

Danatec Eliminates Rework with DELMIA PLM Express

Danatec AB has found that being able to operate entirely within the V5 environment has brought many advantages. It is so confident in its engineering solutions that rework has become non-existent.

A Swedish consulting engineering company, Danatec, searched for the most appropriate software solution to meet its needs. It became clear that only DELMIA PLM Express from Dassault Systems allowed it to do everything in a single environment. The solution is especially designed to meet the needs of medium-size and smaller businesses.

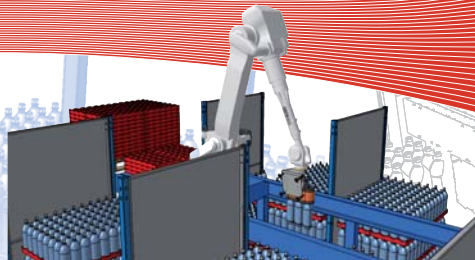
Danatec was already an experienced CATIA and SolidWorks user and knowledge of the shared V5 environment has always been an advantage for the team working with DELMIA PLM Express. Peter Hedlund, project and robotic manager at Danatec, said, "Sometimes a preliminary study can segue into a different kind of project from that originally envisaged so it is very important that all our data be accessible and easily reusable. We recently deployed DELMIA PLM Express on some project analysis for a leading Swedish off-road vehicle company. The customer wanted a new robotics line for its component welding

workshop. As it was a fixed price contract, it was vital we fully understood the customer's questions. Consequently, we were able to build a complete virtual factory, together with equipment and lay out, which allowed us to accurately calculate both timing and costs, all within the single V5 environment."

IT'S NOT ABOUT TIME SAVINGS*

Peter maintains that the advantages DELMIA has already brought his company are not linked to time savings. He points out that Danatec's customers are much more concerned with having a workable solution. It may be that adopting DELMIA technology has not resulted in less work for Peter and his team, but their customers' experience is somewhat different. Since Danatec began working with the DELMIA V5 environment, it has been able to deliver solutions that work without a hitch right from the beginning.

Peter concedes that typically, such is the engineering expertise of Danatec. He and his colleagues have been able to design 90% of a commission error-free from the beginning. "Thanks to DELMIA simulation, the elusive 10% of the job is now delivered right the first time. This is because DELMIA allows us to show the customer the individual welds that either require re-engineering or simply must be welded manually. In a recent project for BAE SYSTEMS, it quickly became apparent that the gantry would have crashed into the fixture had we gone with our first solution. We were genuinely surprised by this result since we hadn't foreseen any problems with the robot's reach; We were hence able to redesign virtually in DELMIA and the new set up worked perfectly for the customer."



IT'S NOT JUST WELDING*

Although 80% of the projects Peter and his team work on involve some form of robotic welding, he tested DELMIA PLM Express' capabilities in other manufacturing disciplines. Recently a brewery approached Danatec for help with automating the picking process for soft drink bottles for retailers' individual orders. Using a Motorman UP50 robot and working closely with the software developer, Danatec was able to simulate and then produce customized picking tools.

"Initially, we had this robot mounted on the roof trusses", explains Peter. "However, our DELMIA simulation soon highlighted two separate problems, first with the robot's inability to reach all the bottles and second with difficulties moving the carriers from that location. Now, the robot travels between the containers and is able to both carry them and reach all the bottles. Without DELMIA PLM Express, we might have potentially wasted time by actually mocking up the roof-mounted version." Another intriguing challenge for Danatec was the development of a specialized wood veneer

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floor manufacturing machine. The customer was a floor manufacturer supplying IKEA and the specification given was that the machine had to be capable of producing 500,000 meters of finished flooring per year. Peter comments, "The most difficult part was finding a way to orient the three layers of paper, wood composite and wood veneer. Once this was accomplished, the three other functions of gluing, pressing and trimming still needed to be addressed." Thanks to DELMIA's integrated environment, Peter's team managed to successfully complete this task in five months and the machine is now up and running. It's been a busy six months at Danatec, but Peter and his team are looking forward to exploiting the capabilities of DELMIA PLM

Express even further. "I am excited about the possibilities linked to the simulation of electronic equipment," Peter adds. "As a mechanical engineer, it is a great opportunity for us to be able to simulate all the electrical elements of a machine. If it doesn't work, we can go back and change the simulation till we get it right. This kind of capability can only help our reputation grow and win us new business."

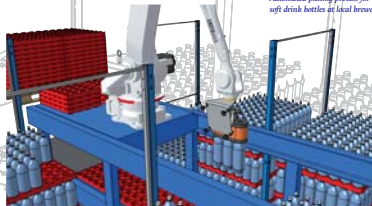
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About DELFOI

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Automated picking process for soft drink bottles at retail brewery.



Automated welding line at components manufacturer.

