



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

Page 2 →

Content

Editorial: Every Good Production Process Starts with a Plan	Page 1
TDM-Anwender: From Pilot Project to Standard System	Page 1 + 2
Today's Interview	
A Pit Stop at TDM Systems	Page 3
The new release TDM V4.2	Page 4
TDM Team: Kerstin Gehrig	Page 5
TDM Team: Uwe Sauer	Page 5
TDM Systems Spread Through South America	Page 6
Patrick Blinki new Area Manager	Page 6
A Digital Economizer Valve at Canada's Velan Company	Page 7
Personal Invitation METAV 2006	Page 8
Imprint, Coming Events, TDM Releases	Page 8



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.