

Ever since Johann Felder unveiled his first planing machine in 1949, increasing demand has driven the continuous development of new machines and, with the construction of combined wood working machines, the family business FELDER eventually became known all over the world. FELDER KG is proud of its longstanding engineering tradition, although nowadays it also uses the very latest production methods. Continuous quality control and ongoing optimisation ensure efficient products and safe application of those products.



For precisely this reason, FELDER takes great care in creating comprehensive, user-friendly product documentation. The documentation processes at FELDER have undergone a number of fundamental development stages over the last few years. Formerly, isometric views for operating instructions were drawn, scanned and reworked by hand.

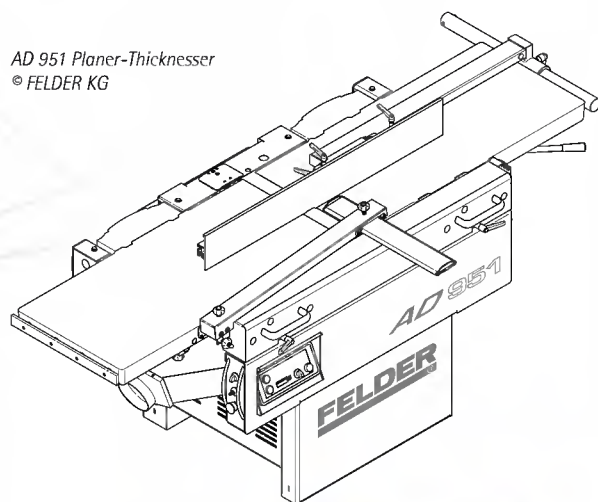
In 1994, with the acquisition of the IsoDraw illustration software (then in Version 3), the company changed over to computer-aided drawing. Since then, the quality of the illustrations has increased steadily, from "for recognition purposes only" to true-to-scale isometric explosion drawings. Up till the present day, all spare part drawings, isometric (dimetric) views of the machines for operating instructions, assembly drawings and instructions, logos, stickers and films for operating panels have been created in-house using IsoDraw, and this will continue to be the case in future.

In the long term, all photos in the operating instructions are to be replaced by line-art graphics, and it has already been possible to implement this to a large extent. The increased use of illustrations in the instructions eliminates the need for larger volumes of text and therefore saves on translation and printing costs. This also has crucial advantages for the Internet in terms of presentability and transportability.

As part of the ongoing further development, the software at FELDER has also been continuously adapted to changes in the market. In 2003, the existing license was upgraded to IsoDraw CADprocess. This additional step made it possible to use 3D design data as a basis for the technical illustrations – and to harness new potential for optimisation.

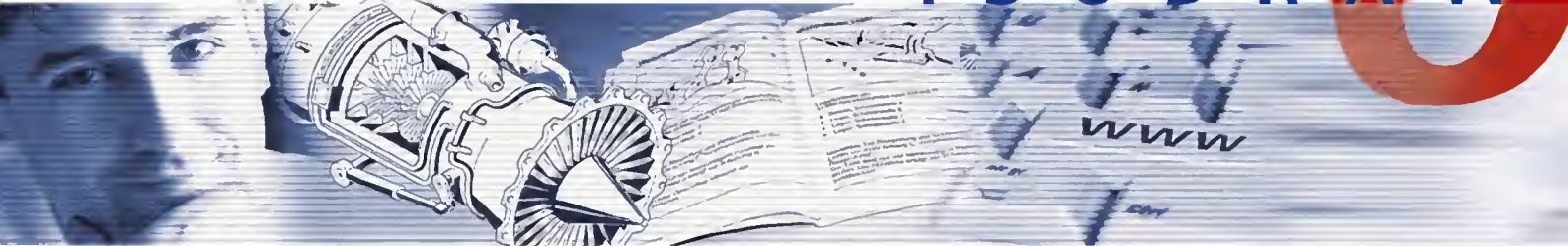
The development department at FELDER KG uses SolidWorks (current Version 2005) and provides the basis for importing data with IsoDraw CADprocess using the IGES interface. The key factor now is that the illustrator can work with the 3D data without any access to the CAD system and without the help of the designer. He also has complete artistic freedom, i.e. he can apply Technical Illustration style tools and techniques to the 3D data. This was not so easy to do in 3D CAD where the emphasis was on true-to-scale, design-accurate representation.

AD 951 Planer-Thickener
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CADprocess

ISO DRAW



The process at FELDER now looks like this:

The design department supplies IGES files. The aim is to import complete machines as assembly drawings. File sizes over 200 MB make considerable demands on hardware and software, but they also offer the advantage of being able to work more flexibly.

For the most part, these assembly drawings have to be augmented, since, from a design perspective, it is not always possible to save all options, e.g. accessories, in one file.

Once the machine has been imported into IsoDraw, the multiple IGES files are combined into a complete assembly drawing and saved as a 3D IsoDraw file. This reduces the volume of data to approx. 40% of the original IGES file.

This assembly drawing is then divided up into individual assemblies. If the individual assemblies are assigned corresponding layers, it is possible to reduce the processing time for creating the 2D drawing by hiding assemblies that are not required or not visible.

Both dimensioned dimetric overall views (e.g. for planning the space requirement at customers' premises) and explosion drawings of individual assemblies can be created using only this one file.

The parts on the explosion drawing are automatically allotted position numbers and object identifiers using a macro. The finished drawings and the spare parts lists exported from them (= object lists) are then entered as a chapter in the operating instructions for the relevant machine using Adobe InDesign.

The documentation for each machine is printed in house, bound and added to the relevant machine.

This allows modifications and additions (particularly for spare parts) to be supplied newly printed to customers in minutes. Purely theory a few years ago, this way of working has now become a reality at FELDER thanks to IsoDraw CADprocess.

When converting the IGES file into a technical illustration, hidden lines are deleted fully automatically and the correct line thicknesses created. This time saving is huge. For example, for a complicated cast part, it used to take several days to draw an isometric view. IsoDraw CADprocess reduces that time to just a few minutes. The advantages are considerable, particularly if you need another view or even a cross-section of this type of part ...

"The IsoDraw macro language gave us a further means to increase our efficiency," explains Mr. Hammer. "Being able to run repetitive processes automatically using macros considerably facilitates working with IsoDraw. From the simplest tools (changing preferences such as tooltip on/off, grid on/off, select fills on/off etc.) right through to complex processes such as deleting all pens not used for a drawing, the IsoDraw macro language makes workflows much more efficient."

The future?

"It's possible we may equip more workstations in future, however at the moment we are managing very well with our existing setup, thanks in no small part to the efficiency and high performance of IsoDraw CADprocess. What is certain however is that we will maintain our service contract with ITEDO so that we can keep our installation up to date in future. After all, every update so far, however small, has meant huge improvements to our workflows!"

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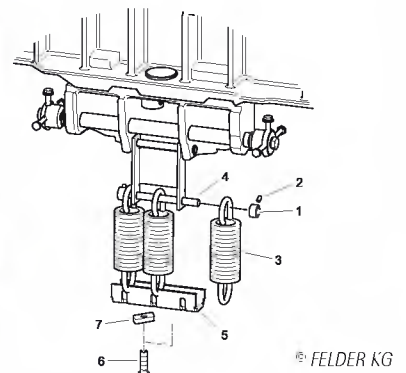
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FELDER

"The acquisition of IsoDraw has allowed us to make substantial savings. The time saved has enabled us to invest in creating additional illustrations and thereby improve the quality of all our documentation."

Günter Hammer
Head of Technical Documentation
FELDER KG - Hall in Tyrol



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