

TDM MESSAGE



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“We are the pioneers in tool data management. In the 1990s, we revolutionized the manufacturing industry with our software and we are still a driving force in this field now, in the age of Industrie 4.0.”



25 years ago, six visionaries founded TDM Systems. At a time when cell phones were still a niche product and networking referred to personal relationships, they predicted that digitalization would shape our future and therefore fundamentally change production processes.

Today we know that this prediction has become reality.

It was the right decision to become pioneers and introduce the first software-based solution for Tool Data Management onto the market.

Since then much has changed from a technological perspective. The advancement of technology has changed our lives significantly, particularly in the case of communication and production. TDM Systems is also no longer the same company it was a quarter of a century ago; it has grown from a startup business to become a global benchmark in the field of trend-setting solutions for Tool Lifecycle Management.

As Managing Director, I have spent the last five years helping TDM Systems not only to adapt to the requirements of Industrie 4.0 and digital transformation, but also to strengthen its role as a pioneer, which has involved developing the first cloud solution for Tool Data Management. We are also planning further product developments and trend-setting solutions that require us to revamp our company in order to secure the future. We are therefore currently creating new departments and roles. You can find out more about these new departments and the people involved in this issue of TDMmessage.

One change is affecting me personally: after five years as Managing Director of TDM Systems, I will be retiring this fall and handing over to my successor, Dietmar Bohn. Dietmar is a man with a great deal of experience and creative enthusiasm to continue the TDM success story in the spirit of the company's founders (see interviews on page 6 onwards).

I'd like to take this opportunity to thank all employees of TDM Systems, who not only make the company what it is but are also responsible for its success, as well as all of our partners and customers. I have always been grateful to work with colleagues who are working towards the same goal. And as we all know, you meet everyone twice in life.

All the best,

A handwritten signature in black ink, which appears to read 'Peter Schneck'.

Peter Schneck

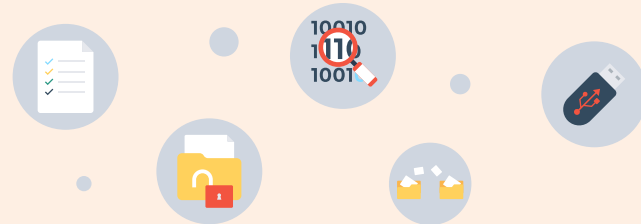


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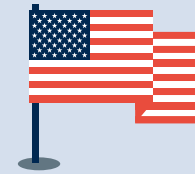


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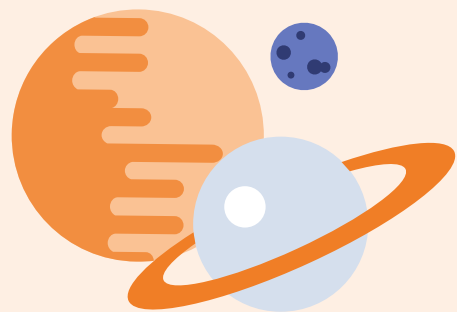
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A company undergoing change

TDM Systems was founded during turbulent times 25 years ago (see also page 36 onwards) and now operates in a very dynamic environment. The backbone of this was and is the management team, in particular the Managing Directors. In fact, there have only been two Managing Directors in a quarter of a century. Founder member Jürgen Auer managed the company with a steady hand for 20 years. Peter Schneck took over five years ago. There will be another change of hands this fall. During the interview, Peter Schneck looks back and his successor Dietmar Bohn is introduced.



Mr. Schneck, where was TDM Systems when you became Managing Director five years ago?

That was an exciting time. The company was at a crossroads: either it could remain a small software company with a complex niche product in a confined German-speaking market or it could embrace the opportunity to become a serious competitor on an international scale.

Looking at the company now, it's clear which route you and your team decided to take.

Correct. We decided to take on the challenge, which is an ongoing process as the competition never sleeps! Now we are internationally recognized as a competent partner, not only for pure Tool Data Management but throughout the entire tool lifecycle.

How did you do it?

We realized that we needed to make a serious investment in the development of a state-of-the-art software architecture with a good user experience and, in addition to the complex, comprehensive TDM solution, introduce an entry-level product that would enable small companies to successfully manage the digital transformation. Further keys to success include a clear commitment to good service that focuses on the user and comprehensive support as offered by our parent company SANDVIK.

What have been your personal highlights in terms of how the company has developed over the past five years?

We've achieved a lot in the past few years. I couldn't possibly mention everything. So in brief, we put a new spin on Tool Data Management, which now encompasses Tool Lifecycle Management. This gave us a new outlook and paved the way for new solutions; from production support with shopfloor management and machine process control to the integration of numerous CAM and simulation systems, right through to a cloud solution. We strengthened our position on the market and we are reaping the rewards. We are now working with competent partners such as DMG MORI, GROB-Werke and SECO Tools to develop optimum solutions for our users.

Do you have any advice for your successor?

First of all, I'm delighted to welcome Dietmar Bohn to TDM Systems. He has the ideal skills to further develop the company. From my point of view, it is important to focus on new business models in future. I'm thinking specifically of data services. These are the key to success.

Mr. Bohn, you were recently employed by a very large software company. What appeals to you about the comparatively "small" TDM Systems?

TDM Systems seemed an obvious next step along my career path. As an electrotechnical engineer, I've always felt completely at home in the production industry. I spent the first 14 years of my professional life working for Heidelberger Druckmaschinen and the same amount of time supporting SAP customers from the same industry. Production and software expertise is what TDM Systems is about – and the same goes for me. Together with the team, I know I can achieve a lot here and apply my many years of experience in company software to the entire value added chain. Ultimately it's about helping our customers to become even more successful, even when faced with the challenges of Industrie 4.0.

You've already said that production and software expertise is what TDM Systems is about. What caught your attention as an "outsider"?

TDM Systems is well and truly established on the market. Customers value the proximity to tool manufacturers, the longstanding expertise in Tool Lifecycle Management and the company's association with the SANDVIK Group. This not only reassures customers, but also provides a strong basis for state-of-the-art and trend-setting solutions such as the first market-ready cloud solution for tool data management.

What is your 100-day plan?

First, I want to focus on the three Ps: People, Products and Processes. In that order. The most important thing is to work closely with the entire team and understand their vision. This also includes building up the all-important network of customers, partners and people within the SANDVIK Group as quickly as possible. On this basis you can then develop the vision, strategy and plan for the new chapter of TDM Systems, communicate this to everyone and work as a team to implement it.

What do you think are the greatest challenges within the industry and how can TDM provide support?

Production companies are under pressure from Industrie 4.0 and digitalization. They are all looking for ways to increase their productivity by introducing automation and new technologies. Data and data services are becoming increasingly important. TDM Systems is following the right strategy here and working on the most important issues: user experience, cost-effective entry-level solutions and a cloud solution. We will also be expanding our data services considerably in the near future.

Where do you see TDM Systems in three years?

At the moment I can't make any detailed predictions without getting to know the company better. But I have some ideas and am confident that TDM Systems will experience strong, profitable growth and penetrate further important markets as a global player. We will further develop the cloud portfolio, differentiate ourselves more clearly and create stronger networks with customers, tool manufacturers and software companies. Seamless production will continue to be the primary focus. I'm looking forward to this new challenge and to focusing on the first, most important, of the three Ps: the people, the colleagues, who will be with me on this new journey.



„We will continue to develop the Cloud-Portfolio successfully, differentiating us even more, and forming more intensive networks with customers, tool manufacturers and software companies.”

Engineering, Product Management, TOP (Technical Order Processing)

Communication at all levels: Engineering supports Sales and project management in Presales. Product optimization projects are bundled together here.



Portrait (page 14): Bernhard Weihermüller/
Product Portfolio Manager

Digital Business (new department)

Silicon Valley in Tübingen: The team is on the search for new solutions. The focus is on new, future solutions that are geared towards the user.



Portrait (page 10): Adir Zonta/Business
Development Manager, Data Services

Technology/Standard Development

Ordering system 4.0: Colleagues from Standard Development work on application development and project management. At the heart of this is the ordering system.

Global Line Development

Global Line in focus: The department responsible for the Global Line software takes care of everything to do with the software concept and architecture.

Customer Development

Fulfilling customer requirements: Customer Development is responsible for customer orders, specifically in the context of tool crib modules and databases.

Sales (close collaboration with TDM Systems, Inc.)

A clear vision: Sales combines internal sales, commercial order processing and field service.



