

CASE STUDY

Touch computer instead of paper:

Paint manufacturer digitizes Ex-areas cost-effectively with the BARTEC TC7X-NI series



The user:

- Medium-sized paint manufacturer for the furniture industry
- Based in Germany, approx. 100 employees

The challenge:

- More process reliability, quality and transparency through digital support and documentation of manual processes in the Ex area
- Integrated solution: Only one device per employee
- Best possible user acceptance

The solution:

- Hardware: BARTEC TC7X-NI touch computer with integrated scanner and LTE/WiFi connection.
- Software: Android App for user guidance

The system integrator

- SCHULZ Systemtechnik GmbH
- One of the leading developers of industry-specific automation solutions
- Internationally operating group of companies with over 1,000 employees worldwide

The advantages

- Consistent data management from the inventory management system to the production level
- Transparency of overheads and material costs
- Error prevention through digitalised processes
- High user acceptance thanks to Android
- Low development costs thanks to standard OS
- High ergonomics: pocket-sized mobile device
- One-hand operation
- More efficiency and safety in the field

Anyone who wants to make manual processes in Ex-areas transparent, traceable and more efficient does not need a sophisticated technology. A medium-sized paint manufacturer has found an impressively simple, effective and economical solution in BARTEC. The easy-to-handle Android touch computer BARTEC TC7X-NI has the highest level of acceptance in the field and enables continuous data management – from the production level to the ERP system.

With almost 100 employees and decades of expertise, the traditional company from Germany produces high-quality and innovative coatings for the furniture industry. In order to accelerate, seamlessly monitor and make the batch processes of its diverse recipes more secure, the company was looking for a cost-efficient mobile solution with the help of the system integrator SCHULZ Systemtechnik. The two most important criteria: The simplest possible operation and introduction as well as the continuity between Ex and Non-Ex-areas. The latter point was not only significant from the employees' point of view of the employees, but also from an IT perspective.

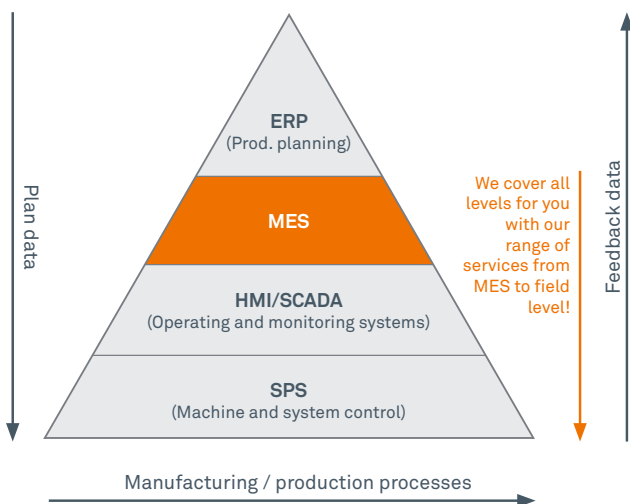
Stabilise processes and quality

Thanks to the new enterprise mobility solution, typical manual processes such as filling, weighing and mixing of aggregates should be consistently digitally recorded and documented. In addition, employees should be digitally guided in batch processes in order to avoid previous sources of error and to ensure quality. With a view to the investment costs, SCHULZ Systemtechnik recommended a solution consisting of easy-to-use, industrial-grade touch computers with Android operating system. The selected mobile devices of the BARTEC TC7X-NI series integrate a barcode scanner and support the employees' work via an app which the system integrator has developed with the standard Android development tools.



Familiar operation increases acceptance

The acceptance by the employees was high right from the start and the training effort was low. This fact is based on the one hand on the familiarity with touch devices from the private environment, and on the other hand on the practicality of the globally used apps of BARTEC's partner ZEBRA. Another advantage: New or inexperienced employees find their way around much faster thanks to the simple handling and digital guidance. The form factor of the touch computers is also well accepted by the users. The device can be easily operated with one hand and quickly put into the pocket for two-handed work. "This impressively simple combination of scanner and tablet is ideal for a small medium-sized business like us," comments the responsible project manager. "In this way we were able to avoid two separate devices."



More safety and transparency

Due to the fact that employees are able to easily track every step of the process, not only occupational safety improved, but also the reliability of experience within the company. The aggregates are clearly identified by scanning and the respective raw material quantities are precisely specified by the recipe control system. Once a manual process has been completed, it is acknowledged on the touch computer. After the last production step, the logistics department automatically receives a message about the completed batch and initiates the shipping. The localisation of raw materials in the warehouse or in the production area is also carried out with the help of the touch computers, which are connected to the process control and the ERP system via WLAN.



BARTECs TC7X-NI Touch Computer Serie

The BARTEC TC7X-NI is a robust and highly flexible touch computer for harsh environments. The device impresses with ZEBRA's leading hardware quality and convinces thousands of users around the globe with an easy-to-use combination of 4.7" tablet, scanner and built-in camera.

Thanks to a large number of international certifications, the solution can be used worldwide. Among others, these include ATEX and IECEx Zone 2/22 as well as NEC Class I, II, III Div. 2. Upon request, BARTEC offers additional country approvals. Android apps and numerous integrated functions ensure maximum user acceptance and make the handy pocket-sized mobile device the perfect companion for maintenance technicians, operators, transport, warehouse management, engineers and project managers.

Significant time and cost savings

With the help of touch computers certified for explosion protection in industrial environments, the paint manufacturer now benefits from the advantages of continuous data management, which extends from the ERP to the production level. Product quality is stable at a high level and the work of mobile employees has become easier, safer and more efficient. Compared to the previous paper-based practice with subsequent transfer to the PC, it results in time and cost savings of 75 percent. This means that the investment will pay for themselves within two years.

Flexible solution for successful projects

After the success of the initial project with ten devices, the customer immediately ordered additional BARTEC touch computers for the expansion.

The system integrator recognises this as a promising model for medium-sized companies: "The combination of BARTEC Touch Computers and easy-to-create Android apps makes digitization in the Ex area particularly simple and cost-effective," explains Burkhardt Arends, Sales Engineer at SCHULZ Systemtechnik. "Our customers are very satisfied with the results."



About SCHULZ Systemtechnik

Founded in 1954 in Visbek, Lower Saxony, SCHULZ Systemtechnik GmbH is one of the leading developers of automation solutions for a wide range of industries. The internationally operating group of companies employs over 1,000 employees worldwide.

The company combines all disciplines of automation technology - from mechanics to electrical engineering to computer science - and thus offers the entire value chain from a single source. All solution concepts are specially tailored to the respective customer requirements - this applies to medium-sized companies as well as to large-scale industry.

Extensive synergy effects within the corporate group as well as the comprehensive specialist knowledge and industry expertise create significant advantages.

For the technology leader, the high-tech strategy Industry 4.0 is both a goal and a vision when it comes to sustainable process changes. This can already be seen today in numerous products.