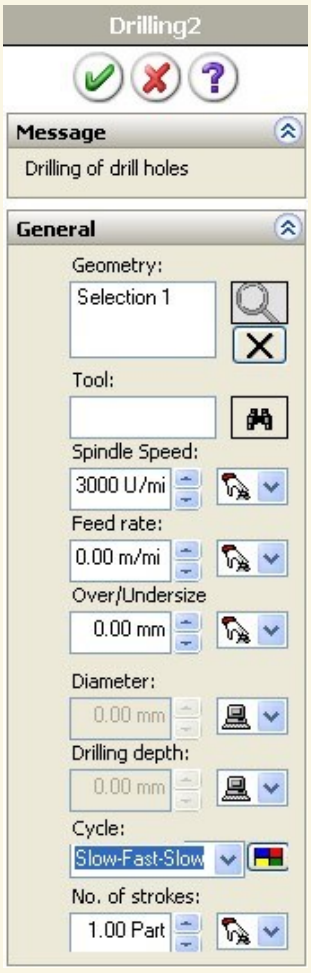
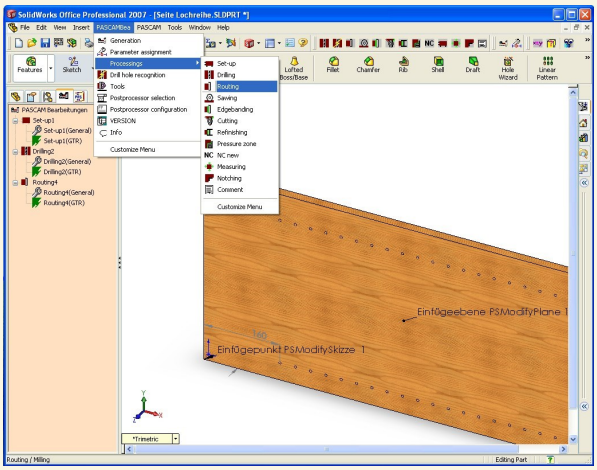
PASCAM Bea

SOLIDWORKS Solution Partner

Wood Specific CNC Machining in SolidWorks®

PASCAM Bea is a software extension for the 3D-CAD-system SolidWorks®, enabling the CNC machining of wood parts. It is the optimum CAM-system for woodworking CNC-machines.





PASCAM Bea offers a progressive and future-proof system for the manufacturing requirements of today's woodworker with the use of innovative feature-technology:

- Machining description derived from SolidWorks® geometry-features
- Modification of the SolidWorks® geometry automatically updates **PASCAM Bea** applied machining strategies - resulting in full associativity with the geometry as well as the feature
- Future-proof, due to the use of standard-CAM-generators/processors and capable CAM-partners

PASCAM Bea is an outstanding CAM system for feature-based manufacturing and supports the programming and control of all modern woodworking CNC machining centers.

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Adding state-of-the-art CNC manufacturing technology to traditional craftsmanship

Feature-based system, completely integrated in SolidWorks®

No restriction on the design or manufacturing of the model

Simple and familiar user interface - even for unpractised users

CNC-program generation for all common 3 and 4 axis CNC-machines

Special MPR-interface for CNC-machines of the Homag-Group

Excellent integration in **PASCAM WoodWorks** → very efficient CNC-program generation

Optional control of manufacturing parameters by dimensional equations or **PASCAM WoodWorks** Material-equations

Controlling different types of machines with one CNC-program

Storage of all relevant data in the SolidWorks®-model → simple data management

Automatic contour tracing for machining toolpaths

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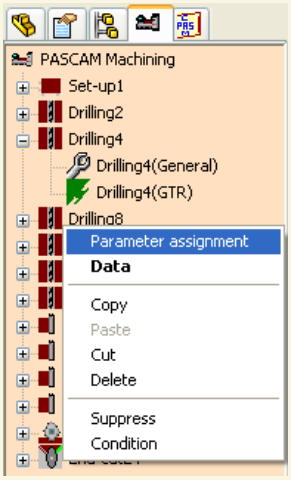
Advanced CNC machining, according your standards

The manufacturing of wood parts is something very company-specific. Therefore **PASCAM Bea** offers you the possibility to add woodworking machining features right into your SolidWorks®-model, resembling your individual manufacturing practices. Get the full control of all CAM parameters, with optional available automatic CAM file generation.



All machining features are listed in the **PASCAM Bea** machining-tree. CAM features consist of general and postprocessor specific CNC-data (i.e. GTR).

The order of machining operations can be changed easily by moving the machining features in the tree. Every machining feature can be suppressed manually, as well as by equation.

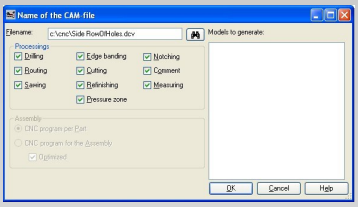
All manufacturing parameters can be added with geometrical or material relations by equations.