Portrait (page 19): Matthias Gröger/Area Sales
Manager for Leipzig

Marketing

In brief: The Marketing department is responsible for external and internal corporate communication.

Management:

Clock for progress: The management decides on significant goals. It is the impulse generator, but relies on the know-how of the employees. Human Resources are located here.



Portrait: (page 40): Alice Sorge,
Assistant of Managing Director / HR

Finance

With a sharpened pencil: The team comprises Purchasing, Finance and Controlling. The fundamental goal here is accuracy.

SMS projects

With state-of-the-art communication: This department conducts its own customer projects and supports the sales department with after-sales.

Tool Data Projects

Tool data at a glance: The main focus here is the content and conventions relating to tool master data.

Documentation and Translation

Technical documentation: The Documentation and Translation department coordinates and maintains the user manuals for the TDM modules.

CAM Integration

Improving production processes: CAM Integration colleagues are responsible for automating tool changes, minimizing setup times and preventing errors.

Service/Projects

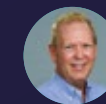
Always ready to listen: The Service department is in direct contact with the customer and is on hand to help with any problems, large or small.

Service Desk

International support: The Service Desk processes customer queries from around the world and draws up FAQs and statistics.

TDM Systems, Inc.

The bigger picture: TDM Systems, Inc. is responsible for presales, sales and service, installations and training in the USA and Canada.



Portrait (page 20): Gregg Bigleman/
Director of Business, North America

INFINITE EXPANSE - the TDM universe

Flat hierarchies, fast decision-making processes, exciting opportunities for development and a focus on a good work-life balance make TDM Systems a fair employer with interesting future projects. The company offers diverse opportunities for young & experienced professionals and high-flyers looking for new challenges. The various departments and career paths and the people behind them are presented below in our very own TDM universe.



An expert in many fields

As the first Business Development Manager for Data Services, Adir Zonta is returning to TDM Systems from Sandvik Coromant.



Adir Zonta, new Business Development Manager for Data Services at TDM Systems since June 2018, has ambitious goals. One thing he talks about a lot is creating a Spotify effect. To achieve this, “we need to rethink the role of the technician. We need to focus entirely on the person and not on the technology. It is the outcome that is important, not the output alone.” A concept that he was not familiar with as a young mechanical engineer. Today he finds it absurd that business customers are still fobbed off with technical solutions that make him think of the 1980s, when PC users had to rely on the help of a nerd from their circle of friends or spend hours reading manuals in order to install a printer. Large companies now have the resources to implement complex solutions. According to the Brazilian-born expert, small companies will face huge challenges in this regard.

In future, TDM Services should be as user-friendly as Spotify, where users can stream music without having to worry about compatibility between different data formats. Smaller companies in particular back off from the time and effort involved in onboarding their tool data. “Unfortunately, the process is still too complicated and time-consuming, which is preventing many companies from optimizing their processes with TDM Systems”, says Zonta. He believes that data availability should also be optimized. Currently, the data for a new cutting tool is not available in the systems or data exchange platforms until months after market launch. Data quality also needs to be

improved. Based on experience, many data errors do not appear until the end of the data chain, i.e. when it is the most time-consuming to correct them. Neither is the reproducibility of data as sophisticated as Zonta believes it should be, as the standards and definitions of tool manufacturers often differ, despite the existence of ISO standard 13399. Something that systems such as TDM need to take into account in order to give customers the seamless user experience they expect. In the early summer, the experienced mechanical engineer has yet to reveal exactly how these new services and solutions will be implemented by his department. The first details may emerge in September. According to Zonta, tool manufacturers will also be on board in future and TDM Systems will develop an integrated solution “that supports both suppliers as well as users”.

The fact that Zonta is already able to outline the challenges faced by his team so clearly is thanks to his professional background. Even though he has worked for the Sandvik Group in Sweden for the past three years, Zonta has known TDM Systems for a very long time. In the early 2000s, he worked for a partner company of TDM Systems in his home country of Brazil, where he sold TDM software for around seven years. When he and his wife both decided to work abroad, he eagerly accepted an offer from TDM Systems in 2011, thereby switching sides. Now he was supporting TDM sales partners from Tübingen.



During his four years in Tübingen, he cultivated contacts with colleagues throughout the Group and again jumped at the opportunity to take an exciting job at Sandvik Coromant Sandviken, Sweden. This was another important time for him. On the one hand, he got to know and love the pragmatism and easy-going mentality of the Swedes in his role as Digital Machining Product Manager. It was all about “simplicity and feasibility”. A mindset that Zonta shares. On the other hand, he had very little to do with tool data at Sandvik, instead focusing on production and the machining process. That gave him a new perspective. He was encouraged by his exchanges with IT specialists and project developers from Silicon Valley. “They too test out their ideas and then throw at least 75% overboard”, says Zonta. They have developed methods for this that “we should look at in close detail and adopt for ourselves”. Furthermore, they don’t introduce any solutions onto the market that “do not represent the voice of the customer”. The family man puts his return to TDM Systems in Tübingen down to the company’s focus on digitalization, borne largely of its association with ALLTING. With his new team, he can now not only experiment with the way solutions are developed in Silicon Valley; with TDM Systems, he is certain that he can help shape the future.

The expert in the data and machining world is constantly reaching for the stars. “I’m confident that we will grow rapidly, as we have both the expertise and the enthusiasm to drive forward digitalization for our customers.”



Which magazines do you read online?

Quartz www.qz.com



Where would you like to travel to?

Svalbard
(Spitsbergen)



Who is your favorite football player?

Pelé



Would you replace your car with a self-driving car?

Absolutely! It’s exciting to think that my children won’t need a driver’s license.



What would you take with you to a desert island?

Internet connection.
So I could learn how to survive and return.



What makes you happy?

Hearing my daughter laugh

A RUNNER IN FULL FLOW

Bernhard Weihermüller is the first Product Portfolio Manager at TDM Systems

Bernhard Weihermüller goes running several times a week to clear his head. Alone and with friends. He runs so far every month that he easily covers more than a thousand kilometers a year. And it shows in the physique of this tall man in his late forties. But it's not just his physical fitness that is striking. His vitality, his ambition are also infectious. He's clearly a warrior in this regard. Looking back, he's always been comfortable in uncharted waters, including in his professional life. It is not in the enthusiastic marathon runner's nature, however, to race ahead and not look back. On the contrary. He is passionate about forming interdisciplinary teams that pull together to achieve shared goals.

A recipe for success for Swabian-born Bernhard, as proven time and time again in his previous professional roles. And he's committed to doing the same at TDM Systems. First of all, this means getting to know his colleagues and customers. Something that he is looking forward to and sees as essential element of being a successful Product Portfolio Manager. This is a new role that has been created at TDM Systems as part of the future expansion of its product range. Weihermüller, who officially joined the company on July 1st extends the current management team consisting of the Managing Director and the 3 VPs of Sales, Service and Technology.

Even though his job and his employer have changed, Bernie (as his friends like to call him) still has the same way to work. His "old" office at Walter AG is less than a hundred meters from his new office. At Walter, he carried out various different roles in the Marketing department, and also worked in the Marketing and Product Management department for the tool manufacturer in the USA. Overseas, he was heavily involved in the pilot phase of

the merger between Walter, Titex and Prototyp. Back at Walter in Germany, he spent the last seven years working on the development of digital solutions from a strategic and operational standpoint and also developed a web platform. As E-Marketing & Sales Support Manager, he worked intensively on the digitalization of tool data. Experience that he'll use to initiate a change process at TDM Systems.

"I enjoy exploring uncharted territory and embrace change. I therefore want to be onboard when the digital transformation makes its way into the machining industry."

Weihermüller believes that TDM now has the potential for significant growth due to the increasing desire of production companies, as well as external pressure, to delve into the world of Industrie 4.0. To do so, product development has to meet the expectations of potential customers, which vary widely in terms of the size of the company and their requirements. According to



Weihermüller, understanding, bundling together and then prioritizing these different interests in order to create a roadmap for product development is currently one of the most urgent tasks, and he intends to “give it everything he’s got”.



Words taken from the man himself. This is an attitude that he has applied to many things in his life. In the past, he has actively searched out tasks “that require commitment and a structured approach in order to create something new”. As E-Marketing & Sales Support Manager at Walter, for example, he had to approach digitalization from the ground up to establish it within the organization. Some of the highlights from his time there show just how far he has come: over a quarter of a million fans

on Facebook, apps for mobile devices, one of the leading online catalogs in the tool industry and a massive increase in Walter’s turnover from e-commerce. On his return from the USA, Weihermüller not only shared his experiences from the merger of Walter, Titex and Prototyp with his colleagues in the “Post Merger Integration” department in Tübingen; he also developed the product introduction process for product management and at the same time coordinated the integration of the company Valenite.

