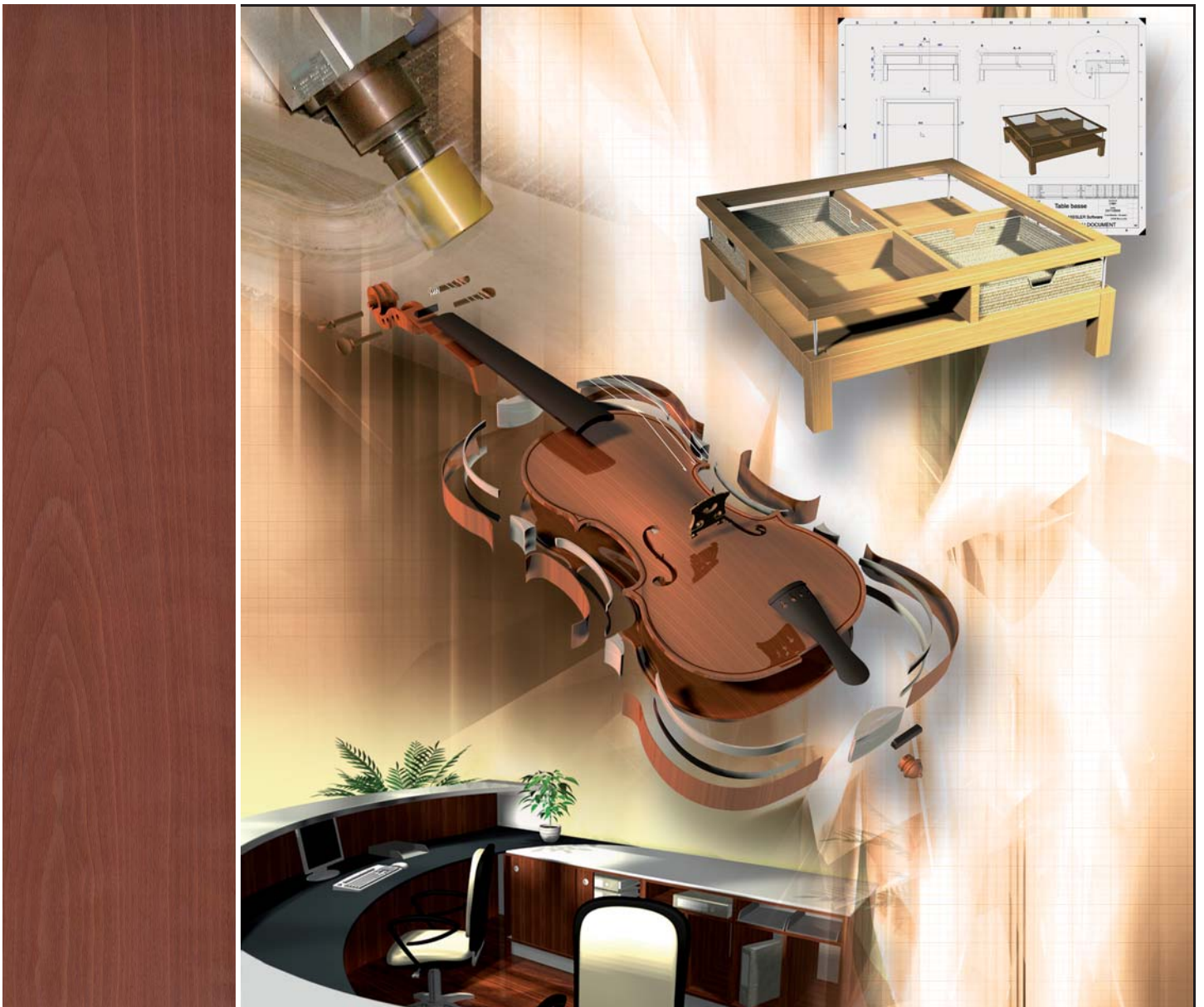


## Integrated CAD/CAM for the wood industry



The Integrated CAD/CAM/ERP Solution

## An integrated solution for the wood industry

TopSolid'Wood is an integrated design, manufacturing and management software specialised for wood processing. It is a uniquely integrated CAD/CAM wood solution that meets the needs of designers, manufacturers and sub-contractors in the wood working sector.

TopSolid'Wood offers all the modelling facilities of the powerful CAD module TopSolid'Design. In addition, TopSolid'Wood offers industry-specific functions for wood-making which enable unprecedented time and quality gains.

### DESIGN AND MANUFACTURING WITH ONE SOFTWARE SOLUTION

TopSolid'Wood is completed by TopSolid'WoodCam, an integrated CAM solution which automatically produces the ISO code, via a post processor, to manufacture parts on CNC machinery.

