and equipment such as Honeywell solutions for safety shutdown systems (FSC®), process history (PHD), advanced loop diagnostics (Loop Scout™), fast process communications (Fault Tolerant Ethernet), process event analysis (Event Analyst) and FOUNDATION Fieldbus. The Moers site has a single supplier strategy and uses Honeywell for all its automation needs.

The Honeywell team worked on the project integrating the different DCS network islands (this required complete network reengineering), setting up a DSA structure, implementing Honeywell's Digital Video Manager™, firewalls and remote service access. The Honeywell PHD, Loop Scout and Event Analyst were also integrated into the system providing a complete automation solution.

Honeywell helped Sasol protect its investments by leaving existing controller level equipment undisturbed and integrating the ABB displays and keyboards into Honeywell Icon stations. The functionalities and the reliability Sasol realized from this CCR project well justified the budget. The new CCR is sufficient for future plant expansions as well as integrating some of the remaining batch plants.

The CCR is now the ideal place for work allocation, improving maintenance workflow by reducing idle time of contractors and promoting increased safety by improving information exchange within the group of plant supervisors.

Honeywell is providing the Sasol site personnel with training on the network and Fault Tolerant Ethernet.

The close collaboration between Honeywell and Sasol, as well as Honeywell's ability to understand Sasol's objectives and deliver the appropriate technical solutions, made it possible to achieve Sasol's tight deadlines, and complete the project on time and on budget.

With the support of Honeywell, the Sasol Solvents plant in Moers was able to meet its objectives of centralizing control functions into one main central control room without causing any major disturbances in the process or in turnaround times.

More Information

For more information on Honeywell solutions, visit www.honeywell.com/ps or contact your Honeywell account manager.

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SS-07-21-ENG
October 2007
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