To expand his creative freedom even further, Weihermüller decided to move to TDM Systems. This move was no coincidence. “Day after day at Walter, I see how important data, specifically tool data, is for the optimization of company processes. For the tool manufacturer, the focus is very much on the “cutting edge”.” As part of the SANDVIK Group, Weihermüller believes that the expertise in digitalization at TDM Systems is well and truly anchored into the company’s DNA, which was his motivation behind taking on the new role. Being present “to experience significant changes such as the digital transformation in the machining industry”, as he puts it, inspires Weihermüller. He believes that the company is in a strong position to meet the requirements of customers and help shape the future of the industry.

His motivation is infectious. Peter Schneck, Managing Director of TDM Systems, sees Weihermüller as “a man who sees and grabs opportunities”. An attitude that the Product Portfolio Manager adopted from a young age. After becoming a graduate engineer (BA) – specializing in mechanical engineering – he decided to broaden his range of skills by studying for an MBA in international marketing. Thanks to this decision, he always approaches and evaluates technologies from the perspective of their economic efficiency and customer requirements. Schneck is confident that this attitude will flourish at TDM Systems and therefore hopes to keep Weihermüller’s commitment to TDM Systems “in full flow for the long run”.



Which magazines do you read online?
SPON – **Spiegel Online**



Do you wear a watch?

Yes, a GARMIN 35 –
synced with my iPhone:
calls, calendar & sports
info on my wrist



Would you replace your car with a self-driving car?

If a self-driving car can do everything I need a car to do – **then definitely!**



What food do you serve to friends at home?

Something tasty on the barbecue
and, depending on the season, home-grown fruit, salad and vegetables.

From user to salesman – Matthias Gröger knows what he's talking about!

Looking for an update

Matthias Gröger was only looking for a software update on the TDM website when he saw a job advertisement that was made for him. It was for an Area Sales Manager for Leipzig, Germany. Born in Saxony, he knows the area like the back of his hand. The 34-year-old had already been using software from TDM Systems and was impressed by the user-friendliness of the product. The role of Area Sales Manager therefore suited him perfectly and he jumped at the opportunity to apply for a job he knew he would love.

Computer technology is my thing

Straight away, Matthias Gröger decided to take his destiny into his own hands and, in his words, made a "professional U-turn". Originally employed as a programmer by a company in Saxony, he had worked intensively with TDM software, but as a user who initiated the introduction of the software as well as support. Gröger started his professional career there as a cutting machine operator specializing in CNC milling and took courses in turning. But he was always passionate about computer technology.

There's a solution for everything

As Area Sales Manager, Gröger now has the opportunity to work independently, meet new people and find solutions for the many and varied requirements of TDM software – a job that requires both organizational skills and commitment. "I love being in contact with customers," says Matthias Gröger. For him, the focus on finding the right solution, the modular structure and the future-proof reputation of the brand are unbeatable.

The team at TDM is worth its weight in gold

The father of three has really found his feet. Since joining the company in February this year, he has learnt many new things, met several new colleagues and spent a lot of time in Tübingen. "I was made to feel very welcome; everyone was extremely friendly and always willing to help," he says, recalling his first few weeks at the company. Gröger wanted to take another opportunity to express his gratitude. "The team spirit among colleagues at TDM is worth its weight in gold. It's important that it is recognized."



TDM Systems, Inc.: professionally positioned for best customer service

TDM Systems is expanding. Not only is the number of employees at the headquarters in Tübingen increasing, the team in the USA, which until now has been relatively small, is also getting gradually bigger. In 2006, the Tübingers braved the journey across the pond. The subsidiary in Chicago and the founding of TDM Systems, Inc. are important milestones in the company's history.

The TDM experts divided the large North American market into three regions: the East and Canada, the Central region and the West and Mexico. The team at TDM Systems, Inc. grew to seven people, distributed throughout the entire continent. Since January 2018, as Director of Business in North America, Gregg Bigleman has been responsible for all business processes in the USA and understands the importance of good teamwork. "I count myself extremely lucky to lead such a professional and hard-working team. It makes it easy to focus on what's important: our

customers." Communication is seamless, even though the team doesn't meet in person every week, according to Bigleman. The team is always in close contact via e-mail, phone and Skype thanks to modern technology.

Divided into Sales, Service, Support and Management, the colleagues are often on the road, understand the importance of personal contact and are always on hand to offer their customers advice and support. The most important thing is direct contact with the customer. That is the only way to really understand exactly what the customer wants the software to do.

The team at TDM Systems, Inc. now supports a large number of innovative customers. This includes large and small companies, oil and gas companies, the aviation and automotive industry as well as the machining industry.

The approach that has been established in Germany also works in the USA: extensively tested solutions and modules that are programmed, tested and further developed on the basis of years of experience – everything you need for efficient Tool Data Management that is "made in Germany".



Gregg Bigleman

— bundled power
from the States

"I pray for
patience
— but I want
it now!"

Whenever Gregg Bigleman enters a room, it's clear to see that the American from South Carolina has a lust for life, exudes positive energy and means what he says. He believes wholeheartedly in his work: **making TDM Systems attractive to customers in the USA.**

“We’re not only selling a piece of software. We’re also selling solutions and the opportunity to save a lot of money.”

TM: Gregg, where do you get your energy from? How would you describe yourself?

GB: (laughs) My impatience is both my strength and my weakness. When working on projects, I can usually see quite quickly where there are problems and where there are opportunities and am almost too impatient to endure the change process. I want to experience the improvements immediately and see straight away how the ideas turn out in reality. You could say I like to challenge the status quo.

TM: So you’re a man of action. Have you always been that way?

GB: I think I was born that way. When I think about my father, I think of an extremely hard worker. Nowadays we’d call him a workaholic. He insisted that I looked for a job when I was 16 and still at college. This meant going to school in the morning and working in the afternoon. That’s the way it was in our family.

TM: Wow, that’s really young. You were clearly ambitious. How did your professional life continue?

GB: I have been working in the production industry for 42 years and after all those years am happy to say that I have found my dream job. Thank God! Production is my passion. For the first ten years I worked in manufacturing engineering, followed by many years in traditional operations busi-

ness, and finally I found my way into sales. I worked in the fields of rail transport, oil and gas extraction and the mining industry. I therefore have a broad range of experience. As far as I’m concerned, sales is the superior discipline. It’s not for everyone. You either have a flair for sales or you don’t. I never thought, for example, that I was cut out for sales, but now that I’m doing it I’m having great fun.

TM: You call yourself a production enthusiast - what do you mean by that?

GB: I know the industry like the back of my hand. I’ve been a customer myself, so I can see things from their perspective and understand exactly how to meet customer requirements. I always see us, TDM Systems, and the customer as a team. The moment communication begins, we are all in the same boat, working towards the same goal and trying to do our best to meet the requirements of the company in question.

TM: You must have to be quite sensitive and know how to deal with people.

GB: That’s exactly right. It’s all about motivating people. I actually have graduated in the field of “leadership and motivation”. This knowledge is extremely valuable. Especially for of our team at TDM Systems, Inc., which covers virtually the entire USA.

TM: As Director of Business in North America, you are responsible for this team. How did this come about?

GB: I joined TDM Systems in January, although I wasn’t originally looking for a new job. I had known Eugen Bollinger, Vice President Sales at TDM Systems, for a long time and knew that we had similar views on how to be a good service provider. And the software is impressive – a great product that I was keen to work with. One conversation led to another and at some point I ended up with the signed employment contract in my hands. It was one of the best decisions I’ve made. For me, TDM Systems is “just the right fit”.

TM: What motivates you? What interests and excites you?

GB: I thrive on direct contact with customers. And with such great solutions up our sleeve and a market that is full of potential, it’s an exciting job to be in. I love working with users to find out exactly what they need. Which of our software modules can help companies to become even more successful? We’re not only selling a piece of software. We’re also selling solutions and the opportunity to save a lot of money. And most important of all, the customer is the focus of every single employee at TDM Systems.

“TDM and TDM Global Line are like a buffet; TDM Cloud Line is like tapas.”



TM: What do you think is TDM Systems’ secret to success?

