



## Editorial

### Every Good Production Process Starts with a Plan

80% of your production costs go for planning, did you know that? Your Development Area designs the new product, your Marketing Area works out the related sales campaigns, and your Production Area and Mechanical Equipment Area draw up the production plan. Questions have to be answered, like „Can we make the new product ourselves?“ „Can we fill this customer order ourselves?“ „Must we outsource part of it to a ‚helping hand‘, i.e. to an outside company?“ „Where will our tools come from?“ In today's business world and in ERP (Enterprise Resource Planning), it is often self-understood that software has the task of carrying out complete production planning and simulation for new, incoming orders. But such ideal conditions are still far from universal in the area of tool planning and simulation. Nevertheless, all-round production planning makes it necessary to take all required tools into account and make sure they are on hand in plenty of time. That's where TDM software comes in, with its enormous time savings. Your TDM software can schedule tool procurement long beforehand. As a user, you stay right on schedule because you can select your tools accurately during the planning process. You can ascertain their current availability and give your NC programmers the tool data they need to calculate individual work steps and simulations. Everyone in the industry knows that merely selecting a machine to make a new product is of no use if the required tools are not in readiness. Your TDM software remains in action from the very first step in production planning all the way to Job #1. It monitors every phase along the way, and always makes sure the right tool is delivered at the right time. Yes, every good production process starts with a plan, and that plan can be set up and carried out better, faster, and more reliably with TDM.



Very truly yours,  
Jürgen Auer

Dipl.-Ing.  
Jürgen Auer,  
Managing Director  
TDM Systems GmbH

## From Pilot Project to Standard System

### TDM Systems develops new FMM Maintenance and Repair system with ARBURG

*Facility and Maintenance Management (FMM), or „Maintenance and Repair“ for short, has an important role at ARBURG, the specialist for plastic injection machines in Lossburg, Germany. The reason: ARBURG's products are complex, and its high-tech production processes are many-sided. ARBURG's manufacturing penetration of more than 60 per cent places heavy demands on the availability of plant resources. Because the software market currently offers no ideal FMM solution, Tübingen's TDM Systems GmbH developed a new FMM system in a pilot project with ARBURG.*



Injection moulding machines from ARBURG are used worldwide.

ARBURG began systematizing maintenance and repair for its plant equipment about 10 years ago with the aid of a software system. However, this tool had numerous deficiencies: it failed to provide electronic documentation, and information about items like maintenance and repair orders, work already carried out, scheduling of upcoming service checks, and many other functions had to be recorded and communicated on paper. Service technicians were never completely certain whether they had all the information they needed and whether the next service check could be carried out on time. The software was helpless when asked to document repair jobs. Not only that, it lacked the ability to manage spare parts for ARBURG's complex plant equipment. All these factors prompted ARBURG two years ago to look for a new maintenance and repair system.

ARBURG's experts studied all products currently available on the market. As Siegfried Finkbeiner, ARBURG's Production Manager, says, here's how they summed up their findings: „Our current TDM Systems tool management system and our software for tracking gauges and calibration equipment already offer 60% to 70% of the functions we require from a general maintenance and repair system“. The company had been using TDM Systems software for its tool management system ever since the



Production at ARBURG is at the highest level of quality. The company lays top priority on Facility and Maintenance Management (FMM) in order to prevent breakdowns.

year 2001, including not only the basic TDM V4 module but also the MPO Module for Organizing Gauge and Calibration Equipment, the TDM Tool Crib Management as well as an interface to SAP R/3.

„In August of 2003 we detailed our ideas in a set of performance specifications and approached TDM Systems with these specifications in hand“, relates Siegfried Finkbeiner. Although TDM had not offered generalized maintenance and repair software up to that time, the programming department in Tübingen

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## From Pilot Project to Standard System



Siegfried Finkbeiner,  
Production Manager  
at ARBURG:  
„Ease in use was  
our first priority.“

went to work immediately to develop an FMM system with ARBURG standing ready to „baptize“ it as a pilot user. The new software went into productive use in December 2004, and soon proved its value at ARBURG. It has already assumed much of the work load of service checks, maintenance, and repairs. „It was important for our maintenance and repair service activities to get a standard software which was independent from the rest of the industry“, says Siegfried Finkbeiner. „And we were looking from the very beginning for a reliable partner.“



Old garb, new Tool: TDM Systems has made its FMM software just as user-friendly as its Tool Data Management System. The user can define maintenance schedules flexibly.

