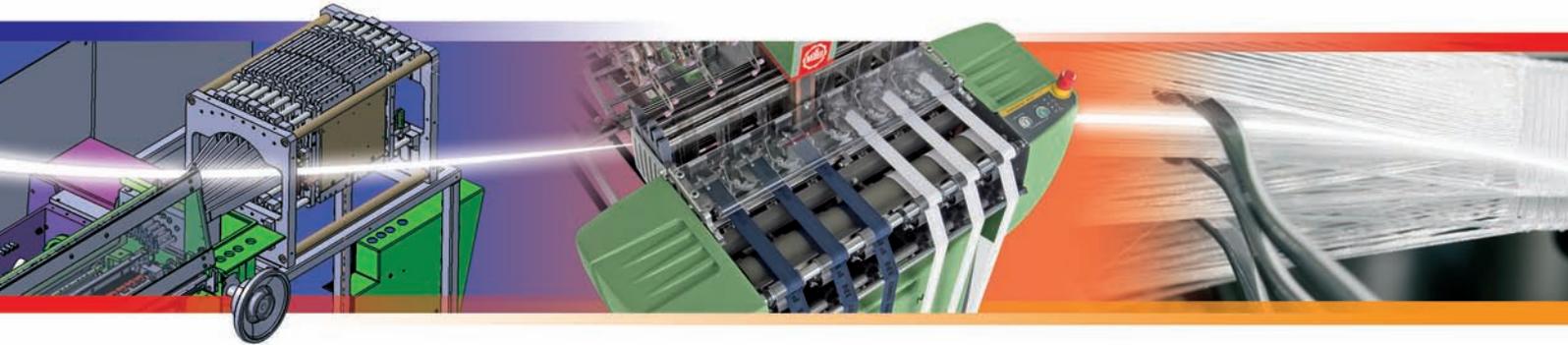


# Jakob Müller

Optimizes product development processes worldwide with CATIA and ENOVIA



## Overview

### ■ Challenge

*Jakob Müller needed to optimize its development and production processes by streamlining NC programming, improving workflow, and securing product data access at its global sites.*

### ■ Solution

*Jakob Müller combines CATIA for product design and NC programming with ENOVIA for management of development processes and data protection.*

### ■ Benefits

*The company has increased transparency, continuity and security in its development and production processes; shortened engineering change order times; and improved control over access to product data.*



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Massimo Ratti  
CAX/PDM Applications Manager  
Jakob Müller



### Global market leader for label production

Whether labels, zippers, belts or crocheted lace, almost everyone owns some form of clothing created with a Jakob Müller machine. The Swiss textile machinist supplies high performance solutions for producing narrow fabrics and ribbons with astounding speed and meticulous detail. With 120 years of experience and at least 50% of market share, Jakob Müller AG is the global leader in the label equipment market.

The company has over 1,200 employees at six manufacturing locations in Switzerland, Germany, Italy, India, China and the Czech Republic, as well as five additional sales branches. More than half of the company's employees develop, design and build machines and systems at the Frick, Switzerland facility.

### CATIA for design and NC programming

Jakob Müller has been using CAD technology since the mid 1980s. CATIA and ENOVIA were introduced in January 2005. Jakob Müller implemented an NC solution based on

CATIA-CAM modules connected with a tool-management system and a direct numerical control solution in 2006.

Engineers use CATIA for designing and testing the intricate parts of Jakob Müller's textile machines, including kinematic simulation and strength and dynamic analysis. The company uses NC machines to manufacture components. CATIA's integrated machining solution enables Jakob Müller to optimize NC programming which reduces downtime among the company's increasingly sophisticated milling centers.

"We have fewer and fewer machining centers, but the ones we do have are becoming larger and more complex," said Adrian Brogle, head of Computer Science at Jakob Müller. "We can't afford downtime. Machines simply have to work. Before, programs could be changed much more quickly by making adjustments to the machine, but today, two hours of NC programming is more cost-effective than fifteen minutes of downtime. The new NC solution quickly paid for itself."



## ENOVIA for more transparent Engineering Change Order management

Jakob Müller's choice of ENOVIA, including Engineering Central and Program Central, was based on the solution's ability to support flexible workflows and multi-site installations, as well as its integrated web technology. If you were to ask a Jakob Müller employee which ENOVIA workflow is the most important today, the most common response would probably be the Engineering Change Order (ECO) process, which introduces changes into a running series by controlling checkouts, reengineering and reapproval for the modified component.

"We always know exactly which products and standard parts are being used where," says said Massimo Ratti, CAX/PDM Applications manager, Jakob Müller. "And we know which changes were made, and so on. We can also analyze the ECO workflow so that we know how long it takes to make a change to the series, enabling us to see where process bottlenecks occur. I can also accurately monitor and schedule ECO processes in order to reduce processing times. For department managers, this is an important tool for optimizing and managing processes. Buyers can see when a component is sent to an update cycle so that they don't order too many outdated parts."

ENOVIA is equipped with an ERP system interface and is currently the leading system for part lists and master data. When being transferred to the ERP system, development data is saved in a specific ENOVIA workspace. This means users benefit from ENOVIA's rights management functions even though complete master data for each

component does not yet exist. For each component, design engineers decide whether to make it visible and to whom. When they finalize development and complete the prototype, they initiate an ECO and transfer master data first to the PLM system and then to the ERP system.

### ENOVIA secures data access

Each Jakob Müller location is like an individual client when it comes to rights management. Site users only have initial access to local 3D data. However, design engineers can approve their own models for use at other locations. "This lets us determine exactly what data is seen at which sites, like in China for instance," said Brogle. "Our colleagues in India, for example, are in control of specific workflow changes they make when adapting parts to the semi-finished products available there."

With production increasing at its global sites, maintaining this control is critical. Massimo Ratti explains, "We couldn't have done it without ENOVIA. It's difficult enough to try and locate a design at one location. If designs are distributed between two or more sites and we didn't have the PLM system, the error rate would simply be too high."

For Ratti, it is also important to use the same tools at all sites and to adhere to set methods. This means that it is now impossible to save copies of designs locally at the Frick site, ensuring that no one can work on or go into production with outdated design versions.

To protect data and ensure that the most current information is available at all times, design engineers use ENOVIA to check their input data every morning and their output data every evening. This guarantees that interfaces

with neighboring parts in the machine are as current as possible for every engineer, simplifying parallel designing.

### The right decision

"The real potential of our development environment is unfolding over time," said Brogle. "One benefit is better synergy since, for example, our new measuring machine can process CATIA data. This simplifies target-actual comparative measurements. Thank goodness we made the move to CATIA or we'd be experiencing many more problems today. Back when we introduced the software, our subsidiaries in India and China were less significant, but today we can't go without secure, controlled communication with them. In addition, distribution of rights is controlled in Europe, allowing us to keep expertise within the country."

Looking back, Ratti reflects on the implementation of the Dassault Systèmes solutions: "We did the right thing at the right time."



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Adrian Brogle  
Computer Science head  
Jakob Müller



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