A real data flow exists between the design office and the manufacturing facility. This prevents numerous potential communication and technical errors and thereby generates considerable time gains.

TopSolid'Wood manages all the tasks involved in the transforming of wood into finished products in the following domains:

- Interior design and cabinets
- Furniture production
- Office furnishings
- Store fixtures and displays
- Leisure vehicles, boats ...



The inside of a boat designed using TopSolid'Wood by the company Judel & Vrolijk. TopSolid'Wood is a perfect solution for interior designs.

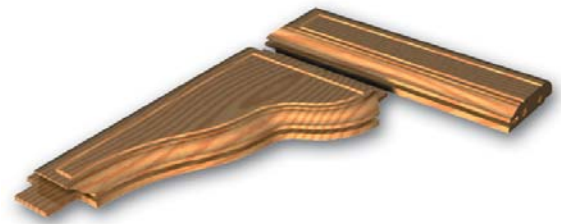


## Design your projects in 3D

The modelling flexibility of TopSolid'Wood offers the designer several techniques to suit his requirements. This is very important in the wood industry where design, research and development projects vary greatly depending on the sector of activity.

### 3D MODELLING

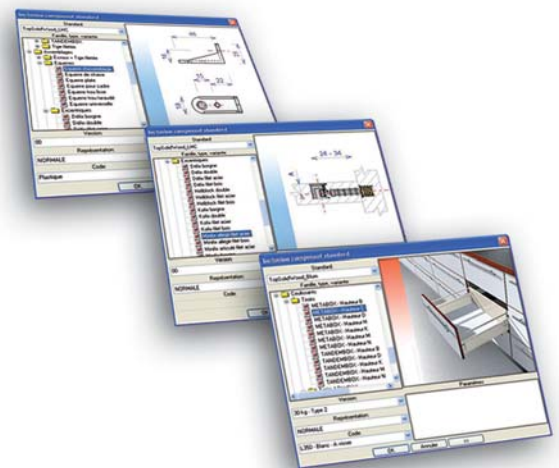
- Modelling showing material removal with TopSolid'Wood's job-specific functions: turning, sawing, dadoing, rabbiting, dowelling, edge profiling, rail and stile profiling etc.
- Assembly processes by using components selected from the menu such as dowels, cams, dados, blind dados, screws, dovetails, as well as custom joinery techniques.
- Positioning assistant for edges and layering



TopSolid'Wood's industry-specific functions allow the user to design while respecting shop floor constraints.

### COMPONENT LIBRARIES INCLUDING THEIR MACHINING PROCESSES

- Hardware (assembly, rotation, sliding, etc.)
- Accessories (handles, rails, wedges, etc.)
- Tools (shaping, saws, drilling, etc.)
- Edges (thin or thick edgebanding, T-mould etc.)
- Shapes (cornices, skirting, ramps, etc.)
- Blum and LMC libraries
- Etc.



Many standard components available enable you to reduce design times.



Roséo design

Modelling a complete shop, office, boat ... is no problem for TopSolid'Wood.

### AN OPTIMISED ASSEMBLY MANAGEMENT

- TopSolid'Wood manages the assembling of several thousands of parts and components
- In place design: a piece of furniture can be entirely designed in one file
- Bottom-up design: assembly of various sub-assemblies and parts using positioning constraints
- Kinematics: simulation of normal kinematic links (runners, grooves, pivots, ...) and collision avoidance



TopSolid'Wood offers realistic rendering functionalities to help you better sell.

## DATA EXCHANGE WITH PARTNERS

TopSolid'Wood also interfaces with standard import and export software:

- 2D Designs: DXF, DWG
- 3D Models: IGES, STEP
- Image formats: BMP, JPEG, TIFF ...
- 3D PDF: Adobe Reader
- ... etc.

## COMMUNICATE WITH EASE

- Multi-draft generation with automatic dimensioning
- Assembly and other shop sheets with personalised views and title blocks
- Filtered BOMs with cutting lists

## DIRECT LINK WITH MANUFACTURING

TopSolid'Wood offers a direct interface to the most common software programmes:

- Export to cutting optimisation software (Ardis, CadCode etc.)
- 2D export to numerically controlled production centres (WoodWop, Xilog, BiesseWorks, CadCode, etc.)