### Easy and Fast Data Acquisition

ARBURG's top priority was ease of use – „that came first for us“, says the Production Manager. Here are two examples of how TDM Systems met this demand:

1. Since there is no need to leave the beaten track when a good software system is already in use, TDM Systems' new FMM module has been designed to fit right in with the widely-used TDM Software and its existing modules. The benefit is easy to see: from the very start, the user is familiar with software's user environment and its basic functions.
2. Data acquisition for a complete repair and maintenance concept is no small matter. That makes it important to have a clear, self-explanatory

structure in the input screen masks. Finkbeiner: „Up to the present, we have registered about 6,000 of our plant equipment items with this software, or about half. In view of the size of our company, we expect to have all of our equipment systems recorded by the software in one to two years. TDM Systems' ease of use in data acquisition is an enormous help to us.“

Data acquisition is carried out by first incorporating all master data of each equipment system into the software (machine tools, electrical devices, supply systems etc.). In most cases, the user can use information provided by the manufacturer of the equipment requiring maintenance when working out the details of the maintenance schedule. Such maintenance schedules are then incorporated into the FMM module according to their classifications. The equipment itself is usually classified hierarchically, for example according to machine groups, subgroups, and even, if necessary, according to individual parts such as bearings, switches, and gauges or, in the case of buildings, in the form of shop floors, rooms, air conditioning systems, heating systems and the like.

### „FMM manages itself.“

TDM Systems' maintenance and repair software also offers the user different methods for defining maintenance schedules. For example, suggestions made by the software systems itself can be taken over, or individual form sheets can be set up. And



FMM makes it possible to set up completely flexible maintenance schedules for all plant resources.

later expansion of the software is no problem. This is an important factor, since actual service checks and situations experienced during repair and maintenance are constant sources of new insights.

One significant feature of the software is how it deals with older data, should it be present. In the case of ARBURG, such older data was present in an Access format. However, there was no difficulty in taking it over, since the FMM solution worked out by the software experts in Tübingen included the necessary interface.

Even with a centralized data management system, manual data entry and the definition of maintenance schedules can be left to the company's



Production Manager Siegfried Finkbeiner, Production Planner Torsten Schmid and Assembly Group Team Leader Siegfried Esslinger (left to right) at an ARBURG injecting molding machine. FMM software is one reason for ARBURG's high quality.

individual departments, since they best know their own equipment systems. Finkbeiner, ARBURG's Production Manager, sums it up as follows: „Initially, of course, a good deal of work is involved. But once the master data are integrated and the maintenance schedules are worked out, the FMM system is well worth it. It develops a dynamic of its own and grows to meet heavy demands placed on it. It takes care of itself, so to speak.“

### Transparent Costs Due to Integrated Cost Accounting

To date, all of ARBURG's technical equipment for handling materials in the plant, like cranes and handling devices, has now been registered by the software. What is more, much technical equipment in the plant building, such as heating systems, small electrical machines like battery-powered screwdrivers and hand-held drills, have also been recorded, along with the processing centers for key processes.

In addition to ensuring availability, FMM also has a further benefit: the user can access the entire history of actions taken and costs incurred. Thus for example repair costs incurred over the years for a specific system now become transparent. „For the first time, we are now in a position to compare the costs of maintaining our plant resources. The insights gained in this way are important for future investment decisions,“ says Finkbeiner.

We want the road into the future at ARBURG to be as smooth as possible. „We are extremely interested in the online Internet solutions which FMM will offer,“ says Production Planner Torsten Schmid. For example, it will then be possible to set repair jobs in motion from any computer station in the company. Service technicians will be able to link up with the system from the outside via notebook or PDA, for example to look at current jobs or check the spare parts stock. The upshot of this is that Maintenance and Repair is only as good as the speed with which information is communicated.



