

# *TopSolid*

Wood



THE INTEGRATED CAD/CAM  
SOLUTION FOR  
THE WOOD INDUSTRY

MASTER YOUR  
MANUFACTURING PROCESS

# ONE CAD/CAM SOLUTION AND ONE PROFESSION: WOOD

TopSolid'Wood is both a very powerful CAD/CAM solution, and a dedicated software package for specialists working in design offices and workshops that really understands the trades in the wood industry. This successful combination of leading-edge information technology and specialized knowledge of the trade acquired during several generations results in a surprising and unique solution that effectively integrates the design and production dimensions of the wood industry!

TopSolid'Wood, in conjunction with TopSolid'WoodCam, can be used to automatically produce the ISO programs of the designs, ready to be machined on digitally controlled machining centers. A genuine digital chain is created between the design office and the workshop, avoiding numerous errors and saving a lot of time.

## **A dedicated solution for the problems encountered in the wood industry**

TopSolid'Wood is the only integrated CAD/CAM software package specially developed to meet the needs of the wood industry. The software features specialized functions such as molding, counter-molding, grooving, rabbeting, turning and sawing, assembly by pins, eccentrics, screws, tenon and mortise, or the placing of edges and surfaces. The range of specialist functions offered by TopSolid'Wood enables users to execute designs that take account of the constraints applying to the workshop.

Missler Software proposes an integrated, complete and highly efficient solution for the wood industry. TopSolid'Wood is intended for all the trades involved in the second transformation of wood and in particular, fittings, furniture production, urban amenities and fittings for leisure vehicles and boats. Opt for a software package dedicated to wood, offering full integration from the design to the manufacture of your parts.

Right from the modeling phase, these specialist functions solve all the problems associated with machining 3D models by adopting a "design to build" approach. These specialist functions can also be finely customized for a precise and effective adaptation to the various manufacturing processes.

#### Integration with all TopSolid products

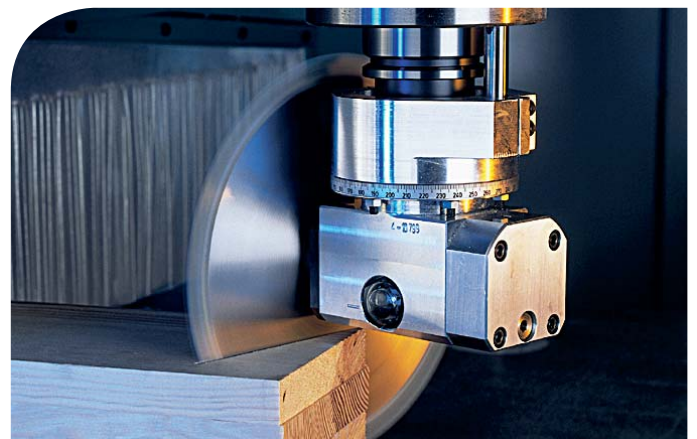
The integration of TopSolid'Wood with the other modules in the TopSolid range allows you to easily develop multi-material projects (wood, metal, plastics, mechanical parts, etc.). A common core across the range of TopSolid products allows you take on different types of project, without having to buy or learn new software.

#### A fun sales tool

TopSolid'Planner is a graphical configurator that the sales force can use to fit out the customer's interior using the library of furniture. The highly simplified user interface of TopSolid'Planner means that the sales force can learn to use the software quickly and can produce realistic 3D images in record time and prepare project estimates in real time right in front of the customer.

The TopSolid'Planner is fully integrated with the TopSolid, first by building the library in the design office using TopSolid'Wood, and, subsequently, by using the configurator directly from the preparation to the production of projects designed with

TopSolid'Planner (parts lists, log sheets, optimization of panels, machining program, etc.).



A powerful CAD/CAM solution for wood processing.



Interior design realized with TopSolid'Wood.

# MODEL, PROTECT AND BUILD ON YOUR IDEAS

The problems encountered in the design, research and development of wooden products vary significantly from one field of activity to another. Based on a complete, modern and very powerful CAD/CAM solution, TopSolid'Wood features the most advanced volume and surface modeling system on the market (the Parasolid modeler), outstanding performance for large assemblies and drafting, kinetic, dynamic and structural calculation simulations and compatibility with every native geometric format.

## Make the most of your know-how

TopSolid'Wood proposes a range of tools to create and customize your company standards. You can model and organize your own library containing your hardware, subassemblies and furniture. These components can integrate machining and positioning, and much more, to boost your productivity even further. The creation of a hardware library can be accelerated by using smart 3D geometries retrieved directly from the manufacturer (machining processes, predefined positions, articulations, etc.).



TopSolid®Wood can efficiently manage even the most complex projects thanks to its powerful design functions and assembly management features. The settings and associativity of TopSolid®Wood enable you to make the most of your work every day. Repeating the same operations is no longer a problem!

