

## Drexler Automotive GmbH: IT at racing level

Successful with Solid Edge, PDM Studio and Ulysses ERP



### Client

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### Products

Solid Edge 3D CAD  
PDM Studio  
Ulysses ERP

Together with its long-time partner, the German system house Solid System Team (SST), the motor racing specialist Drexler Automotive implemented an integrated solution with 3D CAD, PDM and ERP. The development and manufacturing partner of the international automotive industry has been enabled to meet the high demands in terms of flexibility and quality in the racing sector, as well as those of the series business with vehicle refiners and OEMs.

During his career as an internationally successful racing driver, company founder Herbert Drexler developed the first limited slip differentials which enable distribution of the power to the wheels of the racing vehicles much more efficient. With the best possible traction and stabilization of the vehicle at high speeds and extreme driving situations, critical fractions of a second and greater safety can be achieved. After finishing his racing career in 1998, Herbert

Drexler concentrated on developing and producing limited slip differentials completely. The success of his customers in racing and new developments such as racing gears or wheel hub systems quickly led to a growing customer base and to an expansion of the company. This resulted in numerous building extensions on the company premises. Drexler Automotive from Salzweg near Passau delivers gearboxes and limited slip differentials to OEMs in the automotive industry. In 2012 the company was certified according to ISO/TS 16949: 2009. A new production hall was put into operation in 2013 and another new warehouse and production hall in 2017. Today the company employs 120 people.

### Create growth conditions

„It was high time to improve the organization of product development and closely linked manufacturing,“ recalls Daniel Fiebig, Director of IT Management at Drexler Automotive, who was assigned with the task of introducing a PDM system in 2013. Six designers worked with Solid Edge, a 3D CAD system from Siemens Digital Industries Software and stored all the data in a Windows folder structure. „The growing amount of data was no longer manageable. Communication errors during revisions and approvals, duplication of work in the construction and the tedious search for the required models and drawings from Solid Edge had to be stopped urgently,“ reports Daniel Fiebig. He created a catalog of requirements that was answered by various providers.

### Win-Win-collaboration

Solid Edge was implemented by the Siemens partner Solid System Team (SST) back in 2006. At the same time as Drexler's request, SST was developing PDM Studio, a PDM system specially tailored to machine and plant construction that can be seamlessly

integrated into the Solid Edge user interface. This allows users to automatically store data in the correct structures, to adhere to workflows and to carry release levels.

Due to the long-term, excellent business relationship with SST, Drexler chose PDM Studio. „At that time, we could take up the additional requirements of Drexler Automotive and add them into our own development plan,“ Torsten Hartinger, managing director and head of the SAP PLM and ERP division at service provider SST, reports. „We were pursuing a flexible plug-in concept that could resolve the contradiction between standard and customer-specific adaptations.

Only for the data transfer to the enterprise resource planning system used at that time no solution was found, as adjustments could only be made by the sales partners of

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Director IT-Management  
Drexler Automotive GmbH



the existing ERP system. „This would have led to unmanageable follow-up costs for the system, which was not designed to meet the requirements of a traditional manufacturing company,” says Daniel Fiebig who had another project on the agenda. „For us, consistency was a decisive factor in becoming faster, more flexible and at the same time more precise than our business requires.“

### Three pillars of IT

SST also saw integrated and secure processes as a decisive success factor for its customers - and therefore entered into a partnership with



Host Software Entwicklung & Consulting in Kirchdorf an der Krems in 2012, where the ERP system Ulyses is developed especially for small and medium-sized companies in the manufacturing industry. „Our PDM Studio is open for bidirectional data exchange with upstream and downstream systems,” says Torsten Hartinger. „For this reason, we could enable all relevant data such as bill of material information, article master

data and neutral formats to be automatically exchanged with the ERP system with relatively little effort.“ Therefore, the decision to invest in both systems has already been made in 2013. A quality management system was selected as the third pillar of IT, which can also transfer data to the ERP system.

### Professional implementation project

After a test installation of PDM Studio, however, the disillusionment followed: „With the poor quality of our database, the advantages of the new PDM system simply weren't fully apparent,” remembers Daniel Fiebig. „The roughly 10,000 models and drawings were each structured differently, important administrative or component-specific features such as component designation or drawing number were not in the CAD metadata, but as notes in the drawing files.“ It took around two years to evaluate the data and to maintain the most important repetitive and standard parts according to the new requirements.