## Today's Interview

### A Pit Stop at TDM Systems

**More than 900 manufacturers from 21 countries will soon show their products at METAV, and TDM Systems will be there too. We asked Daniela Rudolf, Marketing and PR Manager at TDM Systems, how TDM will put its best foot forward at METAV and what a pit stop has to do with the new Import Assistant from TDM Systems.**

**TDMMessage: Ms. Rudolf, METAV will run from June 20th to 24th in Düsseldorf: are your bags packed?**

**Daniela Rudolf:** They are indeed! We'll be focusing at METAV on two highlights: the TDM Import Assistant, a new part of our Tool Data Management software, and the TDM Data and Graphics Generator, or „TDM 3D“ for short. Many visitors to our stand at METAV are already familiar with this Generator, which creates tool data and models in 2D and 3D graphic form with time savings of up to 90%. All in all TDM 3D contains data and graphics for more than 40,000 tool components from toolmakers like Sandvik Coromant, WALTER, Prototyp and Titex. And now the TDM Import Assistant enters the picture with a turbocharged boost that lets the user pull up information from the Data and Graphic Generator and automatically put it into the database. As always, the user also has TDM's integrated catalogue of manufacturers at his fingertips. No matter how he uses it, the Import Assistant is sure to save him the enormous work of entering data manually. Work that once took up to 2 years can now be finished practically overnight.

**TDMMessage: It sounds as if TDM is really going to step on the gas at METAV.**

**Daniela Rudolf:** You're absolutely right, and companies that implement TDM can also step on the gas from the word „Go“. Filling tool databases is now almost as fast as putting gas into a racecar tank at a speedway pit stop!

The data from our Data and Graphics Generator are top-quality high-octane fuel too. They contain everything needed for digital tool work, along with true-to-scale 2D drawings and 3D drawings for simulations. We want our visitors at METAV to see at a glance that TDM users always start from the pole position, and that's why we took the world of race cars as our theme this year.

**TDMMessage: You mean TDM won't be wearing soccer fan shirts and goalie colors in this year of the Soccer World Championship?**

**Daniela Rudolf:** No, and there's a good reason: soccer was our theme at the last METAV in 2004. And since TDM is always a cut above the rest of the field, it won't hurt to show it by setting ourselves off a bit from the others. Also, visitors to our stand will have a chance to turn the wheel of fortune and answer questions put by our „TDM Racing Queen“ (we'll naturally help our candidates along a little with some helpful hints). The winners get to take a „hot tire“ back home with them. And after the Trade Show we will also send everyone who asks a little memento of his or her stop at TDM Systems in the form of a Pit Stop package,



Finding the right float for the TDM Racing Queen.

including a free gift certificate for the 2007 TDM Body Calendar. Each free gift certificate has its own code, ensuring that the person who receives it will get his own personal copy of the calendar. Anyone who got this calendar in 2006 will never forget it. The calendar appeared in 2006 in a limited edition of 1,000, and they were all snapped up in a short time.

**TDMMessage:**

**Ms. Rudolf, many thanks for talking to us.**

**VISIT TDM Systems  
at the following stands :**

**Hall 9 · Stand B 11  
WALTER AG**

**Hall 10 · Stand B 53  
Sandvik Coromant**



The TDM Racing Queen and Daniela Rudolf, responsible for Marketing & PR at TDM Systems are checking the results of the shooting.



## TDM Product News

### New and Improved: The new release TDM V4.2

*Version 4.2 of TDM was released on May 1, 2006. This major update follows Version 4.1 of the TDM software and contains numerous modifications, with expanded features to make work with TDM even simpler and more efficient than before.*

*Here are some of the improvements in TDM V4.2:*

#### 1. Blend-out screen tabs

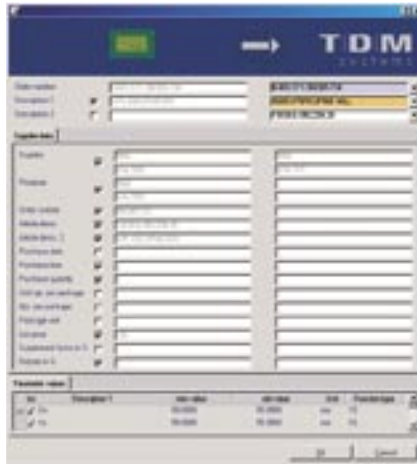
The tabs in the master data screen display of TDM can now be configured individually so that those which are important for each user always remain in the foreground. The others can be blended out, making TDM V4 easier to use and more clearly organized than ever before.



Flexible blending-out tabs in TDM V4.2.

