

# UCB standardises on single provider for DCS and MES to meet production challenges

## RESULTS

- Paperless operations with an integrated EBR for each batch.
- Release by exception principles shorten batch release process.
- Cross batches data are easily available for analysis and performance improvement.
- Manufacturing operations are fully controlled by one MES-DCS integrated solution.



## APPLICATION

UCB's bioplant manufacturing operation includes upstream and downstream processes as well as all the supporting processes for media, buffers and utilities. The plant produces bulk Cimzia® (certolizumab pegol), a drug which treats the symptoms of rheumatoid arthritis and Crohn's disease, which is sent to another site for formulation, fill-finish and packaging operations.

## CUSTOMER

UCB is a global biopharmaceutical company that focuses on neurology and immunology. To meet the growing demand for Cimzia®, UCB has designed and built a new biotech plant in Bulle, Switzerland. This state-of-the-art facility provides UCB with its first industrial-scale biotechnology production centre.

## CHALLENGE

One of the main challenges was to set up a seamlessly integrated solution to control the highly complex biopharma process within the two-year timeframe to design and build the plant. The process and equipment definitions and tuning were ongoing throughout the design of the manufacturing execution system (MES) and distributed control system (DCS) solution.

Given the challenge to reduce project risk, UCB decided to source one solution provider for the MES and DCS. It was necessary that the technical solution selected required minimum development effort while being flexible enough to allow changes and improvement to the recipes.

*It was imperative that UCB standardized on one provider that had a proven track record in implementing an integrated DCS and MES solution. UCB now have a solution that automates the reporting process and provides tighter process control to meet production goals.*

For more information:  
 DCS - [www.emerson.com/deltav](http://www.emerson.com/deltav)  
 MES - [www.emerson.com/syncade](http://www.emerson.com/syncade)



### SOLUTION

UCB decided that an MES installation with an integrated DCS would be the most appropriate solution because two independent systems would require engineering an integration layer within the system architecture. This would create additional work, add time to the project, and increase project risk. UCB also wanted to avoid compatibility issues caused by upgrades of independent systems.

UCB's supplier selection required a company with expertise and experience in implementing MES and DCS within bioplant environments. This would help to minimize project risk within the design, installation, testing and commissioning stages.

Using these criteria, UCB selected Emerson's Syncade manufacturing execution system and DeltaV™ distributed control system. Syncade integrates with the DeltaV system to facilitate operational activities and information flow from the plant floor up to the ERP system (SAP).

Syncade helps UCB manage the workflow processes using electronic work instructions, equipment status and material tracking, recipe-driven operations, automated weigh-and-dispense operations, and exception reporting. All information about the upstream and downstream processes is collected within the electronic batch record.

Electronic workflow management ensures that manual steps are performed according to the correct procedure and that documentation is complete. Reporting-by-exception capability – where only deviations from the norm are highlighted – helps to improve the efficiency of quality control.

The combination of Emerson's experience and the integrated systems minimized the integration engineering required, sped up the design and implementation phases, and provides lifecycle benefits in terms of system maintenance. The integrated MES and DCS have enabled reporting processes to be automated, allowing tighter process control for increased productivity.



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