



## Modicon Quantum Hot Standby System improves paper manufacturing reliability

### *Introduction:*

This customer was founded in 1927. They are a world leader in the manufacturing and distribution of pulp, paper, building materials, packaging, and related chemical products. In 1957 they began construction on the company's first pulp and paper mill. In 1994 they began investing over a \$100 million in the mill to reduce its dependency on wood chips and utilize more recycled material. Today the mill uses 60 percent recycled material. They employ over five hundred employees at the Toledo location. The company as a whole employs over 61,000 people at 400 sites in 11 countries.

### *Application:*

The application is a control system for the main pumps on the number two paper machine. These pumps provide the critical water for the process. The existing control process consisted of Modicon 800 series platform. They had one rack with a 984-685E with four remote I/O drops. The current network utilizes a single cable topology using RIO standards. The problem with this type control scheme is there is no safety net if something fails. This is a very important part of the process because without water they cannot make the pulp for the paper. If these pumps fail, the whole process shuts down.

### *Objective:*

The customer commissioned this project to increase the reliability of the process. With this being such a critical part of the process it was imperative to develop a control system that had a high degree of reliability and redundancy. One problem Schneider Electric faced was that the customer had made a corporate decision that any new project would have to have a competitive PLC product. They had no Modicon Quantum systems in the plant anywhere. The challenge was to educate the customer about the ease of integration with the current control platform.

### *Solution:*

The solution developed for this customer was to use a Quantum Hot Standby system utilizing the existing 800 series I/O. A redundant cable system using dual channel remote I/O heads on the processors and the drops was also recom-

### **INDUSTRY**

Pulp & Paper

### **OBJECTIVE**

Increase productivity and process reliability

### **SOLUTION**

Modicon® Quantum™ Hot Standby System

### **BENEFIT**

The project increased the reliability of the application and reduced down time and production losses.

mended. This would offer the reliability of a Hot Standby system and the redundancy of the dual cable system. The other issue that the customer had was the fact that he had no spares for the Quantum system so the Schneider Electric distributor provided spare parts at a discounted rate to allay their concerns. We needed to provide dual channel J890's for the five drops and change one of the 800 series racks. We also needed to purchase dual channel CRP heads for the Quantum's because the Hot Standby kits provided single channels. The customer also had concerns if their software was going to be compatible. After numerous discussions they decided to use our system in addition to a site license of ProWorx programming software. This project was developed in conjunction with a system integrator and the distributor.

***Benefit:***

This project has enabled a new spirit of cooperation between this customer and Schneider Electric and therefore has much broader benefits than the individual project. The customer was unaware of the new products offered by Schneider Electric and the competition had gained a foothold in this account. With this project we have reversed the trend to use a competitor's product on new projects and thus strengthened Schneider Electric's position with Georgia Pacific. The project had obvious benefits in increasing the reliability of the application. This will improve down time and thus reduce production losses.