

**DOLL****BCT CHECKIT***Bild: DOLL Fahrzeugbau GmbH***BOM QUALITY****UNDER CONTROL**

Complete and high-quality design data helps DOLL Fahrzeugbau GmbH to move customer orders through production quickly and as error-free as possible. The manufacturer of transporters for timber and heavy-duty goods, for the airfield and for the government business therefore has the BOMs automatically checked with the additional module BCT CheckIt from BCT Technology.

With 350 employees, the company, founded in 1878, develops, produces and sells heavy transport vehicles, which are also used in the military sector, timber transport vehicles and scissor lift vehicles. It also offers

its customers a comprehensive service. DOLL maintains another manufacturing site in Mildenau, Saxony, and since 2016 has had a subsidiary in the USA, which has been very successful in the scissor lift business.

DOLL develops all technologies and vehicles for its product lines in Oppenau. Depending on the product line, the vehicles are standardized to varying degrees. In the civil heavy transport sector, for example, DOLL supplies customized solutions in the medium-heavy range, that are built in smaller quantities. The company has begun a redesign of certain product

lines. „We first modularized the low loaders to a very large extent and standardized the interfaces so that we can use many standard assemblies“ explains PLM and CAD administrator Thomas Hoferer.

The design engineers in Oppenau work with the Siemens NX CAD system and manage their 3D models and 2D drawings as well as the documentation for the components (data sheets, drawings, STEP files, etc.) with Teamcenter.





At DOLL, it is also the leading system for the creation of new master data and BOMs, which are transferred to the ERP system upon release. However, the users from the mechatronics department create their electrical and hydraulic BOMs in Teamcenter without direct reference to the individual components. In addition to the (mechatronic) design BOM, Teamcenter also manages the relationships to the production BOMs, which are synchronized with the manufacturing process planner.

Validation Of Teamcenter Data

Since upgrading their NX and Teamcenter installation to version 12, DOLL has been using the standard T4EA gateway from Siemens with a connection to AB plus for data synchronization between the PLM and ERP systems. The volumes of data that are automatically exchanged during release via the new interface are

larger than before. To prevent incorrect or incomplete data from being transferred to the ERP system, DOLL checks released PLM data for quality and completeness with the Teamcenter add-on BCT CheckIt before transferring it to the ERP system.

BCT CheckIt not only checks whether all relevant data fields are completed, but also uses specific rules to check whether the data is filled in correctly, e.g. whether the length is greater than the width and whether the correct materials are stored. In the case of a raw material, the software ensures that only one dimension can be assigned. It checks whether the designer has assigned correctly all drawing numbers, whether he has correctly named the supplier drawing PDF and that he has not accidentally assigned the same item number twice for different parts. Understandable error messages make it easier for the user to fix inconsistencies.

To keep the workflow as lean as

possible, DOLL has not integrated the check routines directly into the Teamcenter release workflow. However, it cannot be started without a check. Users can start something like a test run before they release to see how far they are with their work and where data is still missing.

The validation of Teamcenter data has not only improved data quality, but also reduced the frequency of errors, as Hoferer says. It hardly ever happens anymore that parts are ordered or dispositioned incorrectly because possible errors are detected in advance, he says. This also saves designers time because errors that are discovered later are much more difficult to fix. „If they had to check the data without BCT CheckIt, they would certainly need many times more time“ says Hoferer.