#### 2. Catalogue data enhances tool master data

Tool data already stored in TDM V4.2 can now be enhanced with the manufacturer's own tool making catalogue data. Existing data is retained. This is especially useful for TDM customers who have already transferred data from an old system into TDM. This data often contains only a fraction of the contents of electronic catalogues, with their better quality. Now this data can be fully updated with the full range of available information.



Example of the enhancement of existing tool data by using WALTER's tool catalog.

#### 3. Standardized CAM interface

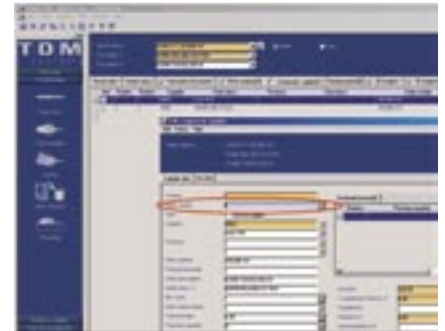
Every user of TDM V4 now has a standardized CAM interface at his disposal and can copy tool data records via an NC-file to nearly any NC program. Using the up-to-date tool data which this feature makes possible, the user can create efficient NC programs.



Universal access to tool data from your NC program directly to the TDM data base.

#### 4. Data on preferred suppliers

Supplier data in TDM can now be structured to show preferred suppliers and to arrange suppliers in the order of preference. When the crib module is used for accounting entries, costs are automatically calculated with reference to the supplier with highest priority.



Definition of a preferred supplier in TDM enables an efficient ordering of tools.

#### 5. Current data on hand in TDM 3D

The TDM Data and Graphics Generator is constantly being developed further, so that new tool data information is constantly being processed, including 2D and 3D graphics. Currently, the Data and Graphics Generator contains data for the following tools:

Sandvik Coromant: standard tools for turning, milling, drilling, including inserts and standing and rotary holders.

WALTER: standard tools for turning, milling, drilling, including inserts and standing and rotary holders.

Prototyp: tap drill program.

Titex: XD-technology and the complete ALPHA program.



Now also available: tool data and graphics of the manufacturer Prototypy and Titex.

The 5 points above describe only a few of the many improvements in TDM V4.2. For further information, please contact your TDM sales representative or the TDM sales hotline: +49.7071.9492-760



## TDM Team

### Kerstin Gehrig is „exotic“ ...



Kerstin Gehrig  
enjoys her role as the sole woman software developer  
at TDM Systems.

... in the digital information world. Not because, at the age of 28, she specializes in an exotic field of work but rather as a woman in a previously male domain. Even during her training as a digital information specialist and software developer at the Training Center for Economics and Data Processing in Würzburg, Germany, Kerstin Gehrig and one other student were the only female software developers in a class of 30 men. And she has been unique in the TDM Systems software development area ever since joining it in August of 2002.

It helps that Kerstin Gehrig is working at her dream job. Her initial training as an office worker gave her the right basic tools. She had always known that she wanted to work in the field of digital information. Today, she stands for „Software Development & Co.“ at TDM Systems, where programming, testing, ongoing development, and customer support are her daily fare. One example of a current software and customer support project is TDM's „Facility & Maintenance Management“ (FMM) software, where Kerstin Gehrig is

guiding the development of a new software module for actual working conditions in factories. In this, she has already collaborated with her counterparts at ARBURG company to create a logically organized, practically oriented maintenance and service software. Currently she is honing this software and adapting it for „FMOnline“, an online-based menu which will enable every user of plant resources to report problems online to the proper company area over the company's Intranet and get help immediately.

Kerstin Gehrig's work also includes MPO, the TDM module for the organization and management of measuring and inspection equipment. Preparations are already underway for the next phase of development.

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## TDM Team

### Uwe Sauer Brings TDM Know-How to Customer Projects

Uwe Sauer moved up from the position of TDM Sales Director to become head of the TDM Systems Project and Engineering Department on January 1, 2006. He leads a team of project managers with a broad range of background experience in planning and implementing software projects. Together, they provide customer support ranging from the initial analysis to the moment the software goes online.

TDM's Project & Engineering Department is taking on more importance all the time, as the work load of Uwe Sauer and his team shows. „Nowadays, customers expect more from us than the mere installation of standard software. They want their processes and information flows to be a smooth-running whole that guarantees maximum work efficiency," says Uwe Sauer. Even more demanding is the fact that tooling processes have grown ever more complex. Today's CAD/CAM systems, for example, are filled with tool data and 3D graphics, while tool preparation and the processing machines themselves require tool data in ever greater detail.