GB: To make it more visual, our software and the individual modules are much like a large, well-presented buffet. You can quickly see what’s offered and choose exactly what you want. And the advantages of a buffet are that I don’t have to put everything onto my plate in one go and have the choice of what I want to start with. I can even start with dessert (laughs). And if the right dish isn’t there, we’ll simply prepare another. “Tailor-made” is the key word here, as we are able to adapt and optimize the software to individual customer requirements.

It is our job to accompany customers on their journey through the TDM world and show them the best starting point. Compared to TDM and TDM Global Line, TDM Cloud Line is small and light – a bit like tapas, which you can pick at but still fills you up.

TM: What are your goals for the future?

GB: We are going to grow considerably. The North American market has huge potential. TDM is the main piece of the puzzle that companies need for the production of the future. With Sandvik and its new digital product range, we are unbeatable.

HELLO TDM SYSTEMS, INC.



DENVER / COLORADO AREA

Gery Buk / TDM Service Manager North America

A few kilometers in front of the gates of the lively city of Denver lies the Red Rocks Park. With its rock formations, amphitheater and unique natural environment, the mountain park in the foothills of the Rocky Mountains is a fascinating place.



MONTERREY, MEXICO

Maggie Gonzalez / Inside Sales - North America

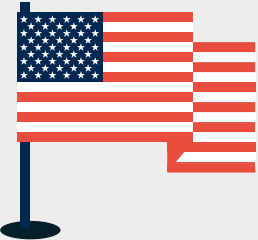
Monterrey is a vibrant city. The best way to explore it is simply by drifting. Every visit should include a walk along the promenade of the artificial river, Santa Lucia.



CHICAGO

Henry Miller / Service

Chicagoans love baseball like no other sport. A Chicago White Sox game is therefore a must! Follow this with a visit to one of the many craft beer bars or look out onto the city from the biggest skyscraper – the Willis Tower.



1



2



DETROIT

Dave Morley / Sales

Everyone associates Detroit with cars. A visit to the Henry Ford museum or a guided tour through the Ford factories should therefore be on every itinerary.



BUFFALO

Dan Speidel / Sales

Buffalo is a city full of architectural treasures. One particular gem is the Darwin D. Martin House built in 1905. The house was designed by Frank Lloyd Wright and was one of the most important projects in his Prairie School phase.



CHARLESTON

Gregg Bigleman / Director of Business, North America

Known for its rich history, well-preserved architecture, excellent restaurants and hospitable citizens, Charleston is the perfect travel destination.



OHIO

Eric Graber / Service

Ohio is known for its fascinating landscape. Visit Lake Erie with its chain of islands, the Cuyahoga Valley National Park or the numerous nature reserves, where everyday stress ebbs away.

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7

6

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Shopfloor Management:

What matters is the workflow

User-friendliness, digital networking and process optimization: TDM Systems is continuously expanding Shopfloor Management under TDM Global Line.

“With the Shopfloor Manager in TDM Global Line, customers can combine all workflows individually with the help of a configurator.” For Volker Schwegler, Senior Consultant and Product Manager at TDM Systems, the times when production processes had to be adapted to inflexible software are over. Thanks to its modular design, Shopfloor Management can be adapted to all conceivable conditions relating to order planning, configuration and workflow, whether for the crib, assembly, presetting, the machine or the secondary crib. The tool list forms the basis for every calculation of requirements. “Whether it’s orders, individual workpieces or NC programs, ultimately everything is broken down into tool lists”.

The user’s situation is the crucial factor

During development, TDM Systems was always oriented towards each user’s respective situation. Every person involved in a process should be able to view precisely the information they require for their specific task. Another important consideration: the real tool circulation according to the respective configuration. Typically this involves a crib, a presetting device and a machine, whereby tasks are assigned to each of these areas. Typically, but not in all cases.

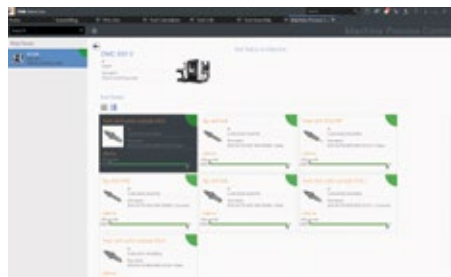
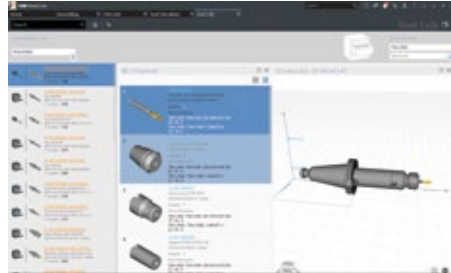
Schwegler: “Many companies combine assembly and presetting together in a tool room, for example. In this case, both areas can be combined to form a ‘Tool Room’ cost center, whereby all actions are carried out in a single screen.”

Further real-life examples: Tool measurement is usually integrated into turning machines; in the case of milling or drilling machines this takes place using presetting devices outside the machine. Some machines nowadays automatically measure their tools themselves, while other machines do not. Previously, tools had to be placed in the crib after use, despite the fact that they should be kept close to the machine if they are needed again. All of this can be displayed precisely in the TDM Shopfloor Manager.

Everything freely configurable

Thanks to its modular design, the software is freely configurable without having to adapt the programming. Schwegler: “This way, the software follows the process, not the other way round.” This flexibility also drastically reduces the effort involved in making individual adaptations. At least 80% of customer requirements can be covered as standard.





Tool assembling or tool condition: all important information are captured at a glance.

Too much flexibility can lead to errors, however, if processes are combined in the wrong sequence. This is prevented by an integrated plausibility check, which only permits plausible sequences. "Soon we will also be able to only preselect those processes that are reasonable", promises Schwegler.

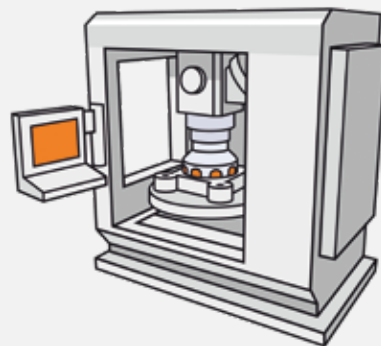
All actions to be carried out are displayed in the form of to-do lists so that employees can work through their personal tasks in the correct order. Additional tasks can easily be added to the sequence at any time. Users can configure the state-of-the-art interface according to their own personal requirements and preferences. What's more, in future, TDM Global Line will be available everywhere in production via web browser any time it is needed, also on tablets.

The TDM Shopfloor Manager is fully compatible with the inventory management function of the TDM Tool Crib Module Global Line. This means that even tool assemblies in secondary cribs and near the machine can also be managed. As such, employees always know exactly where the tool assemblies are and what condition they are in. Disassembling, reassembling and presetting are no longer strictly necessary, saving significant time and costs. "This gives every user the clearest possible overview of the tool circulation", says Volker Schwegler proudly.

MCC: Requirement Planning 4.0

With "Machine Control Connect" (MCC), TDM Systems enables machine tools, with their diverse range of controllers, to send and receive information via APIs (Application Programming Interfaces). The TDM Shopfloor Manager thereby integrates the machines into the data exchange.

There are several advantages to this. Employees now know not only which tools are in the machine, but also what condition they are in. This knowledge flows directly into the calculation of requirements. It also saves a lot of time when replacement tools are needed quickly. If the real data from older or simpler machines is not available, a planning approach is adopted. Both processes can be mixed - requirement planning will work in all instances.



Analysis software can also determine how individual tools behave during certain operations and whether that matches the manufacturer's specifications. Data does not only flow in one direction. Data can also be sent to the machine.

In future, it will also be possible to create orders directly in TDM Global Line, and these will then be used as the basis for the calculation of requirements. It makes no difference whether these are entered by hand or transferred from external systems such as an MES or ERP. TDM uses the information received to provide all of the necessary resources. After all, only TDM knows exactly which tools are in the machine and in what condition.

news

TDM USER DAY

TDM User & Info Day 2018

On November 20th, TDM Systems will be holding its annual User Group meeting. It will take place in the picturesque region of Allgäu, at DMG MORI in Pfronten, Germany. TDM Systems is the Preferred Partner of the machine tool manufacturer. There are likely to be many interesting insights into this cooperation at the User Day.

The TDM User Day will begin as usual with dinner together. On November 21st, members of the User Group will be presented with an extensive conference program and plenty of opportunities to exchange information.

