

# Three-dimensional simulation of textile design

# The high-tech key to making fabric textures transparent

Modern textiles are created by the application of sophisticated engineering science. Lapping technology, alongside yarn properties and finishing, is central to the development process. Lapping details provide the targeted feel-good factor and technical properties.

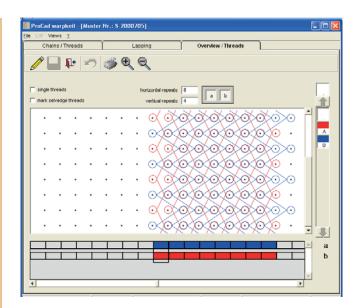
## Three-dimensional textures in close-up

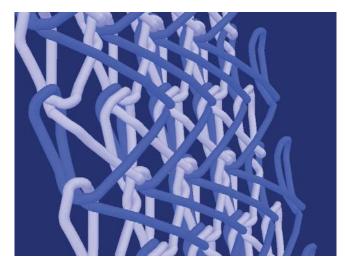
The display and evaluation of three-dimensional textures at the development stage is made possible by ProCad warpknit 3D, the ground-breaking latest addition to our tried-and-tested ProCad product family. Through rotation and zooming, even the smallest detail of these intricate three-dimensional images is made available for close examination. Technically sophisticated algorithms enable realistic reproduction of elastic effects in pattern designs. Single and double needle textiles can be calculated with different stitch densities, thread let-off values, yarn thicknesses, colors and elasticities. All images can be printed out for documentation purposes or saved in files.

#### **Details made visible**

Visualizing the often complex lapping of products is a formidable challenge, even to those very experienced in textile production. Application of ProCad warpknit 3D spotlights the essential details. Concentration can be fully focussed on the creation of variation options.

As an aid to the design process, ProCad warpknit 3D is especially useful to newcomers to textile design, enabling, for example, to see the effects of any number of alternative lappings. ProCad warpknit 3D makes on-the-machine experimentation a thing of the past, freeing up machine capacity for actual production. While lapping technology is not simple for newcomers to master, application of ProCad warpknit 3D can





reinforce and speed up the learning process. Training up new people is an important investment factor for the future of any company.



#### Two smart tools in tandem

ProCad warpknit 3D slots smoothly into the modular structure of ProCad warpknit, which enables storage of all product-relevant data in a product database. Just a few mouseclicks will enable you to select different threadings or yarns, thus creating fresh variations with new properties and look.

The simulations you create using ProCad warpknit 3D are based on this product data and calculate the three-dimensional texture of your designs. Yarn properties saved in the yarn atlas and sequences of fabric take-off and thread let-off flow into the calculation model and provide a physically correct picture of the yarn effects produced. Yarn strength and color schemes can be interactively changed in the simulation with immediate examination of the effects created. Even the most complex textures can be rendered transparent by switching individual threads on and off.

VRML export functionality ensures that the textures are available for further processing. The images created can be exported as files for documentation and training purposes.

#### **Technical Information**

## **Operating system**

Windows XP or Vista

#### **System requirements**

RAM

≥ 1 GB

Hard disk memory

USB-Port

≥ 100 MB free

CD ROM drive



ProCad warpknit 3D is a stand-alone program in the ProCad software package. ProCad provides tools which aid professional creativity in fabric design technology. Each software module has been developed to support the various stages of pattern creation and will aid you in all development and file administration processes.

# Information and support

You are invited to obtain the latest information about all ProCad products by visiting our internet pages at www.texion.eu. You are also welcome to contact us by mail, phone or fax. We shall be pleased to answer any questions.