Use the manufacturing capabilities of **PASCAM Bea** the optimum way in your company:

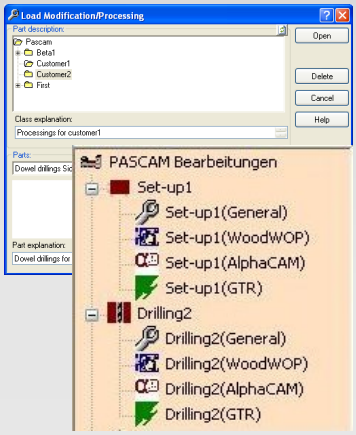
- All drilling-, routing-, milling-, sawing- and gluing machining features are easily generated for woodworking CNC machines by **PASCAM Bea**; many special machining strategies are also included
- Simple selection of the reference geometry in the SolidWorks®-model
- Highly efficient integration in **PASCAM WoodWorks** by means of Modification/Processing with optional automatic generation of CAM data → both geometrical and technological data are generated
- Full control of all machining parameters via dimensional equations, material data-equations or based on tool data
- Transparent machining parameters, visible for editing before CNC-data generation
- Optional toolpath simulation with user defined drill banks and router tools to verify the correct machining strategies and sequences
- Automatic import of Homag CNC-machine data (other machines by request)

Efficient and error free CNC machining

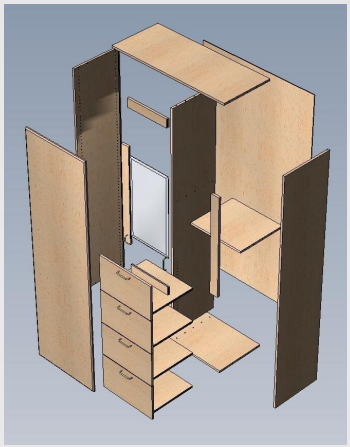
A CAM-tool for all machining conditions ...



User-driven CAM file generation with simple dialogs



Optimum interaction with **PASCAM WoodWorks**



Automatic separation of the assembly up to the part level

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Manufacturing features for woodworking CNC machines

The following **PASCAM Bea** machining features are available to control almost any modern CNC machining center:

Drilling:
- Optional automatic drill hole recognition and automatic combination of similar drillings with one mouse click
- Automatic update of hole depth and diameter
- Horizontal, vertical and space drillings

Routing / Milling:
- Fully associative to SolidWorks® geometry and depth
- Automatic geometry tracking possible
- Automatic update of the geometry and depth
- Horizontal, vertical and space routing

Sawing:
- Prescoring capability
- Automatic detection of groove-geometry
- Horizontal, vertical and groove sawing

Set-up:
- Zero point, X,Y,Z coordinates freely definable
- CNC-program linked to flip operations, machine pause for operator input
- Comments linked to material data

Notching :
- Distance definable from vertex point or reference edge
- Automatic C-angle calculation

NC New:
- Modification of NC parameters
- Automatic generation of NC code, geometrical separation

Measuring:
- Automatic calculation of measuring probe on surface
- Input of measurement differential in NC code
- Support of tappet or cross probes

Comment:
- Connected to 3D-model file properties
- Optional output as CNC, control or graphical comment

Your benefits:
- Fast, simple and error free generation of CNC machining strategies
- Modifications can be accomplished at a central place
- Transfer of tool data from machine control possible

Benefiting from manufacturing features

High operational safety due to definite and distinct setting of machining strategies

Quick survey of all machining sequences, quick reordering by Drag&Drop, optional suppressing of toolpaths before export

Full associativity enabling automatic adoption of geometrical or material modifications

Flexible adaptation of the CNC-programming to your specific manufacturing conditions by user-defined machining templates

Excellent control over parametric constructions and manufacturing processes

No meta-descriptions necessary - all information is available to CNC-program-generation

Efficient use of the 3D-model - no pseudo 3D layer -technique

Optional use of auxiliary and/ or temporary construction geometry

Nearly all parameters controllable via fixed values or equations

Postprocessor specific parameter specification enabling the use of multiple CNC machines

Optional setting of default-parameters for every manufacturing feature

Distinct separation of geometry information and manufacturing information

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Manufacturing features for CNC-processing centers

The following additional machining features are available to create comprehensive machining strategies on woodworking CNC processing centers:

Edgebanding:
- Loads glue-data from Homag-CNC-machining centers
- Fully automatic edgebanding with GTR-technology data base
- Edge thickness transferable from material data of **PASCAM WoodWorks**
- Also usable for t-molds

End-Cutting:
- Automatic C-angle calculation for edgebanding cut
- Distance to edges freely definable

Trimming:
- Flush trimming of edgebanding by trimmer or scraper
- Number and sequence of depth cuts freely definable
- Z-value definable

Pressure zone:
- Specialized for gluing edges in door manufacturing
- Heating capacity freely definable
- Z-value definable

Your benefits:
- Simplified and flexible programming for edgebanding
- Outstanding control of all glue parameters and edgebanding processes
- Design/Construction with finished geometry, manufacturing with manufacturing geometry
- Transfer of edge information from the material data, added by **PASCAM WoodWorks**
- **PASCAM WoodBatch** enables the data preparation directly at the machine with automatic NC code generation
- Full control of technology parameters at any time
- Optional subsequent last-minute generation of CNC programs at the CNC machining center, with the most up to date machine data available

Flexible manufacturing based on feature-technology

Enabling independent generation of geometrical and manufacturing data

Manufacturing features can be generated automatically, when applying geometry features

Geometry features can be processed using different manufacturing features

Different geometry features can be processed by a single manufacturing feature

Controlled calculation of parameters by equations and relations

CAM file generation based on the SolidWorks® assembly, enabling the extraction of safe and reliable manufacturing data for true-shaped nesting, as well as easy fault checking in the 3D-model

True-shape nesting with small part threshold nested in the center of the sheet. Option of bridges and onion skin.

System requirements:
- SolidWorks 2013 or later
- Windows 7 or later (64-bit)

Sales partner:

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