Following the success of last year, TDM Systems will again be inviting potential customers to the TDM Info Day on November 22nd to give them a hands-on experience of TDM solutions in a more relaxed atmosphere.

Would you like to become a member of the User Group or participate in the Info Day? You can find further information at www.tdmsystems.com/de/tdm-arena.

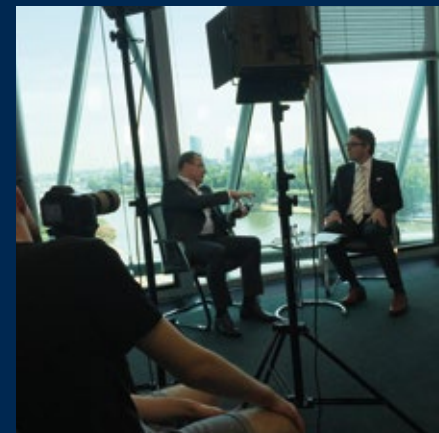
A new face in India

This spring, Viraj Shinde took on the role of TDM Product Manager at Sandvik Asia in India to take care of the needs and desires of existing and future TDM users there. In India, which is currently one of the largest growth markets in the world, massive investments are being made not only in infrastructure expansion, but also in the production industry. Together with its new Indian partner, TDM Systems is playing an important role in this and is thereby strengthening its presence in the Asian region – for greater proximity to its customers.



The benefits of digitalization in the machining industry

Mid of July Eugen Bollinger, Vice President Sales at TDM Systems had an unusual work day - in front of the camera for a video shoot from "The Business Debate" in Frankfurt. Eugen Bollinger answered questions from the doers of the online platform for executives and decision-makers as an expert for Industrie 4.0 and set up provoking theses.



A large industrial facility, likely an aluminum plant, with a robotic arm holding a long metal ingot. The background shows complex machinery and structural elements of the factory.

More time to generate revenue

Wagstaff fights information losses with Tool Lifecycle Management from TDM Systems. Having a clear overview of around 4000 tools pays off for the machine and equipment manufacturer in savings of both time and money.

Wagstaff Inc. plays a key role in the aluminum industry: The family business, which is based in Spokane, Washington, develops and manufactures equipment and systems for producing primary aluminum ingots and billets. The company was founded in 1946 and, since the 1960s, has been the market leader in aluminum direct chill casting, a process in which the aluminum melt is poured into a permanent metal mold. Since then, the company has grown steadily and today has subsidiaries all over the world, as well as over 300 customers in 58 countries. The plant in Spokane alone is around 133,000 sq.ft. (12,500 square meters) and covers all process steps from research and development, production, machining, installation and testing through to delivery. Meanwhile, the company's machinery has grown to include 30 CNC and 30 non-CNC machines. The number of tools in use has also risen. The increasing complexity presented the leading technology provider with several challenges.

Second-hand information

"At some point, around 2004, we realized how much money we were spending on lost information," remembered Jeff Smutny, Manufacturing Engineering Manager at Wagstaff. Some of the tool data was

in the process documents for each of the product lines; other data was stored in the CAM system and yet more data was in Excel sheets. Retaining an overview of this information and using it to fulfill orders proved difficult: "This approach was not very efficient and everyone seemed to have a different idea of how each tool was supposed to be used," explained Smutny. "It was costing us time and money."

Another problem was communication between individual employees and departments. For example, information was not exchanged sufficiently between NC programming and the shopfloor. There was no central database in which the master data of the tools was saved. "We were relying on second-hand data instead of having direct access to the source of the information," explained Russ Rasmussen, Manufacturing Engineering Technician at Wagstaff. This made crucial processes, such as the simulation of a workpiece, extremely difficult, since it was unclear whether the data in use was correct and up-to-date.

"At some point, around 2004, we realized how much money we were spending on lost information"

REMEMBERED JEFF SMUTNY, MANUFACTURING ENGINEERING MANAGER AT WAGSTAFF.

The Tool Data Management project gets the go-ahead

It was a visit by Smutny to the headquarters of Walter AG in Tübingen, Germany that initially triggered a significant change at Wagstaff. There, the engineer saw that Walter was using the Tool Lifecycle Management (TLM) system from TDM Systems and was impressed by the system's scope and capabilities: "It was clear that we needed a tool management system."

According to Dan Speidel, Director of Sales at TDM Systems, Inc., the TLM system ensures that tool data is available in the right place and at the right time. It connects CAM systems, presetting and crib systems as well as CNC machine control systems, but can also integrate PPS, ERP and MES systems on the planning and execution level. "To do this, the system must be able to integrate data from a variety of sources – from the manufacturer catalog to the 3D models developed in house – into a central data base," Speidel stated.

Thus, Tool Lifecycle Management influences the entire process, from tool selection through their use in production planning to tool use on the shopfloor. An important point to note here is that information gathered at each process step flows continuously back to the central database. From there, the data can be used across the entire network. This system was precisely what Wagstaff required.

On the way to increased efficiency

The first step in reorganizing to include the TDM solution was to define the tools – no easy task when there are roughly 4000 tool assemblies and many, many

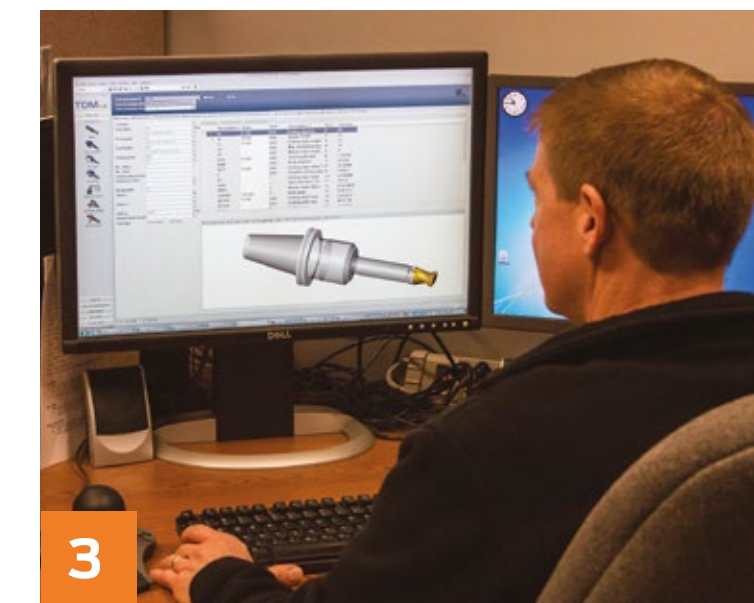
more tool items. However, this is one step that was definitely worth it, according to Speidel. In his experience, many companies are content to use the generic tool models of the CAM system, but there is a price to pay for that. It means that, in theory, when the actual available tools are not recorded in any database, the programmer needs to leave their desk each time to ask the tool dispensing team or search for the tools in question themselves. The result: lost time.

If, however, the programmer uses the actual tool graphics from the beginning instead of the generic models, then the guesswork and the associated uncertainty are avoided. If the available tools and items are recorded and listed, then, according to Speidel, efficiency and reproducible accuracy are within easy reach.

At the tool selection stage, several more questions need to be asked: Which tools are best suited for which process steps? And which combinations are particularly efficient? Today, Tool Lifecycle Management from TDM helps Wagstaff to quickly answer questions like this by providing the programmer with basic information about each of the tools and their potential applications. The system not only provides support in selecting the right tool for each NC operation; it also saves geometric and cutting data for every tool. It creates 3D tool graphics for NC programming and simulations, and saves tool lists from the NC programs for future use. In addition, the system saves cutting data, machining conditions and best practices so that tool use can be optimized further in the next project.



- 1 Machining of a large steel hydraulic cylinder weldment for one of Wagstaff's aluminum casting product lines
- 2 A pintle bearing for a navigation lock on the Columbia River that was machined on one of Wagsatff's five-axis CNC mills for a U.S. Army Corps of Engineers facility
- 3 Russ Rasmussen, Manufacturing Engineering Technician, using the TDM program



Faster and more precise

"These TDM functions not only offer great advantages when we are fulfilling repeat orders," Smutny continued, "but they also help us when we face new challenges." For example, the engineer explained, when dealing with a different product or application but the same material, the programmer can find out about the previous performance of the tools and assemblies. He concluded: "Overall, we have saved a lot of time and increased our precision."