Uwe Sauer and his team take the user by the hand, as it were, and stay at his side during the entire course of the project's development and initial implementation.

Uwe Sauer, who has been with TDM Systems GmbH since 1991, combines technical competence with sales experience. As sales manager, he was constantly in contact with customers for many years. He has a thorough knowledge of the demands and processes of the company. Now 44 years old, he has acquired a wealth of experience concerning every aspect of TDM and has also had a hand in the development of several TDM software modules.



Uwe Sauer,  
Project & Engineering Manager,  
heads up a team that synergizes man and software.

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## TDM Systems Spreads Through South America

### Adept Systems is the new TDM Sales and Support Partner in Brazil

TDM Systems' new partner in Brazil is Adept Systems, an established software seller. Adept Systems seized the chance to provide sales and service support for TDM software in South America. Located on the island of Florianópolis in Brazil's Santa Catarina Province, Adept Systems has many years of experience with tool data management and even began developing its own tool management software 13 years ago. Now, the Adept Systems team in Brazil will manage sales and service for TDM software, including installation, software training, and support.

In addition, Adir jr. Zonta, an Adept Systems sales specialist, will also begin representing TDM Systems directly in the Brazilian industrial center of São Paulo. He and the rest of the Adept Systems team will present TDM Systems software at future trade shows all over South America.



The TDM team at Adept Systems

„Metal cutting is one of Brazil's most important industries, making it an ideal market for TDM products,“ says TDM Systems' Managing Director Jürgen Auer when talking about his company's growing prospects in South America. „Not only does Brazil have big production companies with huge production facilities, but many European companies are also active in Brazil, making it a highly attractive trade area for TDM products.“



Adir jr. Zonta of Adept Systems (middle) in a conversation at the Ferramentaria, Modelação e Usinagem Trade Show in Joinville in Southern Brazil

Be sure to visit the Adept Systems homepage:  
[www.adeptsystems.com.br](http://www.adeptsystems.com.br)

## TDM Team

### A New TDM Systems Sales Manager in Western Europe

TDM Systems GmbH has expanded its international sales team with a tool data management specialist for France and the Benelux Countries. On January 1, 2006 Patrick Bliki became the on-location contact partner there for TDM customers and inquiries.

He is in charge of advisory services and sales for TDM tool data management software, and also represents TDM Systems at trade shows like the INDUSTRIE PARIS. „Markets in these four countries are important targets for us,“ he says. „That's why we need a team member there who understands – in every sense – the ‚language‘ of our customers and others who make inquiries,“ says TDM's Export Director Dr. Heinz Fink.



Since January 1, 2006 Patrick Bliki is working as TDM Area Manager for France and the Benelux Countries.

Patrick Bliki not only has sales experience, but he also knows his way around in the world of software and tool data management. He spent several years in the area of NC programming and tool management for S.A.B.C.A., the renowned Belgian aerospace supplier (currently also a TDM customer). His path to TDM software led through the WALTER-Benelux Company, where Patrick Bliki was responsible for sales of the TDM tool data management software.

Among Patrick Bliki's customers in his sales area are not only S.A.B.C.A. but also NMBS/SNCB Belgian Railways, Curtil SA (France), and companies from industrial centers in The Netherlands like Doesburg Components B.V. in Nieuw Bergen, IHC Holland, and the MGG Group B.V.

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## Successful TDM-User

### A „Digital Economizer Valve“ at Canada’s Velan Company

**The Velan Company makes a wide variety of steel valves in its four Canadian plants in Montreal. One side-effect of this product spectrum is a constantly expanding tool crib. Now Velan uses TDM software to manage its tool crib efficiently and save hard cash when placing orders.**



Daniel Pagé’s aim was greater efficiency in tool dispensation and ordering processes for all Velan equipment systems in Canada and the USA.

programming activities, including geometric data, feed & speeds, metal-cutting parameters, and collision data. Last year, Velan also began implementing the TDM software in its American plant in Vermont as well.



A custom-made Velan product for the world’s largest particle accelerator in Geneva: low-temperature valves for liquid helium at 1.8°C above absolute zero.

