

Get Full Control Over Your Product Data and Approval Processes

PRO.FILE keeps processes flowing at automotive supplier Muhr & Bender

- An accurate picture of the product with PDM
- PRO.FILE integrates CAD and SAP
- High level of part reuse through classification
- PROOM brings together internal and external developers

Product lifecycle management means keeping all of your development data, from the first design draft to the manufacturing documents and the descriptions of the supplied products, current and valid at all times – while taking into account all change cycles and adhering to strict change order processes when it comes to series production.

For automotive manufacturers and suppliers, this is the norm. This is also true for Muhr & Bender, a company specializing in heavy duty spring components and lightweight automotive construction. Muhr & Bender uses PRO.FILE to control and document these complex processes across its worldwide locations. >>



Documented development

Two CAD systems, CATIA V5 and Solid Edge, for 100 engineers in the fields of manufacturing technologies, engine components, and suspension are integrated with the PLM solution. Item master data and bills of materials are automatically transferred from PRO.FILE to the company's SAP ERP system. In addition to the engineers, about 400 other employees working in development, production planning, manufacturing, purchasing, sales, and quality assurance are also using PRO.FILE.

The engine components business unit develops products to be produced in series. In order to meet the stringent quality requirements of Mubea and its customers, all development documents are subject to a rigorous review and approval process. The following is a simplified overview of the steps involved: "design phase", "review phase", "drawing reviewed", "initial sample inspection", "initial sample approval", "approval for series production", "final approval for production".

The final approval is given by the quality assurance department. All of the other review and approval procedures are carried out by a

number of different teams that have to provide the next team in line with the necessary data and documents when transitioning from one status to another. Moving from one approval procedure to the next can be rather time-consuming. The purchasing department, for instance, has to ensure the delivery of purchased parts before going into series production, while others have to develop and manufacture the tools needed for the production process.

PRO.FILE delivers workflow controls that ensure that the individual activities are carried out in accordance with the company's specifications. On top of that, PRO.FILE is also used to document the entire process. The PRO.FILE change journals allow Mubea to keep track of who changed the status of a document and when.

PRO.FILE also stores and archives the documents that are created during the development and review processes. One important interface is the communication between the design department, the purchasing team, and the production planning team. After a drawing has been approved for the first time, the part master data of the assemblies is automatically forwarded to the SAP system.



Collaboration around the globe

Most of Mubea's engine components are manufactured in the Czech Republic, Mexico and China. Their development is distributed across three additional locations. It used to be that photocopies of the production drawings were sent by express mail. Today, this process is incomparably faster. A drawing is converted to TIFF as soon as it is approved.

From this moment on, the employees at remote locations can access these documents. In addition to providing fast access this also ensures that the documents are always available in their most current version.

Thanks to the PRO.FILE ETOR replication solution, all external locations can continue to work autonomously even if they lose their data connection to headquarters.



Double arm tensioner (DAT)



This form of collaboration also requires that part names be consistently named in multiple languages. In its engine components unit, Mubea uses PRO.FILE in both English and German. All parts names are available in both languages.

An accurate picture of the product

Marc Gajewski, head of product and master data management at Mubea, refers to all of this as an 'accurate picture of the product'. This has a positive impact on all areas of the company's operations. "It used to be that we sometimes had multiple drawings in our different departments or at our different locations and no one knew which one was up to date. Now, we don't have to worry about that anymore. PRO.FILE makes sure that the data we work with is always valid. No more guessing which document is the most current. This makes life easier for all of us."

A systematic approach to product classification with eCl@ss

Marc Gajewski is in charge of master data management at Mubea and knows that having a high level of data quality makes it easy to find the items you are looking for, while motivating engineers to reuse existing parts rather than reinvent the wheel over and over again. And the key to clean master data is accurate classification as it helps significantly reduce the number of duplicates – both for purchased parts and for parts that are developed in-house. The eCl@ss product classification and description standard is a proven and effective tool to that end. PROCAD was the first PLM provider to incorporate the eCl@ss characteristics, which added multi-level class lists of characteristics to its existing classification system.