Tool presetting via the software also helps to increase precision. For this, TDM is working with leading presetting manufacturers in order to create a two-way communication system: During the measuring process, the systems can access the nominal data of each tool assembly saved in TDM. The measured actual data is then transferred back to TDM. In this way, the quality of the data can be continuously improved. This data exchange with TDM is carried out via DNC or with tool chips. Information about the required tools and the NC programs arrives at the relevant machine at the same time as the current actual data of the pre-set tools, as well as graphics, photos and/or notes.

TDM Systems has seen that accessing precise tool data can reduce programming and setup times by around 25 percent. At Wagstaff, programming times have also been significantly reduced: According to Smutny, the company has grown considerably since TDM was introduced, but the programming team is still the same size it was in 2004. "We now spend more time on preparing jobs that bring in revenue and less time looking for information," Smutny stated with satisfaction. "TDM has expanded our scope hugely."

"Maintaining an overview of around 4000 tool assemblies and their items used to be a serious headache and cost us many man hours – these can now be used for value-added work," Rasmussen confirmed before pointing out another advantage: As the types of cutting tools, extensions, brackets and clamps, etc. the company has in its crib are now on record, it has been possible to reduce the crib inventory and the purchasing volume of new tools and items.

Rasmussen admits that the new system was not readily accepted by all colleagues to begin with, and many were hesitant. Today, it is very different: "One of our programmers recently said that he couldn't imagine doing his job without TDM now. TDM has become a crucial component for success in our work."

"We now spend more time on preparing jobs that bring in revenue and less time looking for information"

SMUTNY STATED WITH SATISFACTION.

4 Aluminum blanks, that will be rolled into thin sheets for tin or beverage cans.

From aluminum oxide to metal

The light metal aluminum is growing in popularity. No wonder that Wagstaff is growing and growing. After all, the systems sold by this company produce primary aluminum, a term which distinguishes it from aluminum that has been recycled from scrap. The starting material is a white powder: Aluminum oxide, which was previously obtained by refining bauxite.

Releasing the metal from its bond with oxygen requires an enormous amount of electricity for electrolysis. As aluminum oxide does not melt until it reaches 3700 °F (2045 °C), it is mixed with cryolite to lower the melting point to 1740°F (950 °C). When the process is complete, the aluminum melt is cast in order to make ingots or bars, for example. During direct chill casting, which Wagstaff specializes in, the fluid material is poured directly into a permanent mold made of metal – the ingot mold. Rapid cooling in the mold gives the cast parts a dense, low-pore structure with a smooth surface. This provides an ideal starting point for using aluminum in a wide range of industries.

ANNIVERSARY

A PARTY FOR THE TDM FAMILY

Colorful, lively, fun, relaxed, delicious and varied: in June, under the motto of “Family & Friends”, TDM Systems celebrated the company’s 25th anniversary.

There was a real family atmosphere at Walter AG’s premises, which was and still is the home of TDM Systems. It’s rare to see so many young families anywhere other than parks or swimming pools. That’s exactly what the group of trainees and managers from TDM Systems planned – a celebration for all TDM employees and the people who matter to them, i.e. their families and friends. As a thank you for all they have achieved as a team.

The varied program, put together by the TDM trainees, included something for everyone: technology enthusiasts took a guided tour through the Walter production department and the Technology Center, those with an artistic flair could have a go at mug painting and the more active guests, including several children, used up their energy on the bungee run, the bouncy castle or attempted the perfect shot on the goal wall. The organization team also catered for those who wanted to kick back and relax; the orange and white lounge and the comfy beanbags were the perfect setting for leisurely discussions in smaller groups. A world champion was also there. And no, it wasn’t the German football team, who were at least able to celebrate one victory



in the World Cup that night against Sweden. Tübingens' world barbecue champion Heinz Schaal made sure the guests were well fed. With delicious salads, potato röstis with cream cheese, salmon and rolled turkey roasts from the smoker, there was something for everyone.

One of the highlights of the day was a performance by the theater sports troop from the Landestheater Tübingen (LTT), who were presented with a difficult task. The improvisation artists rarely have terms such as ERP (Enterprise Resource Planning) thrown at them from their audience. But for a professional it's not a problem. So ERP became “Effective Rest Pause”. There was also much laughter when the actors asked what were the most commonly heard words in the office. TDM colleagues were in agreement; “I’ll leave it with you” was promptly shouted out from various seats.

And even though it was a celebration for family and friends, there was of course an official element to the event. But even this took place in the relaxed setting of the marquee. Peter Schneck, Managing Director of TDM Systems for five years, took an entertaining look back at the company’s history, emphasized the courage of the six founders and praised the excellent team spirit within the company (see box). Echoing the words of Tübingen mayor Boris Palmer, Mirko Merlo, Chairman of the Board of Walter AG and what you might call landlord of TDM’s home, underlined what is special about TDM Systems: the pioneering role of the company in the field of digitalization and its enthusiasm for shaping the future with its expertise.



Mirko Merlo,
Chairman of the Board of Walter AG
“There are three fascinating things about TDM Systems: the idea of Tool Data Management, which is both ingenious and an absolute must; the courage of the founders and employees to swim against the current; and the infectious pride of the entire team.”



Jürgen Auer
Founder member and Managing Director of TDM Systems for many years
“The entire success of TDM Systems is down to its employees. Although we don’t have employees here, we have a family.”



Boris Palmer
Mayor Tübingen
“TDM Systems is playing an important role in shaping the future. The company is the nucleus of a world we have yet to explore. As mayor, I am grateful to you for remaining loyal to the region.”

The story behind the celebration

In literal terms, the idea of Tool Data Management was conceived in Tübingen more than 30 years ago, in the mid-1980s, in Walter’s Building 9, which then housed one of the most state-of-the-art production environments of the time. Under the management of Walter Informationssysteme, the software, which was developed for internal purposes, soon found its way onto the external market. “What worked for Walter also worked for industrial production as a whole”, explains Peter Schneck, Managing Director of TDM Systems, who was heavily involved in the development of the Walter software solution from the start.

In 1993, TDM Systems GmbH was launched. Despite the economic crisis, the six founder members Jürgen Auer, Harald Kaiser, Achim Müller, Uwe Sauer, Gunther Schellenberg and Uwe Schütze risked the buy-out. Even then, they could see the future potential of Tool Data Management and digitalization. The foundation had been laid for the successful development of the company and over the years TDM Systems grew from a startup to become a global benchmark in the field of Tool Lifecycle Management. In 2012, the company founders took a step back from management and placed the company in the experienced hands of the SANDVIK Group, to which TDM Systems has since belonged as a 100% subsidiary.

Schneck was confident at the anniversary celebrations. “We are the pioneers in Tool Data Management. In the 1990s, we revolutionized the manufacturing industry with our software and we are still a driving force in this field now, in the age of Industrie 4.0.” He also emphasized, “Our “made in Tübingen” success story is thanks primarily to our excellent employees.”

The woman putting the human into Human Resources

The fact that the chemistry is right at TDM Systems is largely thanks to Alice Sorge. For many years, she has been responsible for Human Resources, as it is known today, within the company. For Sorge, however, this is not about resources, but about unique people who, together, make TDM Systems what it is.

Ms. Sorge, the market is currently excellent for applicants. Why should they apply to TDM Systems? What makes your company an excellent employer?

I would rather leave it to others to decide whether we are excellent. But I do think that we do many things very well. With our 25 years we are not really a traditional German SME. We have maintained the freshness and agility of a start-up and are forward-thinking as we work towards turning our visions into a reality. There is little routine in our company – the work is extremely varied and international. Many career paths are possible and titles do not mean much to us. At the same time, the affiliation to the Swedish SANDVIK Group offers our employees protection and many social benefits. And programs such as the Talent Management Portal encourage young people in particular to aspire to management roles.

Is that your trump card in attracting young talent?

Yes, exactly. TDM Systems brings both sides together: Each and every individual can, on the one hand, be agile, flexible and contribute their own ideas and, on the other hand, they do not have to dispense with the stability offered by the company. Even in our digital, fast-paced world, we offer employees the highest possible level of freedom and, at the same time, security.

In Germany, we like to conjure up an image of a skills shortage. Do you struggle to find the right people and profiles?

I think that here in Germany we do not have any shortage of software developers or technical experts, in other words, the people that we need – yet. The problem is more that the competition is

much bigger these days. Due to the digital transformation, it is no longer just software companies who are looking for IT specialists but also hospitals and textile manufacturers. For us, being located so close to Stuttgart, where many large corporations are located, is also difficult. In Tübingen too, there are a lot of great companies to compete with.