#### A natural methodology for big projects

Benefit from a large selection of components to get off to a quick start:

- > Assembly hardware, runners, hinges, etc.
- > Contours for moldings, baseboards, banisters, etc.
- > Flat, chamfered and rounded edges
- > Molding, counter-molding, milling and sawing tools

#### Optimized management of your assemblies

Manage assemblies of thousands of pieces with:

- > Design in place: an item of furniture can be entirely designed in a single file
- > Design by reassembly: assembly of furniture, subassemblies and separate parts using constrained positioning
- > Kinematics: simulation of usual linkages (slides, runners, pivots) and collision analysis.

#### Easy communications

Use standard import and export interfaces for easy communications with your customers and suppliers:

- > 2D drawings: DXF, DWG, etc.
- > 3D models: STEP, Parasolid, IGES, etc.
- > Images: BMP, JPEG, TIFF, etc.
- > 3D PDF: Adobe Reader

#### Work easily with the most common production software

- > For panel optimization software, files are written in native format (Opticoupe, Proficoupe Ardis, etc.) or parts lists are written in text or Excel format

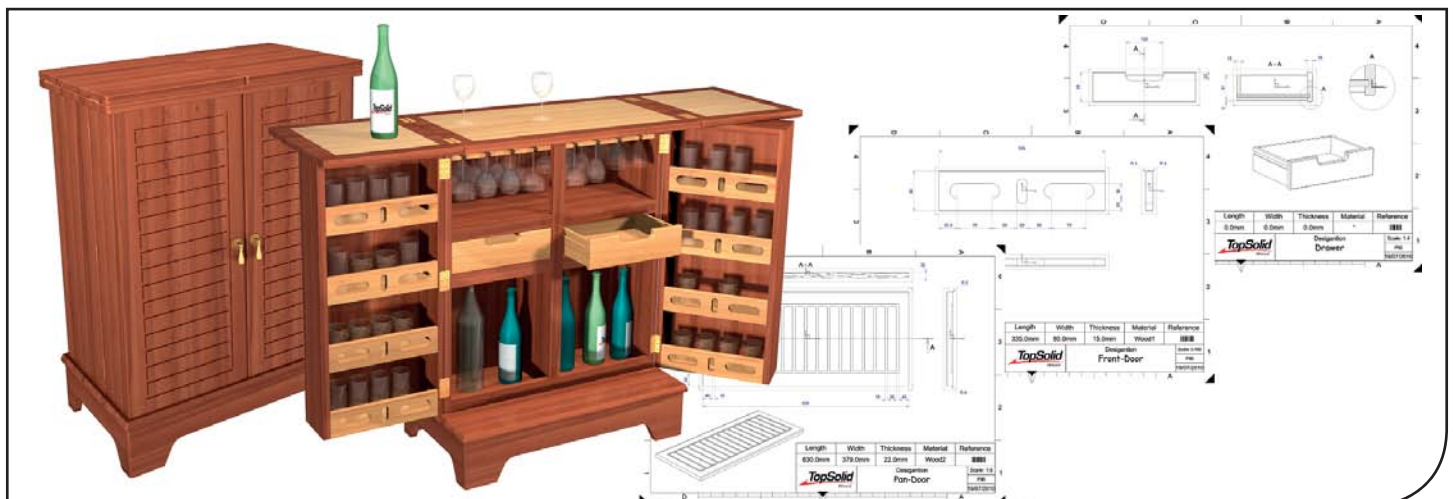
- > For digitally controlled machining centers, files are written in native format (WoodWop, Xilog, etc.) or geometries can be exported in DXF format

#### Efficient drafting and precise parts lists

- > Multi-draft with automatic dimensioning
- > Log sheet with customized views and title blocks
- > Filtered parts list for the list of panels
- > Ray Tracing calculations: reflectivity, cast shadows, texture library



TopSolid®Wood meets the needs of designers, manufacturers and sub-contractors in the wood working sector (image: Victoria Jungfrau Interlaken, Strasser AG Thun, Triviso AG Solothurn).



Unlimited creativity combined with efficient drafting.

# A POWERFUL AND INTEGRATED CAM SOLUTION

In TopSolid'WoodCam, the positioning of the CAD-designed part on the 3D model of the machine allows for total associativity between the design and the preparations for machining. The tool paths are calculated at every stage on the basis of the geometrical model representing the part to be created, of the predefined stock in TopSolid'Wood, the kinematics and the machine geometry.

## Total associativity between design and production

- > The CAM software recognizes the operations made on the parts in CAD (calibration, grooving, rabbeting, drilling, molding, pocketing, etc.)
- > Automatic creation of tools in the CAM database, according to their CAD definition
- > Correlation between the materials defined in CAD and the database of CAM tools, for automatic and precise settings of the cutting conditions
- > Complete associativity between the model defined in CAD and the preparations in CAM

Any design changes can be applied to machining without having to reconsider all the working hypotheses (position of the tool, identification of operations, selection of tools, etc.). The new ISO blocks are generated immediately following changes.