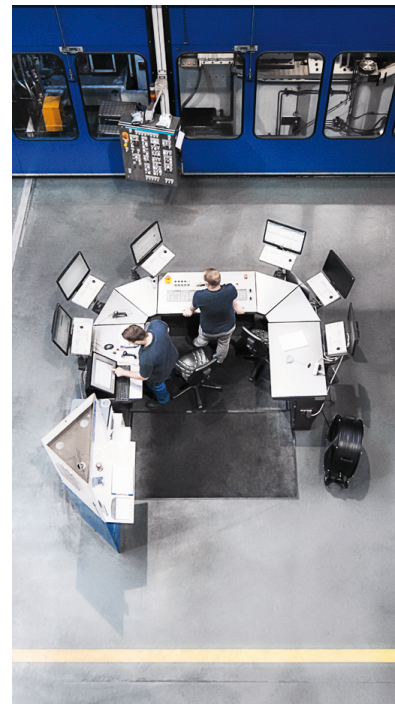
Customizable and flexible

The key to achieving optimum results with PLM is the ease with which PRO.FILE can be customized to meet the requirements of Mubea. Marc Gajewski, who masterminded the project, put it this way: "We want to adapt the system to our processes and we want to be able to do so ourselves – allowing us to respond to changes quickly and without having to rely on the PLM vendor. That is why we asked three of our employees to complete PROCAD's administrator training course at the company's headquarters. Immediately after their return, they began to incorporate our processes and user interfaces in PRO.FILE. This was very straightforward. With PRO.FILE, we were able to rely on our in-house expertise (rather than outside help) to quickly achieve the results that we thought impossible with our previous solution, even though we had been using it for a much longer period of time."

"We want to adapt the system to our processes and we want to be able to do so ourselves – allowing us to respond to changes quickly and without having to rely on the PLM vendor ..."

Marc Gajewski, Master Data Management

After a successful start, the project is about to enter its next phase that will focus mainly on the company's document management. One of the objectives is to incorporate the data and documents that are received via email. Emails are business documents and must therefore be integrated with the business processes.



Production control center for the cold-rolling mill

PROOM as the document exchange hub

Mubea has already overcome another major challenge of PLM: exchanging technical documents with external partners. This is now done with PROCAD's PROOM platform. "It all started when our designers and developers wanted to be able to exchange assemblies with their development partners," explains Marc Gajewski. So it wasn't the IT organization but rather the business unit itself that inspired this. Previously, email and FTP had been the most common methods of transfer for



Assembly line for tailor rolled products

"We got our start with PROOM when our designers and developers wanted to be able to exchange assemblies with their development partners – and to do so securely and transparently!"

Marc Gajewski, Master Data Management

technical CAD and design documents. In some cases, the company had also relied on freeware solutions. Either approach, however, came with a number of apparent disadvantages: Email is not secure and poorly suited for large files. With FTP transfer, you lose control over your file versions, have insufficient activity logging of the exchange process, and are limited to uploads and downloads.

Mubea chose PROOM because it is directly integrated with PRO.FILE and because there is no other solution that better serves the needs of the mechanical and plant engineering industry. The system was implemented on-premise on Mubea's own servers because the company wanted to be able to control its data at all times. The design and development department was the first to start using the solution productively. Today, it relies on PROOM to exchange large CAD files with external design offices. One particular advantage of PROOM is that it gives users the ability to create what is called a virtual project room that allows them to systematically exchange data and documents with different partners and user groups. The company's marketing division also uses PROOM to exchange company presentations and promotional films with external graphics partners. Close to 300 internal and external users collaborate through this platform. Marc Gajewski feels that the introduc-

tion of PROOM has benefited the company in many ways. Projects are now delivered much more quickly and transparently.

About Muhr & Bender

The story of Muhr & Bender begins in 1916 – with a spring. Today, the company is a global partner for the automotive industry and an innovative lightweight construction specialist providing heavy duty spring components and related products. Mubea supplies all automobile manufacturers worldwide as well as leading tier 1 system suppliers. Working closely with its customers and scientific institutions, Mubea continues to pioneer innovations. Many of its inventions have long become international standards.

PRO.FILE, PRO.CEED and PROOM are products of PROCAD GmbH & Co. KG.

All product names or brands mentioned in this document are registered by their respective owners.

PRO.FILE

Headquarters: PROCAD GmbH & Co. KG · Vincenz-Prießnitz-Straße 3 · 76131 Karlsruhe · Germany · Phone: +49 (0) 721 96 56 5 · info@procad.de · www.procad.de/en

Switzerland: PROCAD (Schweiz) AG · Altgraben 23 · 4624 Harkingen · Schweiz · Phone: +41 (0) 62 389 00 50 · info@procad.ch

USA: PROCAD USA Inc. · 1001 South Water Street F · Burnet Texas, 78611 · USA · Phone: +1 (512) 276 5176 · Support: +1 (512) 276 5186 · info@mail.procadusa.com

Competence Center Italy: FINCAM · Corso Vinzaglio 12 bis 10121 Turin · Italy · Phone: +39 (11) 562 85 70 · info@profile-plm.it · http://www.profile-plm.it

Competence Center Benelux: PLM XpertCenter BV · Tussenlanen 11 · 2861 CB Bergambacht · The Netherlands · Phone: +31 (182) 35 04 41 · info@plmxpert.nl · www.plmxpert.nl