What is your strategy for dealing with the competitive situation?

We are clearly focused on "homegrown talent". In other words, we not only put a strong emphasis on training, but we also invest heavily in personal development. This year, many of our apprentices from the technical and commercial sectors have successfully completed their training and all of them will stay at the company. Those that start their career path at TDM Systems and, right from the start, feel that "TDM spirit" are happy to stay with us and for us to help them with their further training and development. We are looking forward to welcoming seven new young people this fall. We will train six of them to become IT specialists and one will do a commercial training.

Which recruiting methods do you use when you are looking for experienced applicants?

The classic printed advert has become almost obsolete for us. The people that we are seeking are technophiles and are not only familiar with digital media but have grown up with it. We use precisely these methods to get their attention; on suitable websites and job portals or via Xing and our social media chan-

nels. If we want to fill management positions, we work with personnel consultants to preselect the right people for us and to establish initial contact.

Apart from technical expertise, what makes a management candidate suitable for you?

People in management positions must be able to inspire others. This requires vision, assertiveness and decisiveness in equal measures. Ideally, a manager is the driving force behind employees and someone who shares successes with the entire team. Conversely, they stand up for their people if there are problems, and assume responsibility. Openness and a sense of humor are, of course, also important characteristics because, at TDM Systems, we love to laugh and take a more relaxed view.

What is particularly important in the application situation?

Attitude is decisive. And that is not just true for the candidate. Applications are not a one-way street and we view candidates as more than just form-filling applicants. It is a mutual presentation for which we, as a company, have to prepare just as much. Before an interview, I therefore really think about who from the team I can best include and how we appear at first glance as an employer. Candidates these days are generally better informed than they were even ten years ago. They have confidence in their position and their market value. In the interview, however, this should not come across as insincere or memorized. Authenticity is everything. Of course, technical skills are also important but, in the end, the decision is made based on the soft factors. The chemistry has to be just right.



Spices, tools and a lot of traffic: Greetings from Shanghai!



Robert Auer, responsible for Sales in Asia Pacific and Global Partner Management at TDM Systems, shares his week-long trade show diary from CCMT 2018 in China. The trade show for CNC machines in Shanghai, which was held between April 9th and 13th 2018, welcomed around 125,000 visitors this year.

Day 1:
Bang!!!



Ni hao from Shanghai! 9,000 kilometers from my usual workplace at Lake Constance, the first day of CCMT is drawing to a close. "Bang" was the response from my Chinese partner when I asked how he thought it went. "Great", he elaborated when he saw the look of confusion on my face. And it really was a successful start. Not only because of the number of leads. The general interest in TDM Systems and TDM Tool Lifecycle Management, particularly from local companies, is at an all-time high. This interest has been fueled by the strong economy and the China 2025 government initiative, China's response to Industrie 4.0. I'm looking forward to an inspiring week, interesting discussions and exciting new projects.



2018 marks the tenth CCMT. It began as an exclusive forum for production technology in the greater area of Shanghai and neighboring provinces of Jiangsu and Zhenjiang. Since then it has become just as important as its sister trade show, the China International Machine Tool Show (CMT) in Peking, which takes place in odd-numbered years. This is due primarily to the excellent infrastructure and economic power of the Shanghai region.



Day 2: Spice up your (tool) life

The second day of the show is already in full swing. But I must quickly mention the dinner I had with my Chinese colleagues. The pictures of the dishes in the pretty pink menu looked quite tasty - but I should have realized that the restaurant was called "Spice at the Corner" for a reason.



Because what followed was a mouth-numbing experience. It culminated in a dish that looked like lentils in seaweed. In fact it was tongue cooked in a couple of pounds of fresh peppercorns! They like it hot in Shanghai!



Yummy!!



But I digress. Back to the trade show, where TDM is spicing up Tool Life Management. At our booth, for example. There the menu ranges from simple tool management for the mom and pop shop (family business) through to the carefully prepared, integrated Industrie 4.0 solution for the multinational group. Our partners were also offering fine TDM food, for example in the CELOS presentation at the DMG Mori booth or from Kelch, the specialists in presetting. When it came to tool management, there was something for everyone.

Long queues shortly before the trade show opened its gates to visitors.



Day 3: Hump day

It's Wednesday, the third day of the trade show in Shanghai. "Hump day" as we call it when we're half way through the working week. A reason to celebrate. But today I had writer's block. At least I did until I was invited to the hump day celebration in the German Pavilion. It was there that I saw it: small, shiny and made from aluminum - a nostalgic memory of my youth, of a drinks can with a catch that was subsequently banned, which we would throw into the air and try and put on our fingers like a ring, suffering cuts if it didn't quite fit. A memory of Pepsi Challenge, Cherry Coke and Fanta Mango. A time when an **#Instamoment** was a "made by Maggi" student dinner and a "Zuckerberg" was the German term for the overproduction of sugar in Europe. But that was a long time ago!



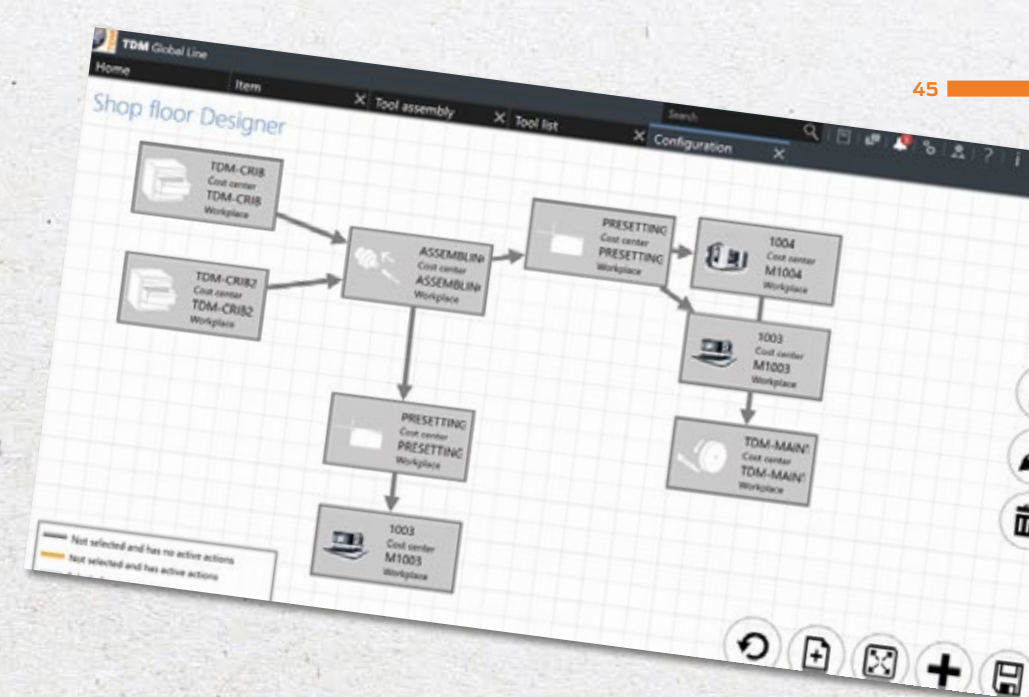
Day 4: Go with the (TDM work)flow

A final Ni Hao from Shanghai. I have some time to myself on our way to the trade show. That's because Shanghai is traffic jam capital. It has an average traffic index of 41%. During the morning rush hour it can even reach 76%. That means that you need to allow an average of 76% more time to get to your destination. In New York and Stuttgart, dear colleagues, it's never more than 50%. In Shanghai there are various ways of dealing with this problem. Between 7am and 10am and between 4pm and 7pm, for example, only cars with a Shanghai number plate are permitted on the main roads. There is also a sophisticated traffic control system that helps with journey planning and navigation and therefore keeps traffic moving on major traffic routes.

What's that got to do with TDM? Keeping machines running and reducing downtimes is exactly what TDM aims to do on the



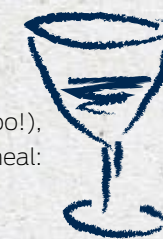
"production highway" of production facilities. And with the Workflow Designer, a new feature in the Shopfloor Manager module, designing your own production highway is now child's play. Simply create the design using "drag and drop", configure it, and you're done. Quick, easy, convenient. This keeps your machines running and the traffic index in the production facility at zero.



Day 5: To a successful trade show!

