ARC BRIEF

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RTP Provides a Valuable, High Availability Platform for Wellman Inc.

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Keywords

RTP Corporation, High Availability, High Reliability, Fault Tolerance, Cost Effective Software, Legacy System Replacement, Service and Support

Summary

Wellman started out with the usual list of "household" supplier names but found that none of them really matched up to their needs, so they broadened their horizons to include RTP

Wellman Inc. manufactures high-quality polyester products, packaging resins and polyester fibers. They needed to replace a 30 year-old legacy control system at one of their sites and wanted to move to a long term supplier strategy as they had several different legacy systems across the company at the time. They started out with the usual list of "household" names in the control system supplier domain, but found that none of them really matched up to their needs, so they broadened their horizons to include RTP. After a series of stringent tests at RTP's factory and lab, followed by visits to a couple of customer reference sites, the system selection team was able to convince their management that RTP should be Wellman's supplier of choice for their 5 year legacy system replacement project.

Background

With an extremely high demand on their production units Wellman's key requirements were a demonstrated high availability of the control system and the ability to implement upgrades without any downtime. They simply couldn't afford to shut the process down for the switchover or have any unpredicted shutdowns or failures. Wellman's requirements were onerous for any control system supplier, but the added need for personal support was very important to them. Additionally Wellman wanted a cost effective system without the additional upgrade and expansion fees that many suppliers now demand. Their aim was to find a control system they could use for all their future upgrades, expansions and legacy system replacements.

They also wanted the chosen system to be supplied as part of any future outside equipment purchased.

In summary Wellman had the following requirements:

- High availability
- High Reliability
- Upgradeable with no process interruption
- Cost effective products with personal support
- Customizable software
- No costly expansion and update fees

The Wellman team went through a selection process before presenting the pros and cons to their management.

The Selection Process

Wellman has many legacy systems including DCS Systems and PLCs. The team was looking for a system that could be used to replace all of these legacy systems and become the system of choice going forward. This first system would be the start of a 5-year replacement plan. They also had to convince a skeptical management team that RTP would provide all the needed systems and services despite being less well known than the major control systems suppliers. Following a remote selection process, the team decided that visits to RTP's factory and lab followed by customer reference visits would be needed to check that the system performance claims were legitimate and that RTP really could be a partner for Wellman. Several visits to RTP's headquarters and lab followed, where their performance claims were put to the test. The team then followed this up by visiting a number of RTP customer sites and putting them thorough the same rigorous process. A list of pros and cons was developed to convince the Wellman management that RTP was not only a viable solution, but also a good partner. After successful management presentation the team requested a quotation.

Why Was RTP Successful?

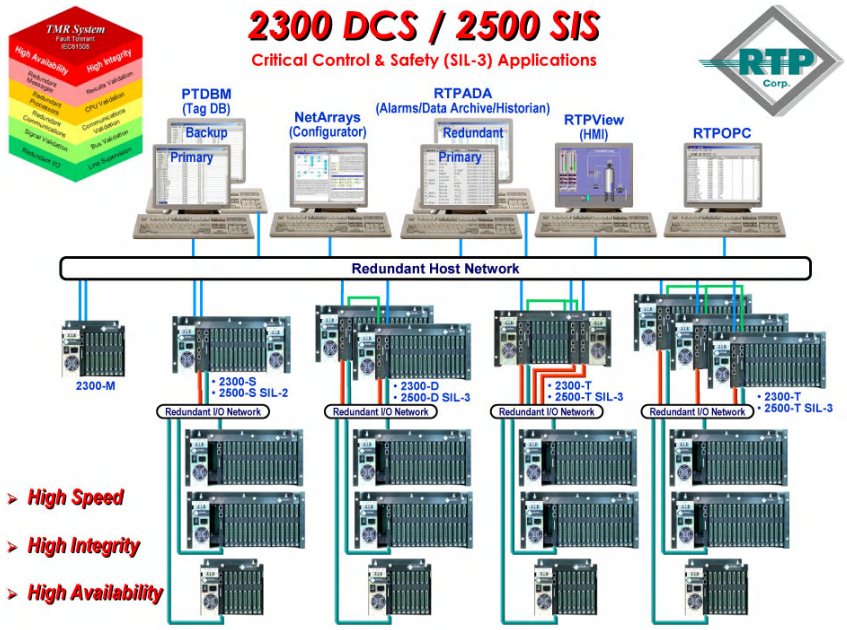
Wellman chose the RTP 2300 DCS with all the features of a DCS and the performance of a PLC, enabling one control system to satisfy all of Wellman's needs, previously being satisfied by a variety of control systems and PLCs. RTP also provides a very comprehensive software package –

NetSuite – providing all the basic necessities of a control system, but easily customizable to add features that are not available.