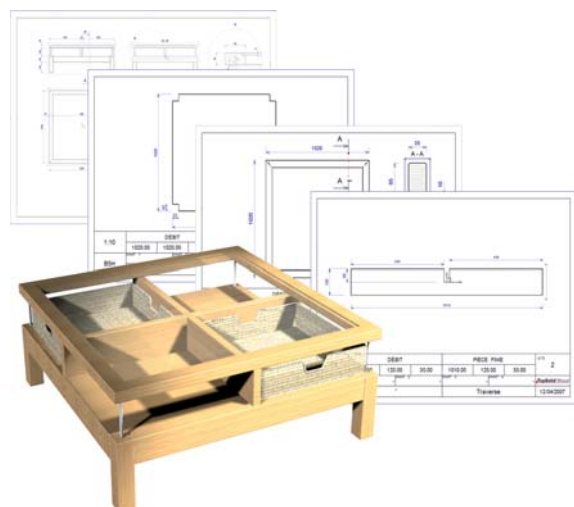
## REALISTIC RENDERED IMAGES

Calculation of rendered images in Ray Tracing

- Reflectivity
- Shadow range
- Library of 3D Textures

Light source generator

- Environments
- Spot
- Fixed lights

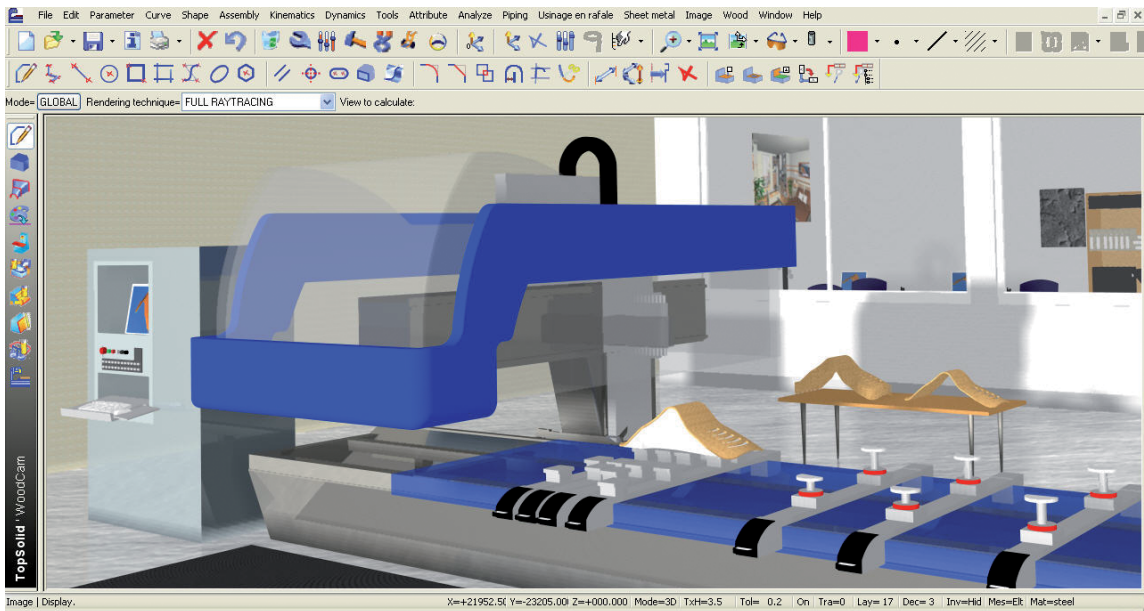


TopSolid'Wood manages your catalogue images, production drawings and BOMs.

# A total integration between CAD and CAM

The existence of a 3D design model in TopSolid'WoodCam offers complete integration between design and production processes. All tool paths are calculated taking into account the geometry of the model to be produced, the specific tooling to be used and the original stock as defined in TopSolid'Wood.

Any modification made during the design stage is automatically recuperated in the machining stage without having to make time-consuming changes (positioning of the part, identification of operations, choice of tools, etc.) The generation of the new ISO codes, following a design modification is, therefore, practically instantaneous.

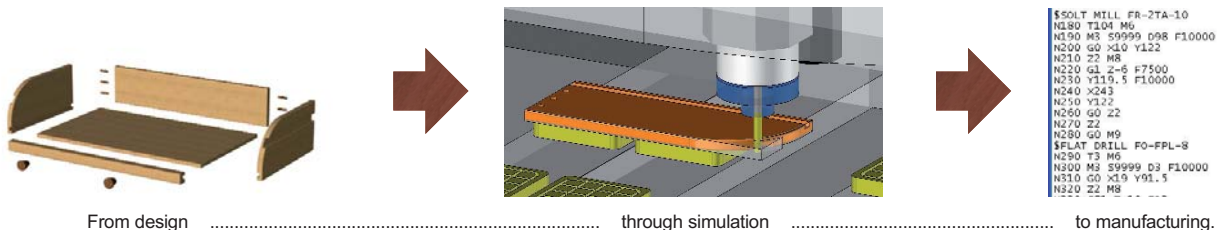


TopSolid'WoodCam offers complete manufacturing integration.