More than 100 CNC machines are used to make these valves. 50% of the production process consists in milling and turning. Velan’s tool crib includes 9000 components, and each of the four Velan plants manages its purchase orders independently of the others. Daniel Pagé, Supervisor for CNC Programming and TDM Applications at Velan, remembers the past: „The lack of efficiency in our order placement processes and the ever-growing intricacy of our tool crib left us no other choice. We had to do something!“

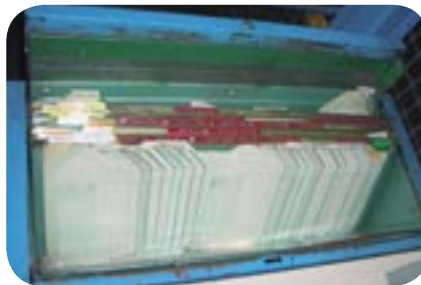
#### The end of the old index card system

With this in mind, Velan began replacing its old index card system in 2003 with TDM Systems tool tracking and data management software. Now, with TDM, all four Velan plants in Montreal can place their orders independently and manage their tool dispensers digitally. The result: work at Velan today is not only simpler but also much more efficient.

Before TDM was introduced, tool dispensers in Velan’s individual plants were not linked up with one another. Today, on the contrary, tools can be ordered on a cross-plant basis as necessary. Even more important, according to Daniel Pagé, is the ability to bundle orders from the individual plants. Considerable savings are now achieved with rebates in this connection. And Daniel Pagé names a further benefit: employees are more motivated due to the increased simplicity of operation.



New motivation at Velan: TDM makes work easier.



Old Index cards  
Tool dispenser management at Velan in the past: with index cards.

#### NC programming via interface

In future, Velan will save even more costs in NC programming. Velan began using CATIA V5 2 years ago for its NC programming processes and now creates roughly 10,000 NC programs every year. In order to make better use of the TDM software’s capabilities, a direct TDM Systems interface is now in the planning stages. It will supply all tool data required by Velan’s NC

# VELAN

### About Velan

Velan is one of the world’s leading manufacturers of industrial steel valves with twelve specialized manufacturing plants, including five in Canada and U.S.A., four in Europe, and three in Asia. Velan employs over 1,500 people, 75 % of which are located in North America. Velan is the largest manufacturer of industrial steel gate, globe and check valves in the world. They also offer an advanced line of highly competitive industrial ball valves with metal and resilient seats, Torqseal triple offset butterfly valves, as well as high-performance all stainless steel knife gate valves.



## METAV 2006

**PERSONAL INVITATION**  
**METAV 2006**  
June 20-24, Düsseldorf, Germany

**TDM**  
systems

Answer questions from the  
**TDM RACING QUEEN**  
and win your personal  
"Hot Racing Tire" plus a  
free gift certificate for TDM's  
**TDM 3D Bodykalender 2007!**

Use TDM to fill up your database:  
Just one pit stop  
to a full tool database!

Visit TDM Systems at the following stands:

Hall 9 · Stand B 11 (WALTER AG) • Hall 10 · Stand B 53 (Sandvik Coromant)

### Coming Events

#### Trade Shows & Events

METAV, D-Düsseldorf	20. – 24.06.2006
IMTS, US-Chicago	06. – 13.09.2006
AMB, D-Stuttgart	19. – 23.09.2006

#### TDM Software Training

TDM Base Module V4	12. – 14.06.2006
TDM System User V4	26. – 27.06.2006
TDM Tool Crib Module V4V4	28. – 29.06.2006
TDM System User V4	04. – 05.09.2006
TDM Base Module V4	06. – 08.09.2006
TDM Form Generator V4	17. – 19.10.2006
TDM AutoCAD	08. – 08.11.2006
TDM Base Module V4	13. – 15.11.2006
TDM Tool Crib Module V4	16. – 17.11.2006
TDM Form Generator V4	05. – 07.12.2006

### TDM Releases

#### Current TDM Versionen

TDM V4	4.2
TDM Data- and Graphic Generator	4.2
TDM Tool Crib Management	4.2
TDM Management of Measuring Products	4.2
TDM Fixture Management	4.2
TDM Presetting Module	4.2
TDM Ordering Module	4.2
TDM Client Management	4.2
TDM Facility and Maintenance Management	4.2
TDM Barcode Modul	4.2
TDM Production Document Management	4.2

### IMPRINT

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**T | D | M**  
systems  
A Member of the Sandvik Group