

Uniting Old and New

How 4D Ajax Framework v11 is bringing the web into the factory

The Aquila Group, located in Sun Prairie, Wisconsin, has had one mission during its 12 years of business life: To help manufacturing companies do their work better, faster, and more profitably. In a globalized economy where competitors can be located on any continent, raw material price increases, and downward pressure on margins, companies need every edge to stay competitive.

To meet these needs, The Aquila Group has built a series of 4D-based products, the Dynamic Machine Management (DMM) system, to help their customers run their machines and facilities. All of them are based upon the concept of “pull” manufacturing. In essence, a pull system for manufacturing is reactive – companies only produce to meet orders after they are placed. This minimizes inventory and costs, but requires a highly agile organization to turn orders around and deliver quickly.

To date, though, the DMM system has been client-server based. “There is a lot of

data involved in manufacturing, and 4D has done an excellent job of allowing us to create a powerful client interface to manage the flow of data,” explains Stephen Orth, president of The Aquila Group. “Frankly, I have been extremely resistant to the idea of moving to a web platform, because I didn’t see how existing web technology would allow us to provide the same level of timely information to our users.”

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What changed his mind? “I saw 4D Web 2.0 Pack in action at 4D Summit 2007. It became clear to me that, by using Ajax, the technology was at a point where I would not have to sacrifice any functionality in order to create a web-based version of our products.”

This winter, Orth was approached by his biggest client, the Eaton Corporation, about creating a web-based version of their product.

Work Center	Effective	OEE
A) This Week		
FMS1	82.1	81.0%
FMS2	81.4	71.0%
FMS3	103.9	91.0%
B) Last Week		
FMS1	78.2	71.0%
FMS2	51.4	47.0%
FMS3	57.4	52.0%
C) This Month		
FMS1	80.5	72.0%
FMS2	43.6	39.0%
FMS3	78.9	71.0%

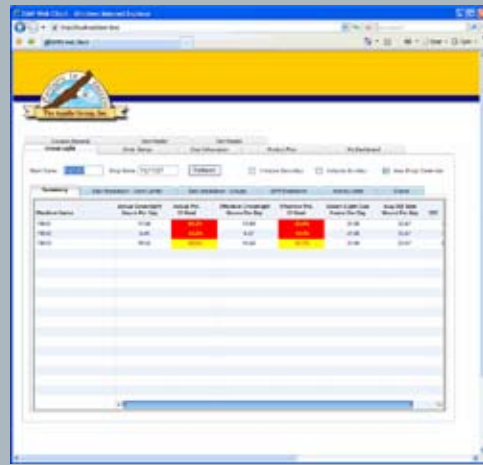
- WHO: The Aquila Group
- WHERE: <http://www.the-aquila-group.com>
- WHAT: Dynamic Machine Management
- HOW: 4D Web 2.0 Pack, 4D Ajax Framework v11

His timeline? Just 4 weeks.

“We had never done any real web development previously,” says Orth. “So the first week was pretty intense, but once we got up to speed everything came together extremely well. Not only were we able to replicate our current UI as a web client, but 4D Ajax Framework v11 also allowed us to create new aggregated reporting tools for use at the company headquarters. That was something we’d had a little trouble doing previously, but not anymore.”

The executives at Eaton were impressed.

“I had an iPod Touch circling around the room as part of the demo, and execs started pulling their own iPhones out of their pockets, connecting to the server, and using it right then and there to view reports. It was a complete success,” concludes Orth. “The project is moving forward and we’re excited to see how far we can take Ajax technology.”



From Web to Dashboard to iPhone...

success story