S+ Operations’ intuitive Human Machine Interface (HMI) system significantly improves response time, flexibility and overall performance for UC Davis Medical Center in Sacramento.

University of California (UC), Davis Medical Center is a major academic health center located in Sacramento, California. It serves around 6 million residents across Northern and Central California, admitting around 31,000 patients a year to its wards with an additional 150 or so patient attending its level 1 trauma center, daily. To maintain the power needed to run the hospital and its emergency center, an integrated steam generating power plant that produces 25 megawatts (MW) of electricity operates night and day, 365 days a year. The plant has five emergency generators, each capable of generating 2 MW to ensure the operation of vital equipment in the event of catastrophic power failures.

The plant also supports eight centrifugal chillers (four centrifugal and four absorption) that generate chilled water for the medical center. To ensure the power plant continues to operate smoothly, the existing Conductor NT control console was replaced with S+ Operations, ABB’s latest control system operator station. By upgrading to S+ Operations HMI, UC Davis was able to transform its data into meaningful information and present it on new intuitive user-specific desktop displays.

ABB’s improved operating displays provided customers with an economical solution to upgrade the Conductor NT

<table>
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<th>Project name</th>
<th>UC Davis Medical Center upgrade</th>
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<tr>
<td>Location</td>
<td>Sacramento, California, US</td>
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<td>Customer</td>
<td>UC Davis Medical Center</td>
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**ABB solution**
- Complete upgradation of existing Conductor NT console into S+ Operations HMI
- Evolution without obsolescence policy allows customers maximum return of their investment

**System benefits**
- Seamless transition to new control system with ease
- S+ Operations was commissioned while existing console continues operating, minimizes risks and allowing operators time for transition to the new system
- Advanced engineering tool to convert the graphics lead to improved HMI response time, ease of use and reduction of associated operating system risks
console. It also provides their operations team with a familiar operating environment, at the same time adding important new functionality.

The new S+ Operations HMIs were commissioned while the existing Conductor NT consoles continued to operate thus minimizing customer’s risks, while allowing the operators time to become comfortable and proficient with the new system.

The transition to the new control system operator station was achieved seamlessly using the ABB engineering tool to convert the graphics and has already led to HMI response time improvement, better ease of use, and reduction of associated operating system risks.

The new upgrade integrated perfectly with Symphony Plus controllers, and could also be used with other ABB control families as well as third-party devices. ABB was selected for this project because the plant could be brought into a modern operating environment in the most cost-effective manner with low-risk.

At the hospital, operators need flexibility and fast response times to meet the ever changing conditions and variable power demands of the hospital.

By upgrading the existing HMI system at the UC Davis Medical Center to S+ Operations, ABB is able to help improve response time, ease of use and overall performance, which is part of ABB’s ‘evolution without obsolescence’ strategy that allows our customers to maximize the return on their original investment with new technology.

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