FASTEC
Software for Production

We digitalize factories

User Report

FASTEC 4 PRO in the Mibelle Group

in Frenkendorf (CH)

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GROUP

Content

Small steps, big goal – FASTEC 4 PRO in the Mibelle Group in Frenkendorf

The Mibelle Group is a fully-owned subsidiary of the Migros Group and part of Migros Industrie. Migros Industrie has around 13,100 employees and achieves annual revenue of around 6 billion Swiss francs. The Mibelle Group is active in the areas of Personal Care & Beauty, Home Care, Nutrition and Biochemistry. It has a daily production output of 675 tons, which corresponds to approx. 2 million units produced each day.

The Mibelle Group employs around 1500 people at nine locations worldwide. In Switzerland, the company operates in Buchs and Frenkendorf. This case study presents the software solution from FASTEC at its Frenkendorf site. Here, mainly products for the areas of Home Care and Nutrition are produced. The Competence Center for Nutrition is also in Frenkendorf. The Mibelle Group also has facilities in England, France, South Korea and the United States.

The Mibelle Group aims to optimally meet the needs of all stakeholders and therefore knows the diverse requirements very well. In order to supply customers with quality products, efficient and error-free production processes are essential. The key to this is continuous process improvement based on transparent production data.

Challenges

In the production of the Mibelle Group in Frenkendorf, the operating data were available through manual recording or previously used recording systems. However, due to faulty or irregular recording, these were only of limited informative value. The sources of error could not be identified and thus no optimizations in the production process were possible. Attempted changes or improvements were based on gut feeling and could not be attributed to any solid optimization concept.

This needed to change; the goal of the Mibelle Group in Frenkendorf was to make waste visible through complete transparency. Evaluations were to be possible in real time and should also be processed in comprehensible graphs with level-appropriate evaluation tools.

"We wanted to make all wastes visible with the whole truth and be able to quantify them in order to make targeted optimizations based on them."

Marcel Ryser
Head of Maintenance, Mibelle Group

The central requirement was reliable transparency at all levels, accessible and visible to everyone. In the different production areas for Home Care and Nutrition, data collection has been handled differently in recent years.

- **Home Care**

An outdated system for recording OEE was in use in the Home Care area. However, support was discontinued and no further development was possible with the system, as compatibility was no longer given following the changeover to Windows 10 as the operating system. In addition, there was no categorized recording in the system, which resulted in only very limited evaluation possibilities.

- **Nutrition**

In the Nutrition area, an Excel-based system was used for data collection between 2003 and 2012. However, due to a lack of justification of effort versus benefit, this approach was discontinued.

Goal: Reliable Transparency at All Levels

The Search For a Uniform Solution

In 2014, a pilot project for OEE recording was started with a supplier on two lines. However, the solution did not convince those responsible at the Mibelle Group. The software was not based on a standard, but was individually programmed, which was time-consuming, costly and prone to errors.

Nor did the functionality meet all of the desired requirements. Therefore, the persons responsible launched a new attempt.

First of all, all internal requirements from the individual departments were obtained in order to start a new search for a suitable software provider. A uniform system for automatic data collection was to be introduced in both business areas (Home Care and Nutrition). In addition to comprehensive transparency, the needs of the users were a central criterion, with the focus on acceptance, functionality and benefits of the system. After carrying out a utility analysis among several suppliers, the Mibelle Group finally opted for FASTEC.

The FASTEC 4 PRO software solution and FASTEC as a customer partner were particularly convincing in the eyes of those responsible at Mibelle:

- The core competence in the desired application of the system
- A standard software solution that is highly adaptable and flexible
- Willingness to take special requests into account
- An intuitive user interface
- Very flexible display and evaluation options

User Requirements as a Key Criterion

Solution

Our Software:

Flexible, Modular, Individually Adaptable

The modular software solution FASTEC 4 PRO supports the optimization of your entire production.