TopSolid<sup>®</sup>Wood, combined with the TopSolid<sup>®</sup>WoodCam machining module, is an integrated CAD/CAM solution that automatically calculates machining operations by analyzing the geometries. Missler Software works in close cooperation with the manufacturers of machine tools for wood in order to develop post-processors that optimize production time and costs.

#### Made-to-measure machining solutions

The TopSolid<sup>®</sup>WoodCam offer features three levels of machining:

- > Simple machining: in 2D½, with management of drilling tracks and aggregates
- > Machining of free-form shapes: regular machining supplemented by 3D functionality
- > Complex machining: in 4- and 5-continuous axis mode

#### From simple to complex machining

- > Highly advanced management of the tools stock
- > Effective topological analysis: the list of possible machining operations can be obtained simply by selecting a surface
- > Precise stock part management: by updating stock parts as operations are performed, the removal of the material can be simulated
- > Complete 3D simulation: the tool path can be viewed and checked with the complete environment. Any collisions or overruns are detected in every axis. The operator can immediately see that tool path matches expectations.

#### Command of all your manufacturing processes

Whether you machine part by part or by grouping nested parts, TopSolid<sup>®</sup>WoodCam offers efficient and customizable tools to prepare for production:

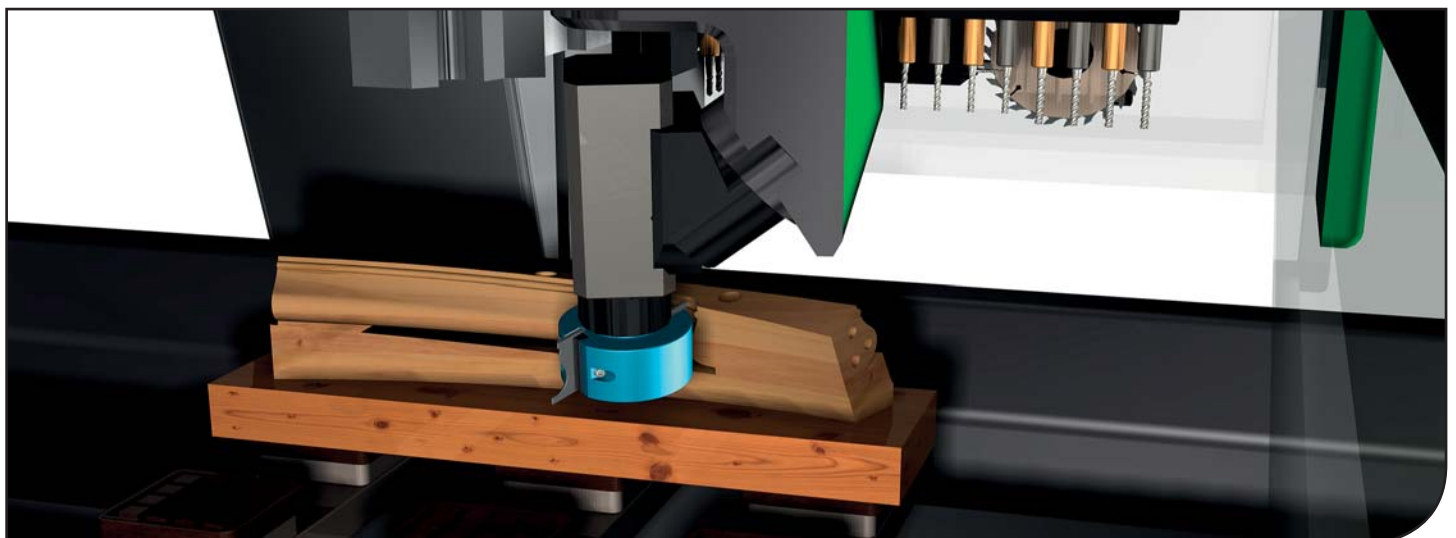
- > Multi machining: this key function can be used to produce all the tool paths for the parts of an assembly in record time. The parts are selected, grouped according to criteria (material, thickness, etc.), then, machined according to pre-defined

methods: positioning, machine configuration, operating procedures, etc.

- > Nesting: This other key function is used to directly machine plates of nested parts from a multitude of projects. TopSolid<sup>®</sup>WoodCam calculates optimal nesting, in rectangles or any other shapes. This function makes significant savings in terms of materials and cycle times. Every part is tracked using labels.



Designs made to be manufactured - TopSolid<sup>®</sup>Wood has been developed for use in a manufacturing environment and is completely integrated with TopSolid<sup>®</sup>WoodCam.



5 axis machining with TopSolid<sup>®</sup>WoodCam.

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