In China, drinking is a social ritual you can't avoid. The idea is not to get drunk (although it's difficult not too!), but rather to show that you are trustworthy. The three golden rules for surviving an after-show business meal:

1. Drink at least one glass of wine or beer with at least every person at the table.
2. Never refuse to clink glasses with someone. That is considered extremely rude.
3. "Ganbei" doesn't mean "To your health" but rather "down it in one". Cheers! 😊



To a successful trade show and a thoroughly enjoyable week in Shanghai!



All Walter product data – ready to go.

Missing features? Rechecking lengths and diameters? Adding parameters by hand? All a thing of the past! In the new Walter e-catalog for TDM, users in the design, planning, NC programming, purchasing and shopfloor departments will find comprehensive features, 2D drawings, 3D models and even photos.



Nowadays, a good product alone is no longer sufficient. Users also need to have access to the appropriate product data – the more comprehensive the better. With the new Walter e-catalog for TDM, tool specialist Walter and TDM Systems are taking user orientation to a new level. The new catalog is the result of a strong partnership. On the one side is TDM, with extensive experience in the field of CAD/CAM systems and an clear understanding of the features that are required. On the other is Walter, where around 400,000 items of missing product data from various sources have been painstakingly researched and shared with TDM.

Konstantinos Bountolas, Manager of Product Data Solutions at Walter, and Uwe Sauer, Manager of Strategic Projects at TDM Systems, summarize this partnership.

“With the new Walter e-catalog for TDM, we have set new standards in terms of quality and quantity. The product data is ready to go – users no longer need to add to it.”

What's different about the new catalog? The feature lists are one of the most important changes. The catalog currently contains almost 42,000 tool data records with a total of 505,000 features. Previously it only contained 100,000 features. For many items, only the essential parameters such as order number, name and model were listed. If features that the CAD/CAM system requires are missing, this means additional work for the user.

“Walter now has complete parameter lists for all known CAD/CAM systems. Cutting diameter, projection length, cutting length, direction of rotation, etc. – 20 parameters on average, everything a CAD/CAM system needs”,

EXPLAINS UWE SAUER, MANAGER OF STRATEGIC PROJECTS AT TDM SYSTEMS.

Completely new are the product photos, which make the work of users in the logistics department, for example, much easier. They provide a visual aid for searching in the tool crib and, due to their high recognition value, reassure users that they are making the right decision. Buyers also appreciate product photos for the same reason – a picture speaks a thousand words and does it much quicker.

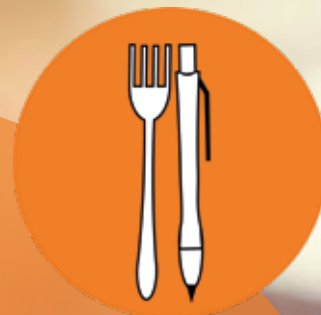
The new catalog features around 40,000 DXF drawings according to DIN/ISO. These can be extremely helpful when it comes to presetting. The previous selection of 3D models, which are indispensable for simulation and collision monitoring, has also been optimized and enhanced. With around 35,000 STP models, the Walter e-catalog for TDM covers all product ranges.

Digitalization is at the top of the agenda for Walter AG

As an innovative partner for digitalized process solutions, Walter is one of the industry's pioneers when it comes to Industrie 4.0. The idea is to use facts based on data to identify the potential for optimization more quickly and accurately and to control and improve processes more efficiently. Customer benefits such as these are at the forefront of all digital solutions from Walter. Walter is pursuing this goal continuously on every level, which is demonstrated by the new Walter e-catalog for TDM. It is available as a download for registered users at walter-tools.com and can be requested from Walter Sales or directly from TDM.



Walter AG, founded in 1919, is one of the world's leading metalworking companies. The machining specialist offers an extensive range of precision tools for milling, turning, drilling, boring and threading. Together with its customers, Walter develops tailor-made solutions for the complete machining of workpieces in the general mechanical engineering, aerospace, automotive and energy industries. As an innovative partner for highly efficient, digitalized process solutions, Walter is one of the industry's pioneers when it comes to Industrie 4.0. Walter AG employs more than 3,500 members of staff and, with numerous subsidiaries and sales partners, supports customers in more than 80 countries.



Facts, Snacks, getting on Track

First-hand
information

Interactive customer experience instead of dry, uninspiring presentations is the objective of the new “Facts, snacks, getting on track” event format, which TDM Systems tested for the first time this spring in the USA.

Informal exchange in a relaxed atmosphere can provide the inspiration for introducing change processes within a company.

The first event of this kind took place in spring 2018 in Waukesha, Wisconsin, at the Technology Center of Walter USA, LLC. Participants worked with the team of experts from TDM Systems, Inc. to find optimum solutions for their Tool Data Management. The modules and solutions from TDM have always been geared towards productivity increase, cost reduction and optimized planning – ambitious goals which the participants of “Facts, snacks, getting on track” were of course keen to know how to achieve.

Once the guests had gained an insight into the relevant facts and figures about TDM Systems and the extensive product portfolio, next came a practical demonstration of the software under the motto “Art to part”. Questions about the local and task-specific selection of tools, the crib inventory or alternative tools formed the basis for discussion. The desire for increased transparency in Tool Data Management was discussed in detail, as was the general idea behind digitalization and the optimization of business processes.

Gregg Bigleman, Director of Business, North America, drew a positive conclusion. “The event delivered the results we had hoped for; collaboration with customers was a success and our participants went away knowing much more than they did when they arrived.”



Information about the registration can be found under the following link: <https://www.tdmsystems.com/en/tdm-arena/events/tdm-events/>

TRAINING WEBINARS EVENTS

2018

NOV 5-7

TDM Base Module
Tübingen
Training

NOV 8-9

TDM Tool Crib Module
Tübingen
Training

NOV 12-14

TDM Form Generator
Tübingen
Training

NOV 15

TDM 2018
16:00 - 18:00 (English)
Webinars

NOV 15-16

TDM System User
Tübingen
Training

NOV 21

TDM User Day
DMG MORI, Pfronten
Events

NOV 22

TDM Info Day
DMG MORI, Pfronten
Events

2019

training

FEB 18-20

TDM Base Module
Tübingen

FEB 21-22

TDM Tool Crib Module
Tübingen

FEB 25-27

TDM Form Generator
Tübingen

FEB 28-MAR 01

TDM System User
Tübingen

APR 08-10

3D Models and Tool
Parameters for CAM
Systems
Tübingen

MAY 13-15

TDM Base Module
Tübingen

MAY 16-17

TDM Tool Crib Module
Tübingen

MAY 20-22

TDM Form Generator
Tübingen

MAY 23-24

TDM System User
Tübingen

SEPT 16-18

TDM Base Module
Tübingen

SEPT 19-20

TDM Tool Crib Module
Tübingen

SEPT 23-25

TDM Form Generator
Tübingen

SEPT 26-27

TDM System User
Tübingen

OCT 7-9

3D Models and Tool
Parameters for CAM
Systems
Tübingen

NOV 4-6

TDM Base Module
Tübingen

NOV 7-8

TDM Tool Crib Module
Tübingen

NOV 11-13

TDM Form Generator
Tübingen

NOV 14-15

TDM System User
Tübingen

webinars

FEB 15

TDM Shopfloor Manager
10:00 - 12:00 (German)

MAR 21

TDM Shopfloor Manager
16:00 - 18:00 (English)

MAY 17

Data creation from cata-
logs and T3D Generator
10:00 - 12:00 (German)

JUN 13

Data creation from cata-
logs and T3D generator
16:00 - 18:00 (English)

OCT 11

Data import from Tools-
united and Machining-
cloud
10:00 - 12:00 (German)

OCT 24

Data import from Tools-
united and Machining-
cloud
16:00 - 18:00 (English)

NOV 8

TDM 2019
10:00 - 12:00 Uhr (German)

NOV 21

TDM 2019
16:00 - 18:00 Uhr (English)

events

JAN 24-30

IMTEX
Bangalore, India

MAR 5-8

Industrie Lyon
Lyon, France

MAR 21

mav Innovationsforum
Böblingen, Germany

APR 15-20

CIMT Peking
Peking, China

SEPT 16-21

EMO Hannover
Hannover, Germany



TRADE SHOWS



PICTURE WALL



"Production and software know-how distinguishes TDM Systems - and myself, too. Together with the team I can move a lot and bring in my long-time experience with enterprise software along the entire value chain."

DIETMAR BOHN, FUTURE MANAGING DIRECTOR AT TDM SYSTEMS

TDMessage

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