It improves production planning, creates more transparency and regulated processes, provides KPIs, analyses and reports – regardless of industry and flexibly adaptable even to special production processes.

Based on the basic module, the six main modules can be combined according to individual requirements and supplemented by various additional functions. The individual modules access a joint and standardized database.

As a result, consistent data is available at all times – there are no additional interfaces between the modules and no redundant double data storage.

FASTEC 4 PRO at the Mibelle Group in Frenkendorf

Modules:
- Basic module
- Machine Data Acquisition (MDA)
- Production Data Acquisition (PDA)

Additional functions:
- Personnel time tracking
- Monitoring
- SAP interface
- Office clients
- Production clients
- Large screens
- Mobile clients

Custom programming:
- In the evaluation options
- In the area of large screens and terminals
- Interface to SAP, type of feedback
- Individual planning times from SAP were integrated

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Modular Software, Individual Adaptations

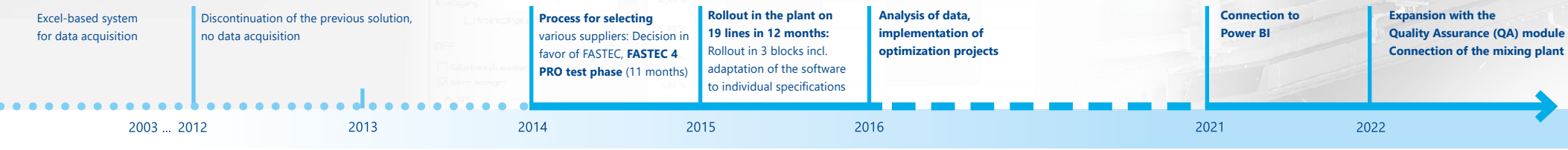
The Project Procedure in Detail

Pilot project on one line

FASTEC started a pilot project on one line at its Frenkendorf site. There, hardware components such as PLC communication modules, network and server were implemented and then the software with application and database was installed. The machine data are read out from the controls of the filling line and the fault messages from each item of equipment on the line are also recorded automatically from now on, which means they no longer have to be entered manually. The reasons for standstill, i.e., the additional information on the fault message, are recorded in a three-level classification. In addition, an interface to SAP was implemented in the pilot project, which integrates order data from the ERP system into FASTEC 4 PRO and reports back on machine and personnel hours per order from FASTEC 4 PRO into the ERP system.

Rollout on 19 lines

After eleven months of tests and adjustments on the pilot line, the Mibelle Group in Frenkendorf decided to roll out FASTEC 4 PRO throughout the entire plant. The software solution was extended to 19 production lines. The rollout took place in three blocks in the different sections (liquid, powder, food) of production. I/O modules were installed to record the data, and the classification of the reasons for standstill was adjusted again and again until the optimum was reached. After the pilot line, the project lasted another four months for five lines in the liquid sector and a total of one year for all 19 lines.



Rollout in Three Blocks – Liquid, Powder, Food

Results at The Frenkendorf Site

- **Real-time analyses:**

Large screens in the workshop area and in the planning office are a helpful tool enabling employees to see the current status of all lines at a glance and react quickly in case of malfunctions. In meetings, these views serve as a basis for discussion and for deriving needs for action.

- **Predictive action:**

Completed orders are displayed immediately and, in addition, forecasts are made as to when an order will be completed. Transparency permits predictive action. The overviews on the screens can be adapted independently and designed flexibly.

Specific views support the departments:

1 | **Logistics** thus keeps track of when production will be completed in order to coordinate forwarding and trucks.
2 | **Planning** can continuously adapt times in order to adjust the receipt of goods and the provision of resources.
3 | **Maintenance** can be informed in the event of faults and automatically provide support.

"One key topic for us was to integrate system operators as well as future users and evaluators of the solution into the project at an early stage. Their requirements should be included and considered in every case.

Marcel Ryser
Head of Maintenance, Mibelle Group

- **KPIs and reasons for malfunctions at a glance:**

Faults and malfunctions as well as the associated costs due to downtimes or cleaning times are clearly assigned and can be evaluated. These can therefore be used as a valid basis for arguments for optimization projects.

