

## Double production capacity with ABB upgrade ABB upgrades control system 80% faster

“ABB offered us fast delivery, the possibility of doing the job online without plant shutdown and a system that was already familiar to our operators,” says the customer. “These were the main reasons that drove us to go with ABB.”

When an Arabian Alkali Company wanted to upgrade the distributed control system (DCS) at their caustic soda plant, they presented ABB with a challenge: they asked for the new system to be installed very quickly, with less than 24 hours of downtime.

ABB met this challenge and successfully installed the first phase of the DCS upgrade in under a day.

Another key reason that the customer chose ABB is its dedicated support center in Jubail, which results in a fast response for the plant when it needs to obtain technical help from ABB service engineers. Other benefits that motivated the alkali company to select ABB: cost savings, on-site training and supervision during the online removal of the old system to ensure safety during the transition.

### Fast delivery

Before the upgrade, the Arabian Alkali company had a capacity of 150 TPD, running with a MOD300 Distributed Control System installed by ABB in 1996. The initial system had an Advant ES/OS, OS/IMS and an AC460 controller with approximately 460 I/Os of S100 type.

When the plant first approached ABB in 2008, their goal was to enhance their production capacity from 150 to 300 TPD by 2009. They wanted to accomplish this by upgrading their control system. ABB studied the existing system and proposed an optimal solution to be executed in two phases for ease of installation:

- Upgrade to Advant Unix stations (ES/OS & OS/IMS) with 800xA Human Machine Interface (HMI)
- Add an AC800M controller to meet additional plant demand

This solution required conversion from MOD to 800xA including evolution of Data Base from UNIX to AdvaBuild 3.4, Graphics and Environment from MOD to 800xA.



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### ABB provided:

- Installation & commissioning
- On-site training
- Engineering and programming
- Supervision during removal of old system
- Factory Acceptance Test
- Documentation

In 2008, the new system became successfully operational in the shortest time possible by shutting the live AC 460 controller for just 20 minutes, much less than the originally planned and committed time of 120 minutes. ABB made this possible by performing a complete check of the upgraded system before shipping it to the site and also by flawlessly planning the system set-up.

The customer is happy with the new solution because it increases the plant's productivity through efficiency improvements and provides accurate information to the operators.

This year, ABB is executing a second phase of the project to meet additional plant demand.

The customer says that ABB's lifecycle management evolutionary services were another strong factor in their decision to choose ABB. The plant will be able to operate both its legacy HMI and its new 800xA at the same time for up to 11 months. "Evolution really helps us get the latest state-of-the-art technology, which in turn will help us obtain more product features," explains the project manager for the Alkali plant.