For around 40 years viastore systems with its head office in Stuttgart has been one of the leading international providers of turnkey high-bay warehouses and distribution systems, warehouse management software, shuttle systems and storage/retrieval systems. The viastore services range from comprehensive advice to planning up to the realisation of new systems as a general contractor. viastore also updates existing warehouses and adapts them to current technologies and modified processes.

Today the viastore Group has subsidiaries in Brazil, China, the USA, France, Spain, Russia and the Czech Republic. Some of its customers include IKEA, WMF, Trumpf, Bosch, Metabo, Krüger and Weltbild. In 2012 the company with 380 employees achieved an annual turnover of 99 million Euro.

Initial situation
In the past viastore created system-specific spare parts and service documentation using data from SAP, published as a PDF and distributed in printed form. All of that demanded a great deal of manual effort. viastore publishes a total of 15 to 20 catalogues in the year, each with between 1,000 and 1,500 parts.

Requirement
Each system realised by viastore is a customer-specific solution requiring individual spare parts documentation. In order to also be up to date in the service documentation, viastore planned to implement an electronic spare parts catalogue system. Particular importance was attached to an Internet-based spare parts catalogue solution for customers to access specific spare parts information for their systems. With the new catalogue application on the one hand the quality and clarity of the spare parts documentation should be optimised and its management improved. On the other hand, the order processing for spare parts should be simplified and the number of incorrect orders lowered. Another aim was to reduce the effort for catalogue production and increase the efficiency of documentation compilation. A special requirement was to display not only parts lists, drawings, 3D models and descriptive documents in the new information system, but also very comprehensive circuit diagrams comprising several hundred pages.

Industry
Automation technology, intralogistics systems

Application
Order-related spare parts catalogues:
- CD, Internet
- 2D, 3D
- Integrated circuit diagrams

Technologies
- Spare parts catalogue software: PARTS-PUBLISHER
- ERP: SAP
- ECAD: E3.series
- CAD: SolidWorks
- XVL Converter (3D Converter from Lattice Technology)
- XVL Player (3D Viewer from Lattice Technology)

www.viastore.de

Case Study
Order-related spare parts catalogues for intralogistics systems

Technology partner Docware
For the implementation of these objectives viastore relied on the expertise of the Fürth-based software specialist Docware. Based on Docware’s main product PARTS-PUBLISHER, a spare parts catalogue software that has a standard interface for the E3.series and an integrated 3D viewer, within twelve months a spare parts catalogue system was created that satisfies all requirements.
Conclusion

At viastore only standard software is used. There was no additional programming. Using PARTS-PUBLISHER in combination with 3DXVL technology and the PARTS-PUBLISHER interface for E3.series led to the following results:

- The compilation process for catalogues became much more efficient with partial automation
- 3D models and circuit diagrams are integrated in the catalogues with minimal effort
- Paper catalogues are no longer required
- Customers can access comprehensive information on mechanical and electronic parts online via the customer portal or on CD – simple, quick and system-specific
- 3D models in the catalogue simplify the identification of the spare parts required
- Electronic circuit diagrams are an excellent aid during signal tracking and in the elimination of electrical or electronic faults
- The option to initiate spare parts orders or requests directly from the catalogue prevents incorrect orders and accelerates order processing

“Our customers want to operate their intra-logistics systems as efficiently as possible. For this purpose PARTS-PUBLISHER catalogues are an excellent support. Because thanks to the system-specific data provision, comprehensive search options, clear 3D models and integrated circuit diagrams they find what they need quickly and accurately. With PARTS-PUBLISHER the procurement of spare parts is easier, incorrect orders are almost ruled out entirely and the deliveries are effected quicker.”

Roland Lachenmaier,
Head of After Sales Department,
viastore systems

Online ordering of spare parts

Particularly with the new online spare parts catalogue viastore offers its customers an additional service to get the required spare part quickly and simply. The spare parts catalogue system is integrated in the Internet platform my.viastore.com. After login authorised users receive access to extensive information on their system. The correct parts can be selected and placed in the shopping cart in the desired quantity quickly and accurately via the catalogue and the integrated electrical circuit diagrams. The intuitive user interface, made possible by touch features such as smartphones or tablets are also supported.

viastore decided in favour of Docware because the system is clear and understandable, and is also easy and intuitive to use. Docware met all of viastore’s requirements. Subsequent changes and enhancements such as additional languages and character sets like Cyrillic or Chinese are not a problem. And up to date devices such as smartphones or tablets are also supported.” (Roland Lachenmaier, Head of After Sales Department, viastore systems)

Semi-automated catalogue compilation

Using the PARTS-PUBLISHER spare parts catalogue solution the catalogue compilation process was semi-automated. All catalogue media (print, CD, Internet) are compiled in the single source procedure, i.e. from a common data source - the catalogue database - in German, English and French. This means providing various catalogue media requires no additional effort. All catalogue data – parts lists, exploded drawings, 3D models, documents and circuit diagrams – are imported into the workbench of the catalogue software. The further processing of the data in the PARTS-PUBLISHER workbench up to the catalogue issue is automated. Only a few mouse clicks are required from the data input to the publication of the catalogues.

3D models

viastore illustrates its spare parts catalogues using exploded drawings and 3D models. The 3D data comes from SolidWorks and is integrated as 3DXVL files in the spare parts catalogue. There is an XVL Converter plug-in installed at the CAD workstation to automatically convert the 3D models generated with SolidWorks to the XVL format. 3D models that can be zoomed and rotated and allow other interactions such as “hide parts” increase the clarity of the catalogues.

"Huge" electrical circuit diagrams with over 1,200 pages

A particular challenge that viastore overcomes with minimal effort thanks to the new spare parts catalogue system is the provision of extremely large electrical circuit diagrams in the electronic spare parts catalogue. Electrical projects generated using E3.series are automatically imported to the PARTS-PUBLISHER catalogue system. This is possible as PARTS-PUBLISHER has a standard interface for E3.series. The circuit diagrams sometimes have over 1,200 pages per system. These are automatically linked in the spare parts catalogue during the compilation of the catalogue, enabling simple and quick signal tracking point-and-click – over all data sheets – also in “huge” circuit diagrams. The signal tracking point-and-click means extremely simplified troubleshooting when one thinks of the conventional thumbing through comprehensive and bulky circuit diagram collections on paper.
Conclusion
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