„With the corresponding functions, PDM Studio saved us a lot of time. We slowed down the speed of the project to bring quality into the new system,” reports Fiebig. „It was particularly important to get the affected employees on board to help shaping the detailed functions and processes.“ For example, a property list with around 70 criteria was defined. The designers fill in tabs depending on the processing level, until the parts master data for the subsequent processes contain all relevant information. „This initially meant

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additional work for the employees - today we enjoy the added value of a large, well-maintained database," says Fiebig. „Among the 22,000 objects that have now been found, you can search for the required components in a very granular manner.“

### **System-supported and configurable workflows**

SST could map additional Drexler requirements in the system for all standard functions such as rights management, creating files or releases. Today, drawings are automatically converted, for example into a PDF. The so-called converter server creates and stores all desired neutral formats of the data. High-resolution preview images can also be generated via the converter server, which can be used in downstream processes throughout the company. A picture is worth a thousand words to purchasing or manufacturing department - even in customer transactions it is used.

„With our plug-in concept, we could implement Drexler's high PDM requirements within the standard and saved the designers a lot of routine work," reports Torsten Hartinger. „The user can configure the converter server himself and use it for many other tasks.“

### **PDM supports two business area**

A lot has improved at Drexler since the Go-Live in 2016. Every designer publishes changes via approval workflows, an ERP clerk then changes the

master record or creates a new one. There are no more outdated drawings in the company, the current status is always produced. The result: The error rate was significantly reduced. This not only has a positive effect in monetary terms, but also in terms of fast order processing. „Targeted access to existing components via the database-supported search prevents double and triple designs," says Daniel Fiebig. „The design engineers are now much faster and the teamwork on our development projects has been significantly improved.“ One of the biggest advantages is that the system supports the collaboration with OEMs for series parts. While projects in motor sports are completed after an (admittedly hot) phase, there are many phases in the series business where information



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Managing Director  
Solid System Team GmbH

and data statuses including document management of all project-relevant data must be precisely logged and documented. „Without PDM Studio, we would not have been able to achieve this structured work for the series business,“ Daniel Fiebig explains. „Our customers expect seamless traceability of the design process and all changes.“

#### **Seamless information exchange between PDM and ERP**

The well-maintained data can now be transferred to the new Ulysses ERP system via a bidirectional interface, where it supplements the data stock from the old system. „The very good cooperation is facilitated by the fact that Ulysses is very flexible and was specifically developed for manufacturing companies,“ says Daniel Fiebig. Again, both business

models must be mapped: „We are 99 percent complete with the implementation for motorsport,“ says the IT manager. „We will also have set up the processes for series production in three months.“

Full consistency of data, whereby the PDM system will be the leading system in the design area, exact pre- and post-calculations, higher adherence to delivery dates and an improvement of warehouse logistics are already emerging as success factors. „We switched to Ulysses ERP on January 1, 2020 so that we could take stock of the exact inventory,“ Daniel Fiebig emphasizes. „With new warehouse logistics, controlled by barcodes, we can now solve many search and material problems that have previously hindered us.“

#### **Efficient time recording for flexible working time models**

Human resources management with time recording from Ulysses ERP is already in use. The services correspond to the requirements of the automotive supplier, from digital personnel files to the definition of around 40 working time models, precise hourly accounts and stamping in

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and out using an RFID chip at terminals. Even the different break regulations for trainees with block or weekly vocational schools are mapped. In the future, around 30 employees will use Ulysses ERP in the commercial area.

### **Best solutions through strong partnerships**

The long-term collaboration between Drexler and SST has paid off for both sides. Based on the implementation of the Solid Edge 3D CAD system, SST was able to sharpen its PDM system "PDM Studio" to meet the tough requirements of the automotive supplier. „SST was a great partner for this. The result is now so good that we are happy to be available for visits as a reference customer,“ emphasizes Daniel Fiebig.

„The project with Drexler was particularly characterized by the open and goal-oriented cooperation. The jointly developed adaptations have led to today's success,“ recalls Torsten Hartinger. „The company had a major influence on the development of an integrated CAD-PDM-ERP solution, provided by SST.“ The partners are already working on new projects, such as PDM integration for Siemens NX.



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