The OEE is mainly considered as a key parameter. Production management regularly checks the correctness of the data as well as the development of the OEE. For the line managers, the key parameter was broken down to show the target/actual deviation of production output, set-up times, number of employees, and number of parts produced. This way, the team leaders have an overview of all the key parameters that can effectively have an influence on cost deviations from the order. This helps them to justify possible deviations from the target figures.

Condition evaluation is also very popular, which displays the three most frequent reasons for malfunction. Cost drivers can thus be identified quickly and easily.

Real-Time KPIs at a Glance – in All Departments

Prospects

- **Connection to Power BI:**

Power BI is already connected in the pre-equipped assembly line and is being used more and more intensively for the analysis and visualization of data. Clear evaluations of the last 24 hours should also be available on the shop floor, where they can visualize not only productivity, but also product safety and quality.

"What I find very good is that you can connect the solution from FASTEC so easily to evaluation and visualization tools such as Power BI. This is very helpful in order to evaluate and present the data visually."

Adrian Waldmeier

Production Performance Engineer, Mibelle Group

- **Quality Assurance module:**

In the future, the FASTEC 4 PRO software solution is to be introduced in the mixing department as well as in the packaging department. A project team is currently being set up for this purpose. The Quality Assurance module is also to be integrated for both Mibelle Group/Mifa AG sites, which are now operating under the same name. This is to carry out in-process controls and make existing, manual processes digital, more efficient and also more transparent.

"I find the Monitoring Designer very good, because I can compile the views independently as I need them."

Further Steps Planned

Cooperation With FASTEC

"The employees who were critical of the system at the beginning now see the added value and come up to me of their own accord to tell me that they appreciate the solution with its multiple functionalities and are happy to work with it."

"Even before the implementation of FASTEC 4 PRO, we were able to see the solution at another customer within a webinar, which convinced us. We are also in contact with other FASTEC users and can gain insights into the shop floor, which is already further digitalized with FASTEC 4 PRO. This is very exciting and still shows a lot of potential for the future."

"The final result, which we have achieved with the rollout to all 19 lines in Frenkendorf, brings us the desired transparency. All our requirements were met and there was virtually nothing that was not possible with FASTEC."

Adrian Waldmeier

Production Performance Engineer, Mibelle Group

"We always have a fixed contact person to whom we can turn. Communication works smoothly and cooperation with FASTEC is very collaborative, which we like very much."

Customer-Oriented, Reliable, Partnership-Based

Why Not Get to Know Us Personally?

Production companies must produce on time, in a traceable, flexible and customer-specific manner, while ensuring consistently high quality. Achieving these goals requires transparency through real-time information, good planning and quick and adequate reactions to deviations. Our Manufacturing Execution System (MES) FASTEC 4 PRO is the right tool for this purpose. With great success since 1995.

With FASTEC 4 PRO, you gain the necessary level of transparency in all areas of production in real time, enabling you to discover previously unused potential for increasing productivity and optimizing processes.
Thanks to targeted planning, you can also respond to short-term requirements from sales and efficiently design production processes – traceable and documented.

We would also like to give you a good advice personally!

Our sales department will be happy to provide you with further user reports and information material! Or else, make an appointment with our sales department for a presentation at your location, in our company or via web. Of course, you can also experience FASTEC 4 PRO live and on site with our customers.
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Additionally, we offer videos of our software and customer solutions in our YouTube channel:
www.youtube.com/FASTECGmbH

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Gold Microsoft Partner
Microsoft

SAP Silver Partner

FASTEC 4 PRO

- Get transparent data in real time
- Reduce production costs
- Detect and eliminate weak points
- Develop high productivity potentials
- Benefit from the continuous flow of information
- Use available resources efficiently

As a data hub, FASTEC 4 PRO is essential on the way to the Smart Factory.