

Ecole des Mines d'Albi-Carmaux - France

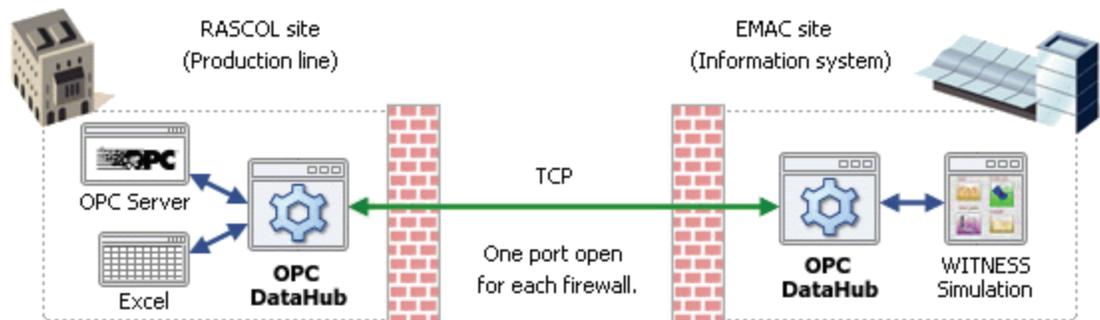
OPC DataHub links live data between separate locations

The Ecole des Mines d'Albi-Carmaux (EMAC) is an engineering school operating since 1992 under the supervision of the French Ministry of Industry. The school is a center of research, and has forged close links with industry and other institutions to gain support for innovation and an infusion of technology. One of these partners, the Lycée RASCOL, has been working with EMAC on a joint project to monitor a production line running 6 PLCs connected to various devices. These PLCs are then linked to an OPC server. In a recent enhancement of the project, EMAC staff decided it would be useful to gather data from the system at the RASCOL facility and feed it to an analytical tool, Witness Simulation, running at the EMAC location.



The EMAC and RASCOL systems are both connected to the Internet, and of course, securely protected by firewalls. Any data connection between them, in addition to being fast, should be reliable and secure. The leaders of the project on the EMAC side, Mr. Franck Fontanili and Mr. Thomas van Oudenhove, found the OPC DataHub to be the ideal tool to help make the connection.

"A simulation tool like Witness is generally hosted on another computer," said Mr. van Oudenhove, "and needs to access to Microsoft DCOM variables through different kinds of clients. But DCOM and its required settings are quite complex and not really fault-tolerant. For example, some Windows updates may be the cause of a weird dysfunction. To get things working, we used the OPC DataHub to avoid DCOM setting problems. The OPC DataHub establishes a tunnel between the OPC client and the server, allowing OPC data to pass through without any specific DCOM settings."



Mr. van Oudenhove and Mr. Fontanili connected one OPC DataHub to the OPC server running on the RASCOL site, which is connected to the production line PLCs. Then they tunnelled the data from that DataHub to a second OPC DataHub running at the EMAC

location, and connected it to the Witness Simulation Suite. As a result, they can now monitor the data coming from production line PLCs from their offices at EMAC.

With that working, they decided to take advantage of the OPC DataHub's ability to link to Excel in real time. They created macros in Excel that receive data change information from the PLC, and respond accordingly. This valuable enhancement to the project was added at no extra cost.

The OPC tunnelling is so quick and reliable that the project leaders have been able to demonstrate their Witness application connecting across a continent. "At the beginning of June I was in Czech Republic where I presented our online simulation application to the Czech and Slovak users of Witness," said Mr. Fontanili. "Thanks to the OPC DataHub, I was able to demonstrate the online simulation from Prague linked to the platform at Albi, in France, and it worked without any problem."

Mr. Fontanili has recently returned from attending the 17th IFAC World Congress in Seoul, South Korea. His presentation of this experimental platform in a session concerning Remote Laboratories received an enthusiastic response. "We are very pleased with the system performance," he said. "For our remote access to work, we needed a secure and reliable connection across the network to our OPC server. The OPC DataHub was exactly the right tool for the job."

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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.