



Vallejo Water/Wastewater facility

Innovative thinking, M580 technology win project over Rockwell

Sometimes the usual approach won't win the job

- Paul Gunther and team were able to migrate a WWW facility by demonstrating our ability to port existing code from a Moore APAC to an M580 PLC, saving the customer time and money, before rainy season began
- By working closely with the customer, understanding their needs, and using out-of-the-box thinking, we won the job

Paul Gunther had two problems: he needed a new control system for the Vallejo Sanitation and Flood Control District (VSFCD) water/wastewater facility (WWW), and the famous November rains of California were coming closer every day—a deadline no change order or negotiation could alter—one imposed by Mother Nature. Since he couldn't do much about the rain, he instead set forth to solve the controls problem.

Outdated and unsupported tech

VSFCD had learned that their current system, 6-7 Moore APACs, was due to lose its manufacturer support in 2018. Faced with the greatly increased costs of maintaining an unsupported system, they decided to pursue migration to a modern controller. Initially the work was to be done by Rockwell, replacing the APACs with Allen Bradley PLCs, but the project was proving incredibly laborious. Manually recreating the control database was extremely time consuming, and the validation process—massively stringent in the WWW industry—would add more time, difficulty and expense to the project. VSFCD decided to call in Schneider Electric; Paul Gunther and team conferred extensively with VSFCD to fully understand their requirements, and weighed the options.

Out-of-the-box thinking a key factor

The problem was twofold: time was a factor as November and its heavy rainfall approached, and creating a control database from scratch was too time-consuming a



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process. Paul decided that suggesting a Foxboro DCS, the typical approach in this situation, would not fit the customer's needs. The team, instead, looked backward to move forward. The Moore APAC was based heavily on the Modicon PLC, considered the WWW standard in the 90s. Paul reached out to Schneider Electric experts: the control migration team in Montreal and Modicon WWW specialists in Italy. Together they devised an innovative, out-of-the-box approach that could satisfy the customer's requirements, save money and wrap up before November.



Save money and time—two precious commodities

The team pitched their idea to VSFCD: they could take the existing engineering code, automatically translate and directly port it over to a modern Modicon M580 PLC. This approach would mitigate risk, as the code was proven and already validated, saving hundreds of thousands of dollars in engineering costs. The migration could take place relatively quickly, minimize downtime, and be completed before the rainy season. VSFCD would gain a superior control platform that allowed them to move into the future secure in the knowledge they would receive the support they required for their operation. VSFCD agreed to become a beta tester of the brand new M580. The PO was issued in July, and all estimates show the project finishing on time.

Understanding customer needs is critical

When reflecting on the win, Paul Gunther cited his team's expertise and innovative problem solving, only made possible by closely working with VSFCD and truly understanding their requirements and challenges. Armed with this insight, the team was able to avoid a generic approach and deliver a tailor-made solution to the client—one that also provided a lower CapEx option and a superior PLC.



“Our relationship with VSFCD exemplifies how we are to able innovate on every level of an enterprise to help our customers meet their unique challenges,” said Jose Bonomo, vice president, hybrid systems offer management, Schneider Electric....

“The Modicon M580 will help VSFCD avoid time-consuming and costly validation checks during the control process upgrade. Not only does this reduce project risks, we think it will save months in installation time and thousands in engineering costs. And once it is in operation, it has the ability to reduce time to market and even process energy consumption, all while improving plant safety, reliability and efficiency. We are extremely pleased to be working with the VSFCD on this capital upgrade, and we are confident we will equip them with a control platform that is truly built for the future.”

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