

3D spare parts catalogues straight from Inventor



DOCware

Case Study

eLEXIS Group

HEKUMA

Hekuma GmbH, a member of the elexis group of companies, is a global market leader in the production of automation systems for injection moulding machines. The company's headquarters are situated in Eching near Munich, Germany. Hekuma supplies its customers with tailor-made solutions and has developed standard systems in many different industries (e.g. medical technology, pharmaceuticals, electrical engineering, automotive, packaging and consumer goods) that satisfy the most stringent of requirements.

3D spare parts catalogues on CD-ROM

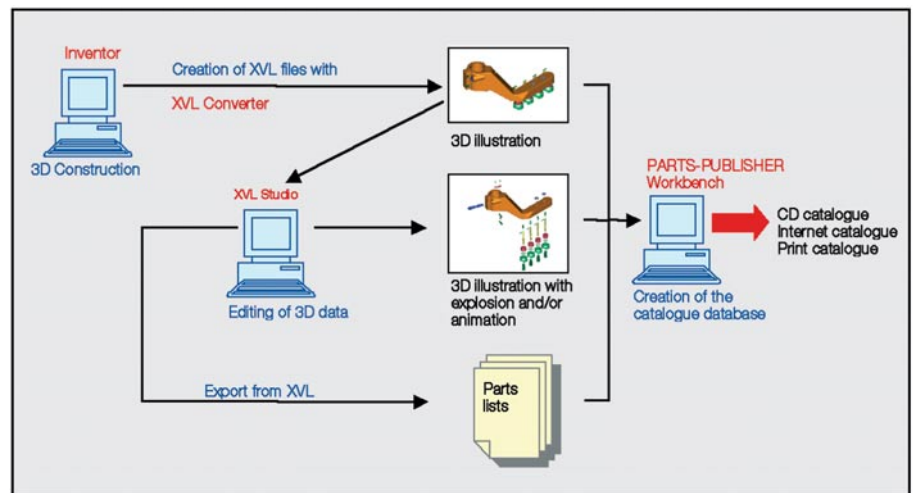
Hekuma is one of the first companies in Germany to produce machine-specific spare parts catalogues with integrated 3D illustrations for its service technicians and customers. The catalogues are generated directly from the company's own CAD

system, Inventor, and transferred to CD-ROM. A web-based solution is also in the pipeline.

Choosing the right software

Having spent several months evaluating the various software solutions on the market for electronic spare parts catalogues with the 3D component, Hekuma opted for PARTS-PUBLISHER from Docware. The main factors that swung the decision in favour of PARTS-

drawings and parts list data, is generated directly from Inventor and then imported into PARTS-PUBLISHER's catalogue database for automatic production of the catalogues. At the touch of a button, parts lists can be extracted from the original 3D design data, exported as Excel files and then imported into the catalogue database. 3D drawings are imported into the PARTS-PUBLISHER database in the new 3D format XVL.



Industry sector

Plastics Industry /
Packaging Industry

Application

Electronic spare parts catalogues
with 3D integration

Technologies

PARTS-PUBLISHER with
integrated XVL Viewer

XVL Converter

XVL Studio

PUBLISHER were the optimised workflow in the generation of catalogues and the impressive 3D functionality of the catalogue viewer.

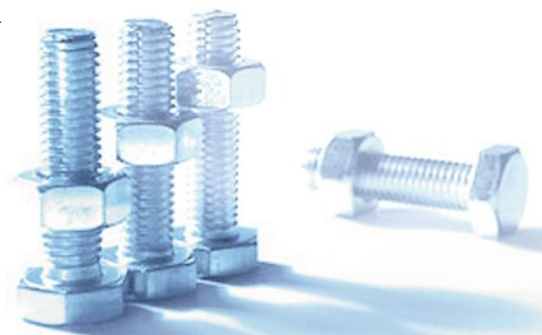
PARTS-PUBLISHER is a standard software package that can be used to automatically create spare parts catalogues for print, CD or Internet publishing in a single-source process. For the graphical representation of modules, 2D data can be shown as, for example, SVG, CGM or TIFF files. To display 3D data the catalogue software includes XVL Viewer from Lattice Technology.