RTP was successful because they not only satisfied Wellman's very stringent system requirements, but also provided support which in the words of one of the team members was "just short of excellent".

System Architecture

The RTP 2300T Triple Modular Redundant system, chosen by Wellman, provides the highest levels of integrity and availability, and features data and communications validation with triple, dual, or common I/O, depending on redundancy requirements. The system can be configured with up to



RTP's SIS & DCS System Architecture

10,000 I/O points, which can be distributed over a wide area.

RTP also offers a wide range of I/O for all application ranges. Key features of RTP I/O include fast scan rates, 16-bit A/D precision, high Common Mode Rejection Ratio (CMRR), and over voltage isolation protection. RTP I/O communications cards support Modbus Master and Slave serial communications and Modbus TCP for connectivity to devices and other systems.

Since manufacturing the control hardware is one of RTP's core competencies, the company can keep its hardware costs down significantly, with a controller and I/O pricing structure that is more similar to that of the PLC market than the DCS market. When compared to traditional TMR systems, which usually command a significant premium, the price differential can be particularly significant.

Cost Effective and Easily Upgradeable Software

NetArrays	Configuration
PTDB	Tag Database
RTPView	HMI
RTPADA	Alarm & Data Archiving
RTPDTS	Data Trending

NetSuite Offers a Full Range of DCS Software Functionality with an Unlimited $6,000 Enterprise License

Wellman chose the triple redundant version of the 2300 DCS system to ensure the highest availability but also wanted the software to be cost effective and easily customizable by themselves and their third party integrator to allow the implementation of additional applications such as batch control. RTP's NetSuite software provided such a package.

NetSuite is a suite of software with all the features that you would expect to be available from any large DCS supplier, and includes many functions, such as an alarm management package, that are not found in the basic suite of applications from many DCS suppliers. RTP's software strategy differs from that of the mainstream DCS suppliers because it offers an unlimited license for NetSuite across the enterprise for a flat rate of $6,000. The client only has to purchase one license and they are free to deploy the software throughout the enterprise without worrying about number of seats or number of tags used in an application. This was very important to Wellman.

Clearly, it is not RTP's intention to generate a lot of revenue from its software business, but its expertise in hardware and its low manufacturing costs allow the company to charge less for software and support services than major DCS suppliers.

Current Status and Future Opportunities

Wellman has chosen RTP as their control system partner and the 2300T as their system of choice. They have recently completed the first phase of a DSC legacy system upgrade to RTP and are soon to complete a PLC legacy system upgrade. They are also in the engineering phases of a few more

projects in their 5 year plan of replacement. So far the Wellman team says it is pleased with its choice and looks forward to continued success with RTP Corporation. In addition, any plant upgrades or expansions where outside technology suppliers are involved will be expected to utilize RTP.

Conclusions

- Wellman's control system selection team had a tough job "selling" a small DCS supplier not in the "mainstream" to their management. But, a series of visits to RTP's factory and lab for stringent testing followed by visits to customer reference sites allayed any fears they may have had.

- The Wellman team says it is pleased with its choice and looks forward to continued success with RTP Corporation.

- Wellman's engineers report that the system has been both cost effective and reliable and that RTP's service and support is "just short of excellent".

- In making their selection, Wellman first compiled their needs and then made the technology and supplier selection that best suited their needs. ARC feels this is good advice for all to follow.

This paper was written by ARC Advisory Group on behalf of RTP Corporation. The opinions and observations stated in the paper are ARC's. For further information or to provide feedback on this paper, please contact the author at mwilkins@arcweb.com.