The Bridge Between CAD Landscape and ERP System

PRO.FILE keeps processes flowing at Maschinenfabrik Herbert Meyer

- Purchasing, production planning, and engineering work hand in hand
- PDM and DMS in a single system
- Full visibility into project and machine structures at all times

Engineering companies want to be flexible and able to quickly respond to their customers' requirements. Companies specializing in build-to-order manufacturing in particular need to have processes in place that allow them to closely coordinate their order management, production planning, design and manufacturing efforts. Germany-based Maschinenfabrik Herbert Meyer GmbH has seamlessly integrated its PDM solution PRO.FILE with its APplus ERP system to achieve just this in an exemplary fashion.

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"With our PDM system, we can go beyond just controlling and documenting our development processes in our mechanical and electrical design as it allows us to manage and archive any business and order-related documents as well."

Michael Kreuzer, Head of IT

The company is a manufacturer of standard and special purpose machinery for the textile and automotive industries. It relies on PRO.FILE to manage and document its development processes in mechanical and electrical design and to manage and archive its business documents. APplus as the ERP solution, SolidWorks for its designers, and PRO.FILE to manage all of its technical and business documents from a single pane of glass – these are the company's three main software systems that it has come to trust and rely on over the years.

CAD-PDM-ERP: tightly integrated

But what really matters to the company is the tight integration of these systems. It needs PRO.FILE to be integrated with APplus just as much as it needs PRO.FILE to be integrated with its CAD system. This is also reflected in the fact that PRO.FILE is marketed as an OEM component of APplus. That is why at Maschinenfabrik Herbert Meyer PRO.FILE is known as APplus PLM.

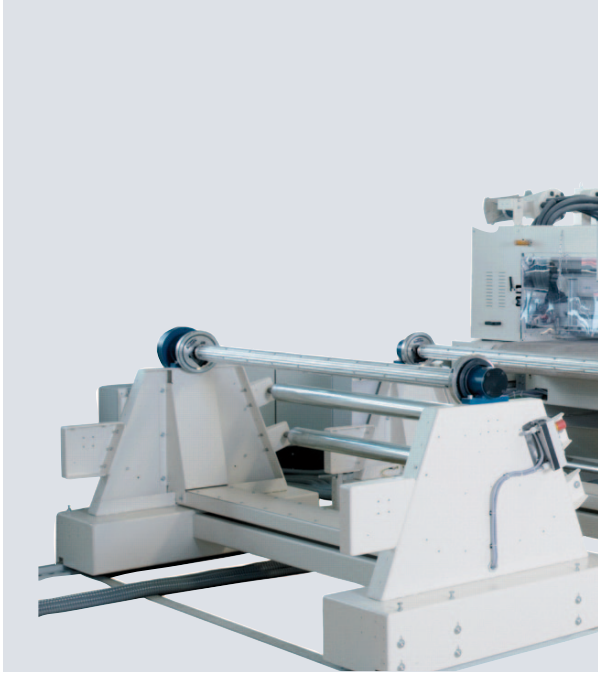
Replacing Excel with networked thinking and collaboration

Before switching to PDM, the company would design parts and assemblies in SolidWorks and assign them separate numbers in the software. The design team would create bills of materials in Excel and a production planning assistant would then manually enter them into the ERP system. Managing CAD data using Excel lists and folder structures, however, is a time and resource intensive process.

"For each new drawing or assembly we had to assign a corresponding name in Excel, find the next available number, create a folder, store the file, and so on. And anytime something was moved around in the Explorer, we had to deal with broken links," says Johann Bierl, Operations Manager at Herbert Meyer. "All of this prevented us from getting our design work done and made it difficult to think in terms of entire assemblies."

Manual entry is long gone

Today, PRO.FILE is the PDM solution of choice to do away with these manual processes. Decision-makers at Herbert Meyer GmbH were also very impressed with PRO.FILE's multi-CAD capabilities. When they first started working with PRO.FILE, the company was still using AutoCAD and had not yet reached a decision as to which CAD systems to use in the future. The main objective was to stay flexible in this regard.
Along with the implementation of PRO.FILE, the company also updated its ERP system to the latest APplus version, which incorporated the latest in web technologies (web services,



XML, SOAP), providing the foundation for the bidirectional integration between the two systems.
"What was really important to us was the existing interface between PRO.FILE and APplus," Michael Kreuzer, Head of IT, points out. After all, the PDM system goes beyond just controlling and documenting develop-

The PDM project at Maschinenbau Herbert Meyer was carried out by Asseco Solutions AG, a PROCAD partner and ERP vendor. Here, PRO.FILE is called APplus PLM.

asseco SOLUTIONS

Maschinenfabrik Herbert Meyer builds highly complex production lines which sometimes require up to 15,000 pages to describe them in detail.

ment processes in the company's mechanical and electrical design to manage and archive any business and order-related documents as well. Its integration with APplus allows users to access CAD documents from their APplus workstations.
Item master data and bills of materials are automatically synchronized with the data and processes in APplus. Sales and purchasing teams as well as designers can create items in the ERP systems and transfer them directly to the PDM system once they are approved. At the same time, design teams can automatically generate BOMs and parts in the PDM system and import them into the ERP system. All CAD data and drawings along with any related PDFs are effectively managed in PRO.FILE.

