

DANIEL**Daniel Measurement and Control Inc.**

Contact person: Lawson Ramsay
 Industrial sector: Process technology
 Address: Logie Court
 Stirling University Innovation Park
 Stirling, Scotland, FK9 4NF, UK

Contact data: Phone: +44 (0)1786 / 43 34 00
 eMail: info@daniel.com
 Internet: www.daniel.com

BENCHMARK REPORT



Process Automation

The M&M-Business segment for PC-/Pocket PC and web-assisted Field device management – from the local user application on FDT-basis to the Enterprise-Application with globally networked sensors and actuators. Experiences from numerous projects, know-how of modern Software technology and knowledge of the industrial sector create a distinct competitive advantage. M&M offers consultation, development support and project management, as well as the handling of complete projects.

M&M Software GmbH

Industriestrasse 5
 78112 St.Georgen

Phone: +49 (0)7724 / 94 15-0

Telefax: +49 (0)7724 / 94 15-23

eMail: info@mm-software.com

Internet: www.mm-software.com

M&M Software develops Web Front-End for Control center system on Oil rig



User

The Daniel Measurement and Control Inc., taken over by the Emerson Process Management Inc. in Austin/Texas in 1999, is one of the leading manufacturers of measuring instruments and control center systems for all segments of the Plant Engineering- and Process automation – the focus of operations is the extraction and processing of gas and oil.

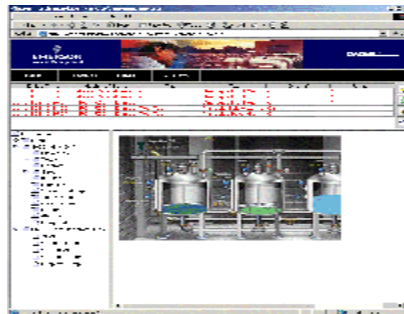
The situation

With DMS+ (Daniel Metering Studio+), the Daniel Measurement and Control Inc. offer their customers a Suite of Software-Modules and products, which are specially designed for the precision measurement of process values in the oil- and gas extraction. The customers requested from Daniel a precise, graphically meaningful representation of the operation of all their devices and also of the entire system.

Solution

The Daniel-Control center system DMS+ needed a browser-capable Web Front-End, which extends the application range of the plant operation and –monitoring beyond the boundaries of a local Intranet. The solution was implemented as an internet-capable Client-Server solution. The system uses existing configuration data and implements

these on a web-based Front-End. The Look-and-feel of the existing Windows-solution is at the same time automatically converted into a browser-oriented equivalent. The system is connected to the process with OPC Data Access 2.0. The communication between Java Client and NT Server is based on SOAP 1.1 (Simple Object Access Protocol).



Screen mask: Daniel-Control center

The security had to be tightened with the opening of the DMS+ towards the outside. Certain functions, like the change of System values, require a controlled access into the System. Each user in a system has a defined security level. In order to gain access to a sensitive function, the user must have at least the same or a higher security level than that for the function in question. All account confirmations will, of course, be executed through a secure connection to the Web-server with SSL.

Another important aspect was the execution speed of the Software solution. Many rigs have no DSL-connection and are limited by slow Modem speeds.

The combination of DHTML and VML on the Client side ensures that the user interface of the Internet Explorer

visually displays each plant topology („View“) without requiring additional bandwidth for the consuming downloading of Browser-Plugins. On the Server side, robust COM-Components establish the process data connection per OPC-Data access. Inquiries from the Client are grouped in the most economical way and only actually changed values will be returned to the Client.

Conclusion

The M&M-developed Internet interface for the visualization and monitoring of measuring instruments in control center systems on offshore rigs uses the latest technologies, such as XML, SOAP or OPC. The application possibilities reach as far as the internet-controlled visualization of the process flows far away from the rigs. Complex processes are presented to the viewer just as clear and easy to understand as directly on site – moreover, malfunctions and alarms are easily located and can be quickly attended to.

"Clearly defined development processes allowed us to deliver a Software solution to our customers within the demanded time frame and budget."

Lawson Ramsay
 Technical Director
 Daniel Measurement and Control Inc.