Plastics Manufacturer - Scandinavia

Accessing process data for multiple purposes

One of Scandinavia's leading plastics manufacturers has chosen the OPC DataHub from Cogent Real-Time Systems to extract data and interact with their state-of-the-art plastic manufacturing equipment. The firm can now access any desired process data for the purposes of engineering analysis and enterprise-level resource planning. The OPC DataHub was the only additional piece of software required to realize substantial savings of time, materials, and production costs.

"The OPC DataHub is exactly the kind of application we needed," said the project coordinator. "Our system is extensive, and we need to visualize a lot of production parameters. We looked at other solutions but they were too expensive and more complicated."

When the company installed new equipment recently, the necessary system integration grew very complex. Progress was slow. After almost a year they were facing a deadline and had little to show for their time and effort. The goal was to pull together data from 15 machinery units, and feed it in real time into the company's business processing systems. And if possible, to enable plant engineers to view and work with the live data as well. When they found the OPC DataHub they were pleased to learn that most of the work had already been done.

The first test was to connect the OPC DataHub to an OPC server and put live data into ODBC databases, Excel spreadsheets, and web browsers, as well as to aggregate OPC servers and tunnel data across a network. The OPC DataHub proved to be easy to use and reliable, and it performed remarkably well. The next step was to set up a test system.

The test system connected all of the machines' OPC servers to a central OPC DataHub. Another OPC DataHub at a network node in the engineering department is connected to the central OPC DataHub by a mirroring connection, for tunnelling data across the network. This second DataHub is then connected to an Excel spreadsheet to give a live display of the data in real time. When a piece of equipment machine starts up on the production line, the chart comes to life—cells spontaneously update values and bar charts spring into existence.
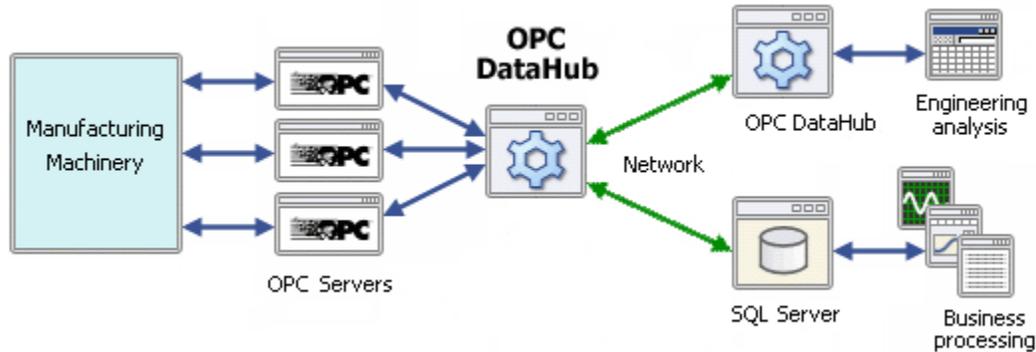
The engineering department was able to develop a custom TCP application that uses the DataHub C++ API to make a direct connection from the OPC DataHub to their SQL Server database. Once connected that database gets updated in milliseconds with any change in the plastic-manufacturing machinery. From the SQL Server database the data is accessed by the company's ERP and accounting software.

Using the OPC DataHub in these ways allows the company to:

- Aggregate the data from all machinery into one central location.
- Distribute the data across the network to various users.
- Do decimal conversions of the data as it passes through the DataHub.
- Put selected subsets of data into Excel for engineers to view and run calculations on.
- Feed values into a SQL Server database in the company's IT and business processing system. The OPC points are read-only to ensure a clean separation between the management and production areas.

"This system pays for itself," said a company spokesman, "and we save money in many ways. We have seen substantial gains in productivity and performance because we can monitor our processes far more effectively. Our accounting and planning departments have, for the first time ever, an up-to-the-second record of actual production variables and statistics. At the same time, our engineering staff can use real-time data in their calculations, and feed the results directly back into the process."

The OPC DataHub also saved substantial programming costs. The time alone saved on development work has paid for the system many times over. With a single tool the project coordinator has met the various needs of both the engineers and company managers. "The software is easy to install and it works well," he said. "It's at the correct level for our needs."

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The OPC DataHub is a highly optimized integration tool for real-time data. It provides quick, reliable and secure access to valuable process and production data and makes it available to management systems, database archives, and remote clients. Combining a number of innovative technologies, the OPC DataHub makes it easy for you to access the

real-time data you need to make informed and timely decisions that save time, reduce waste, and increase profitability.

Founded in 1995, Cogent Real-Time Systems is the leader in real-time data integration between Windows, Linux and QNX systems. Customers include the Bank of Canada, Cadbury Chocolate and the European Space Agency. Cogent leverages its experience in real-time data communications to provide the next generation of OPC products. For more information, please contact Cogent at info@cogent.ca or visit our web site at www.opcdatahub.com. You can also call us at +1 (905) 702 7851.