An end-to-end product data backbone with DMS^{tec}

This gives the company a truly integrated ERP and PDM environment. PRO.FILE added DMS capabilities to APplus in a way that allows Maschinenfabrik Herbert Meyer to manage its business documents without needing a separate document management system. All relevant information is managed in PRO.FILE as the single data backbone. A backbone that connects fourteen PRO.FILE users in mechanical design, three in electrical design, and a total of twenty-five employees working in sales, purchasing, and a number of other departments.

> "We used to create bills of materials in Excel and had a production planning assistant manually enter them into the ERP system. When dealing with machinery with up to 600 assemblies this is an extremely time-consuming and tedious process. Today, it is completely automated."
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> Johann Bierl, Operations Manager, Maschinenbau Herbert Meyer GmbH

Linking parts and documents

The integration between ERP and PDM has allowed the company to establish logical relationships between parts and documents. If, for example, the purchasing department creates a project-related order for a specific assembly, the corresponding project, customer and order numbers are automatically created in the ERP system and synchronized with PRO.FILE.

This in turn allows the designers working on the project to access all data and documents at the click of a button to conveniently view the transaction in question on their screens. If a purchaser checks in a supplier datasheet for a particular item, it is automatically linked to the corresponding part in PRO.FILE, allowing designers to view it from their PRO.FILE workstations. The design department does most of its searches through PRO.FILE, while the purchasing and sales departments use APplus, but the data on their screens stays the same. This is what experts call DMS^{tec}. It describes a document management system tailored to the needs of the project-driven work environments usually found in the technical industries.

Business document management is gaining momentum

In the engineering business, PDM and DMS have long been looked at separately. And so when Maschinenfabrik Herbert Meyer decided to implement a product data management system, it did not automatically mean that it would also manage its business documents with it. In fact, until recently, the company still widely relied on paper or Explorer file structures to archive them. With PRO.FILE in place, however, document management is gaining increasing momentum. There is no need to invest in a separate document management solution, as PROCAD's software already comes fully equipped with all the necessary features – and with an added advantage over conventional DMS systems. PRO.FILE allows companies to structure their business documents much like they would their assemblies on the CAD side. This makes it very easy to create and maintain customer and project files. "Our sales teams use the ERP system to check in their ERP documents, whether it's sales orders and quotations, incoming order confirmations, sales documents or their email correspondence – they store every order-related piece of information in APplus, from where it is then transferred to PRO.FILE," explains Johann Bierl. Today, the company relies on digital document management for all of its business documents and is very satisfied with the results.

With regards to process control, Maschinenfabrik Herbert Meyer is planning to automate its incoming invoice processing. In the future, an invoice will arrive in APplus where it is then compared with the corresponding order or the goods received. When goods are received, a document acknowledging the receipt of the supplier invoice is created in the ERP system, where it is then be processed. The invoice document itself is stored in PRO.FILE.

As a next step, the company aims to further expand its digital document management footprint to cover more technical aspects as well. Michael Kreuzer: "Eventually, we also want to be able to automatically create our technical documentation and spare parts catalog through PRO.FILE. Currently, our production lines and spare parts documentation is done manually. In the future, we want to automatically add any technical datasheets available for a specific item to a separate folder, which is then provided to the customer. This means we won't have to print them ourselves." This is yet another area where the staff at Maschinenfabrik Herbert Meyer is confident that they will be able to count on PROCAD's structured project delivery and excellent support.

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> Johann Bierl, Herbert Meyer GmbH

"The company understands the needs of our industry like no other – we've always felt very well cared for throughout all of these years of our collaboration," both the Head of IT and Technical Director said in almost perfect unison.

About the company:

Herbert Meyer GmbH is a leading manufacturer of bonding and laminating machinery. The company's expertise spans across various industries and applications. Meyer machines are used by apparel and footwear makers, technical textile manufacturers, automotive suppliers, medical manufacturers, leather processors, ski makers and many more.

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PRO.FILE

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