## VERY REALISTIC MANUFACTURING PREPARATION

Working in a 3D environment with the machine geometry enables an exact simulation of what will happen on the machine. Such powerful simulation capabilities allow the operator to anticipate possible programming errors.

In addition to this programming comfort TopSolid'WoodCam guarantees important time gains thanks to its automatic analysis of parts and assemblies designed with TopSolid'Wood.

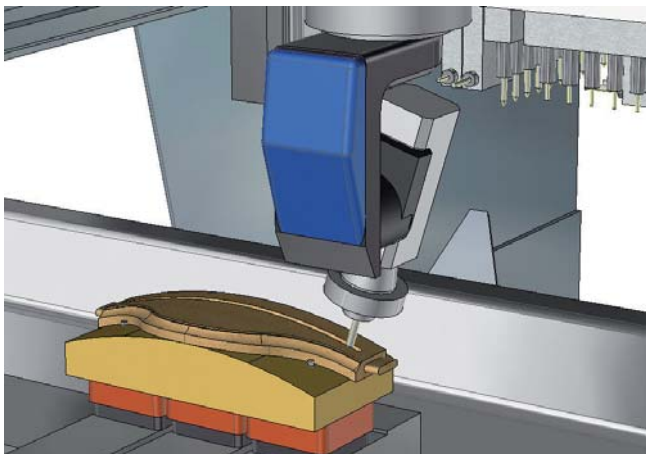


## COMPLETE ASSOCIATIVITY BETWEEN DESIGN AND MANUFACTURING

The integration of TopSolid<sup>®</sup>WoodCam with TopSolid<sup>®</sup>Wood can be seen in the following cases:

- Operations carried out in the design stage are recognised by TopSolid<sup>®</sup>WoodCam (rough milling, grooving, surfacing, drilling, profiling, routing, doweling, etc.)
- An automatic creation of tools in the CAM database taking into account their CAD definition
- A correlation between materials defined in the CAD and the CAM database, for an automatic regulation and precision of cutting conditions
- Complete associativity between the models defined in the CAD and the CAM preparation.

All modifications carried out on the design are automatically recovered by the CAM software up until the generation of the ISO code.



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

## CUSTOMISED MANUFACTURING SOLUTIONS

TopSolid<sup>®</sup>WoodCam provides 3 manufacturing levels:

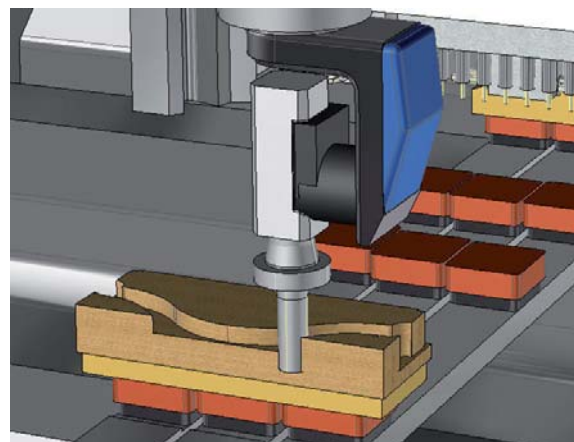
- Simple manufacturing: in 2½ D with the management of drilling and routing functions
- Manufacturing of moulding paths: simple machining completed with 3D functionalities
- Complex manufacturing: on 4 and 5 positioned or continuous axes



Automatic recognition of geometries for machining operations.

## ADAPTED TOOLS, FROM SIMPLE TO COMPLEX MANUFACTURING

- Tool management: all necessary functions are available to configure your machine
- Efficient topological analysis: by simply selecting a face the operator can obtain a list of all possible machining operations necessary to manufacture the part
- Precise management of the stock: the continuous updating of the stock during each operation enables accurate simulation of material removal
- Complete 3D simulation: the power and flexibility of TopSolid<sup>®</sup>Wood's verification tool permits, not only the visualisation of the 3D tool paths, but also the detection of possible collisions or over-riding of axis boundaries



Simulation with an update of the stock model.

<http://www.topsolid.com>

# Missler Software

## INDUSTRY-SPECIFIC KNOW-HOW AND CUSTOMER PROXIMITY THROUGHOUT THE WORLD

For more than 20 years Missler Software has been offering integrated CAD/CAM/ERP solutions for manufacturers and subcontractors. Its fully integrated solutions are distributed worldwide. Manufacturers and suppliers of the mechanical manufacturing, sheet metal and wood industries can now benefit from the advantages of integrated design and manufacturing. Thanks to its advanced technology and its fully integrated solution, Missler Software is experiencing rapid growth in the global CAD/CAM market. More than 8000 companies worldwide successfully use the TopSolid range.