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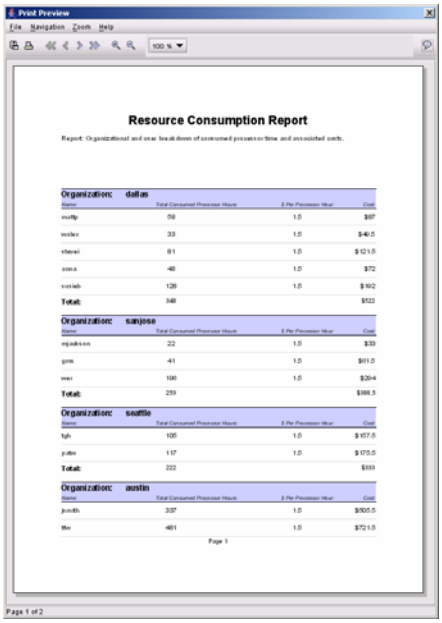
Control Masters Application Case Study

Custom Data Collection



Technologies

Networking
Data Management & Archiving

Services Provided

Microsoft Windows 2000 Networking
Rockwell Plantmetrics Implementation Consulting

Software Utilized

Rockwell Plantmetrics
Rockwell RSSQL
Kepware Enterprise Server
Microsoft Windows 2000 Server
Microsoft SQL Server

Project Description

Rockwell Software's Plantmetrics was implemented at this plant to provide material usage totals for one production area that contains seven lines of equipment.

Prior to the Plantmetrics installation, material usage totals for this production area were collected in the PLC and the report generated through an Interact HMI system. This Interact system was being replaced with another product that did not offer reporting capabilities.

At the time of this implementation, the default Plantmetrics capabilities for production and efficiency reporting were not used. Custom data collection through the integration of RSSQL and Plantmetrics was used to allow miscellaneous data to be collected and stored in the Plantmetrics SQL database. Plantmetrics report objects were customized and configured to report on this data. Future projects will utilize the default Plantmetrics capabilities to track machine production and efficiency on various lines in the plant.

RSSQL was used to collect data from totalizers in the PLC through a Kepware OPC server connected to a TI 505 PLC. This data was collected near the end of a shift and stored in the Plantmetrics SQL database. Three sets of RSSQL triggers, one per shift, were configured to ensure that no collection time was missed. Once data was collected and verified, RSSQL was used to trigger the PLC to clear the totalizers.

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Reporting on this data was performed through the Plantmetrics Production Manager. A report was designed using custom report objects that pulled data from the SQL database. Additional items in the report included company logos and other company information. Since the report itself is written in HTML, Javascript was used to populate fields such as the time and date of the report.

Reports were scheduled through the Production Manager Report Scheduler to be printed at the end of each shift at a printer that was located in the production office. At the same time, a PDF version of the report was generated and stored on the server as a backup.

For this project, Plantmetrics and RSSQL provide an easy, customizable data collection system that generates both printed and archive copies of Production Totals reports. This project also allowed older HMI software to be replaced with up-to-date, supported HMI application software.