

## SUCCESS STORY



## Software upgrade as a logistical quantum leap

Commercial vehicle manufacturer MAN Truck & Bus has introduced a new version of the INFORM control software SyncroTESS at its plant in Salzgitter. After more than ten years of using the software solution, completely new application possibilities are now emerging.

## MAN Truck & Bus AG

The Volkswagen subsidiary MAN Truck & Bus AG based in Munich is one of the leading manufacturers of commercial vehicles in Europe. The product range extends from trucks with a gross vehicle weight of 7.5 to 44 t for every range of application and special vehicles up to 250 t gross combination weight, through buses and coaches, to diesel and gas engines for external customer applications.

MAN Truck & Bus's Salzgitter facility, with a plant area of over 1.1 million m<sup>2</sup> and more than 2500 employees, is being converted into a component plant and international parts supplier.

[www.truck.man.eu](http://www.truck.man.eu)

The MAN production plant in Salzgitter, with a factory area of more than 1.1 million square meters, is currently undergoing a period of significant change: The previous manufacturing and assembly site will in future become a central component plant for the entire production network and international parts suppliers within the Volkswagen Group. This means that it will no longer be complete trucks that roll off the production line, but instead supplier parts such as non-driven axles, special tubes or crankshafts - not only for MAN vehicles, but also for trucks of the VW subsidiary Scania, for example. In addition, the worldwide supply of CKD (Completely Knocked Down) kits will continue to be handled in Salzgitter as before.

"Such a fundamental restructuring naturally implies serious changes for logistics", explains Hans-Helmut Block, Logistics Manager at MAN in Salzgitter. "Based on the brownfield planning here at the location and the associated permanent area castling of e.g. production islands, which themselves are constantly changing, an immense demand is placed on the logistics and, above all, maximum flexibility of the processes is required."

## Intelligent IT for efficient material transport

IT plays a central role in such a period of significant change, as it forms an important basis for such a new concept: "In this context, existing solutions are put to the test and reassessed," says Block. "This also applies in the area of forklift control system on the factory premises, because the logistics process had to be made much more flexible." In comparison to the previous assembly plant, which used the route train method in fixed cycles, the new component plant typically produces in batches, so material supply must be organised in a way that is quicker and more flexible than before. With this context in mind, SyncroTESS was completely redeveloped.

"After around ten years, we implemented a performance update for our forklift control system at the beginning of the year - comparable to switching from a dial to a smartphone", says MAN project manager Benjamin Schmidt, describing the IT-technical quantum leap. "This enabled us to significantly reduce both empty runs by around 20 percent and downtimes in our material supply system, thus significantly increasing the effectiveness of the industrial trucks used." A route optimisation on the plant premises was also achieved by implementing a new transportation network and cleaning up the so-called station overview. In addition, SyncroTESS optimises all those transport orders which, due to their complexity, are not suitable for other standardised transport concepts such as scheduled route traffic.

## Transparency of stacker traffic and supply chain

"With SyncroTESS, companies are able to implement a fully automated and transparent supply chain", explains INFORM project manager Michael Heym. "In particular, extensive logistics processes can be optimised in real time. This is an economic benefit. There is also another benefit which is more security: "In the context of Industry 4.0, logistics processes are becoming increasingly interlinked", says Heym. "This also makes them more likely to malfunction." The use of SyncroTESS with its broad-based algorithms can counteract this and thus make a company more resistant to interferences.



"The integration of SyncroTESS into the IT world of MAN is achieved by using a bidirectional SAP interface," says Heym. "From our perspective, the project went smoothly because we were working with extremely goal-oriented and pragmatic MAN employees at the plant." The mobile data radio devices for the drivers are connected via Wi-Fi, and the logistically relevant information is provided directly from the server. This means that all rides of the industrial trucks on the Salzgitter factory premises are transparently registered in one system. However, the transparency has no impact on data protection, as each driver works with a technical user and no personal data is collected, only the performance of the vehicles. This means that the forklift driver can operate much more effectively, the calculation of driving time is much more accurate, and the system suggests bundling effects across all transport orders.

This also applies to the transparency of the capacity utilisation of the vehicles with the aid of a special SyncroTESS evaluation tool - an important piece of information, particularly in the restructuring phase, in terms of monitoring developments over time. After all, there are currently around 1,000 transport orders per day in the system, which is around 25 percent more than in the old plant structure.

» **Thanks to the new software version, we have been able to reduce both empty runs by around 20 percent and downtimes in our material supply system, thus significantly increasing the effectiveness of the industrial trucks we use.**

#### **MAN are very pleased with service quality from INFORM**

"Thanks to the good support provided by INFORM, the actual implementation of the software upgrade on the five devices currently in use ran without any problems", says MAN project manager Benjamin Schmidt. "The user interface of SyncroTESS is kept very simple and clear, the training of the employees is intuitive and rarely takes longer than 30 minutes".

The cooperation with the project management as well as the system consulting from INFORM also worked perfectly - the respective contact persons were always available and provided valuable support, especially during the phase leading up to implementation. The hardware on the forklifts was entirely converted to Windows-based Soredi touchbooks with high resolution. The display is now in large type so that all employees can work with the system easily, despite the demographic change.

The number of devices will soon be increased to a total of nine in the next expansion phase. The system's portfolio ranges from the control of internal plant and road transports to the efficient handling of containers and transport optimization in hospitals. The focus here is not only on organization, but above all on the synchronization of all logistics processes.



**Benjamin Schmidt,**  
MAN Project Manager

## More intensive use of SyncroTESS planned

MAN is extremely satisfied with the results so far. Concrete follow-up projects are already being considered. "For example, a system extension can also be adapted to route traffic, for example in combination with a simple interface such as a multi-button or for a milk run process", says Schmidt. "We are planning an initial pilot project for the use of route vehicles this summer." The next step will be to evaluate whether and to what extent SyncroTESS can be used across the board for the control of industrial trucks and route vehicles in a component plant - for example, as a combination of call-off controlled and continuous route control.

"Call-off control in particular represents a great challenge for us on account of the large number of individual orders to be coordinated", says Schmidt. "After all, a systemic solution is definitely an advantage in order to optimize picking orders sustainably and generating transport orders automatically. An autonomous transport system is already integrated with SyncroTESS. SyncroTESS is also used in the various divisions at the Nuremberg and Munich locations.

## Results

- Flexibilization of the material supply
- Reduction of 20% of empty runs and downtimes of the forklifts
- Increasing the effectiveness of the industrial trucks used
- Connection of autonomously moving transport vehicles

**If you would like to know more, we look forward to hearing from you:**

**INFORM GmbH** / Manufacturing Logistics Division

Pascalstr. 35, 52076 Aachen

syncrotess@inform-software.com / syncrotess.com