

# New impetus for production

Universal Data Converter optimizes production processes at Dürr

Reference Project



**"Thanks to the UDC, we can take an agile approach to production, enabling us to respond flexibly to customer requirements. Production staff no longer have to waste time searching for the right parts and the quality of production is improving – with less need for temporary storage in the assembly hall."**

Micha Veigel, Senior Manager Production Planning, Dürr Systems AG

Dürr Group, based in Bietigheim-Bissingen, Germany, is a leading global mechanical engineering and plant construction company. With around 16,200 employees, the company has 112 sites in 33 countries and achieved revenue of almost 4 billion euros in 2019. The Dürr Group has clients in sectors such as the car industry, mechanical engineering, and the chemicals, pharmaceuticals, and woodworking industries. Dürr is a brand with tradition and has been a byword for technological progress and quality since 1896. The company has specialist expertise in automation and digitalization. This has been recognized by independent bodies too: The company was the winner in the large company category of the Deutscher Innovationspreis award in 2020 for its innovative EcoPaintJet robotic painting system. Dürr's product range includes standardized and highly customized painting solutions – from painting technology and robots to complete turnkey production lines. Efficient project management plays a crucial role in major projects, which are often executed on a tight schedule of just a few weeks. This applies particularly to production units that assemble equipment. Assembly work is not only carried out at Dürr's own plants: Due to the sensitivity of some components, the final

assembly steps are performed on the customer's premises. The true art of production is to have the right parts and components in the right location at the right time. To optimize its production processes, Dürr brought in T-Systems' expertise, introducing the Universal Data Converter (UDC) to automatically create and update production bills of materials.

## At a glance

- Faster configure-to-order processes
- Goal: Flexible, high-quality, efficient production
- Improved IT support for the zone production plan
- Universal Data Converter automates the creation of and updates to production bills of materials and production orders
- Optimized parts dispatching
- Cost reduction
- Agile production

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# The reference in detail

## The challenge

Time is money – and Dürr's customers know it. They have an interest in completing the configure-to-order process with engineering-to-order parts as quickly as possible. The goal is to have the finished equipment ready fast. To achieve this, Dürr uses standard products from its range. But Dürr allows its customers to adapt the individual products and to integrate them individually. To do so, it uses suitable connection solutions between the individual components, which are adapted to each customer's needs because no two painting lines are the same. To meet the customer's completion deadlines – which are usually very tight – the production division starts assembly work even while the sales team is still fine-tuning the details of the equipment with the customer. This poses the challenge of incorporating the resulting changes into the production process, which has already started. In the past, this was done manually, making production considerably more complex and costly. In past production processes, all parts to be included in production were delivered from the warehouse to the assembly hall right at the start of the work and had to be distributed to the various assembly stations from there. This led to further disadvantages for the production process: Storage space is tight in production areas and not as well organized as in the warehouse, so the material took up an unnecessarily large amount of space during the weeks-long assembly process; when the material was finally needed, time was wasted searching for and sorting it manually to make it available to the assembly stations. Flexible production also poses another challenge: Last-minute changes make parts obsolete, while additional new parts are needed.

## The solution

Dürr redesigned the IT map of its production processes to resolve the challenges. Production is now mapped in the form of networks in SAP, with the assembly sites mapped as network activities to which the relevant components are assigned. This ensures the relevant parts (and only the relevant parts!) are delivered to the assembly site in question – when they are actually needed. To automate the mapping and assignment, Dürr decided to use the Universal Data Converter (UDC) from T-Systems, an SAP partner solution. The SAP-certified UDC can be integrated into SAP systems that control internal logistics and production. Based on set rules, it automatically creates bills of materials and component assignments for the relevant assembly sites (network activities) – this creates “parts packages”, which are dispatched to the individual assembly zones. Sensitive parts such as bell disks for atomizers, which have to be installed on the customer's premises, are dispatched to the shipping zone. The UDC also makes it possible to respond quickly and easily (automatically) to changes in the construction plans. It creates the required “developing” bill of materials, ensuring that new parts are ready for production at the right time. “The manual workload for these sorts of changes was huge and delayed production processes time and again. The UDC relieves a lot of pressure and prevents mistakes”, explains Micha Veigel, Senior Manager Production Planning at Dürr Systems AG.

## Customer benefits

Thanks to the UDC, Dürr can take an agile approach to production, enabling it to respond flexibly to customer requirements. Greater efficiency has led to faster production times. The bill of materials provision process is much shorter. In addition, parts that have to be assembled on the customer's premises are sent directly to the shipping zone, freeing up space in the production area. The improvements to processes mean HR capacity can be used optimally and costs can be saved. Above all, production staff no longer have to waste time searching for the right parts. The quality of production is improving – with less space being taken up in the assembly hall. Together with T-Systems, Dürr is continuously extending the number of areas where the UDC is used. Currently, the partners are working on rolling out the UDC to other branches in Dürr's global production network. This will allow production orders to be distributed to multiple sites in the future.

### Other advantages:

- Trust-based partnership
- Flexibility to adapt the solution to the more efficiently designed production process
- Solution can be adapted for other units of the company
- 100% integration into the SAP standard (certified)

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