Direct import of data from Inventor

All the data provided in Hekuma's machine-specific spare parts catalogues, both

Converting to XVL

The 3D data generated with Inventor is converted into XVL format using an XVL Converter plug-in (Lattice Technology) at the Inventor workstation. This process allows the user to generate XVL models at the touch of a button even without specialist knowledge. XVL Converters are available for all standard CAD systems and also for neutral formats such as IGES, VRML and ParaSolid.



Maximum data compression with XVL

The advantage of XVL is that it enables 3D models to be compressed to less than 1% of their original size with virtually no loss of data. For example, a 3D model generated with Inventor with an original size of 18 MB is converted into an XVL file of just 317 KB within just 54 seconds.

Generating 3D exploded drawings

3D representations and animations can be generated with the XVL editing tool XVL Studio (Lattice Technology). This tool allows you to edit object structures, move elements, rotate and resize, modify characteristics such as material, colour and pattern, and change the angle of viewing or lighting. You can also make cuts, enter dimensions or add comments. As well as static representations, there is also an interactive tool for creating animations.

Automated catalogue production

With just a few clicks, PARTS-PUBLISHER Workbench automatically links the drawings and parts lists in the catalogue database and prepares them for transfer to CD or for printing (single-source process).

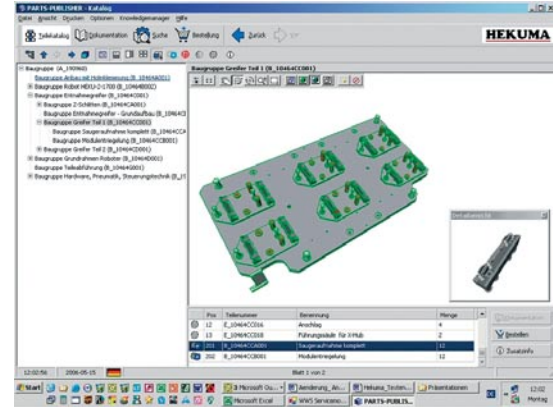
3D interactive spare parts catalogues

Docware GmbH has fully integrated the XVL Viewer from Lattice Technology into the PARTS-PUBLISHER catalogue software. This free 3D viewer is supplied along with every 3D catalogue CD generated with PARTS-PUBLISHER, allowing the end user to view a catalogue's XVL data (including animations) on any PC with a Windows operating system. The viewer has a many different display functions, enabling a wide range of interactive options.

The 3D technology used in the spare parts catalogues also benefits Hekuma's service technicians and customers. The 3D models clearly illustrate the structure, position and exact appearance of Hekuma machines, individual assemblies and parts. The models and their components can be pivoted, rotated and viewed from different angles. The zoom function allows you to zoom in and out on models or assemblies. The representation in the PAN window (postage stamp view) helps you navigate your way around large drawings. You can also interactively modify the view of the parts displayed in the PAN window. Transparent mode gives you the option of viewing the internal workings of the machine or assembly. Other controls are also available for making components and display elements visible. These controls can be used to select various colour mapping views and a variety of shading styles, including wireframe, hidden line, shaded and textured.

The results speak for themselves

Hekuma received the first positive feedback on its 3D spare parts catalogues after an introductory phase of around four months. Catalogue users praised the fact that the CD version was easy to use and required no installation. The optimised presentation of the contents, the interactive features and the option of ordering spare parts direct from the CD catalogue were also highly rated.



„The fact that we can generate our spare parts catalogues automatically direct from the Inventor data takes us to the next level in terms of the efficiency of catalogue production and the quality produced,“ says Helmut Schmid, Service Manager at Hekuma. Using conventional methods, 3D CAD data needs to be converted into perspective illustrations in what is a time-consuming process, but with PARTS-PUBLISHER and XVL technology it can be imported straight into the catalogue. The integrated 3D illustrations improve the quality, clarity and information content of spare parts catalogues.

We would be pleased to contact one of our reference customer's representatives for you. And of course we are ready to give you a demonstration of the Hekuma spare parts catalogue system.



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