

HOMAG Group software for processing centers



On the road to success with software from the HOMAG Group

Choose from a wide range of software modules to find the optimum configuration for your requirements. A trial version of the different applications can be found at our web site www.woodWOP-forum.com under **Download > Download a trial version.**

Advantages include:

- Complete solutions for integrating the machine into the production process
- Investment security thanks to downwardly compatible development
- Coordinated modules



Licence protection

The HOMAG Group software is licence protected

Single workplace licence

In case of single licences every user gets one licence for his/her workplace.

If a further workplace is to be established, a further licence must be purchased.



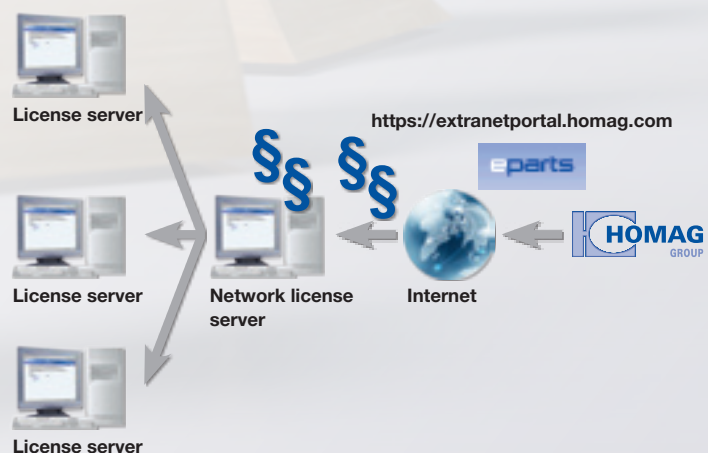
Floating licence (network)

With floating licences the server manages the software licences for several users in one network.

For example, the software can be installed on six computers in the customer's network, while the licence only allows three simultaneous operators.

If, for example, a fourth user wishes to log on, he gets the message that only three users are allowed simultaneously and that he cannot use the software.

However, if one user exits the software, this licence is available again.





woodWOP

goes 3D

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The CNC programming system of the HOMAG Group

woodWOP is the CNC programming system of the HOMAG Group. The large graphics area with a three-dimensional view of the workpiece is the centerpiece of the innovative surface. Routing, drilling or sawing can quickly and easily be programmed by entering the machining parameters and displayed realistically in the graphics area. This guarantees highest programming safety and permanent control during program generation.

Your benefits

- Higher programming accuracy due to 3D graphics of workpieces, machining and clamping aids.
- Very easy to operate due to the new design of the user interface, e. g. individually adjustable windows, multiscreen ability, language-neutral input masks, help images etc.



In the web:

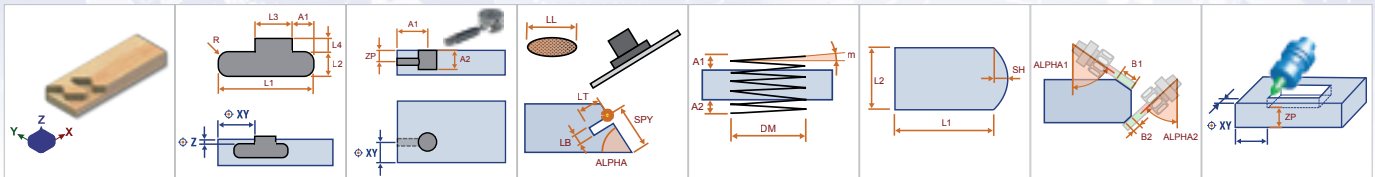
Worldwide largest forum regarding woodWOP:

www.woodWOP-Forum.com

Free Download of woodWOP-components:

www.homag.com

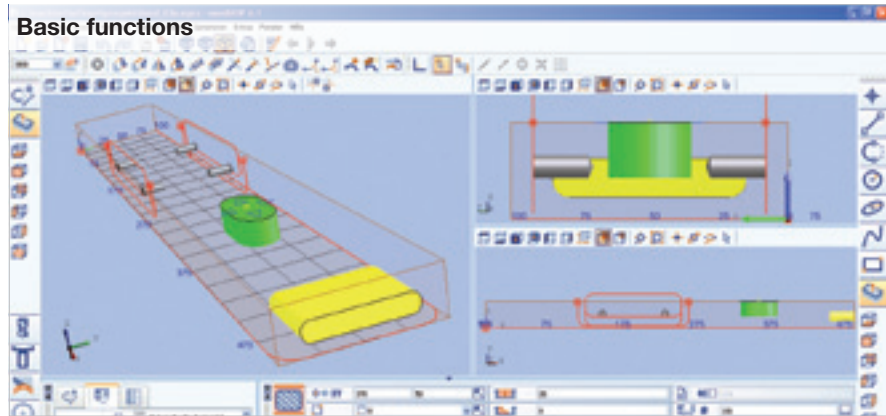
Examples from the component library



Basic functions

A large selection of standard processing operations such as drilling, sawing grooves or pocket milling offer an ideal basis for fast, reliable programming.

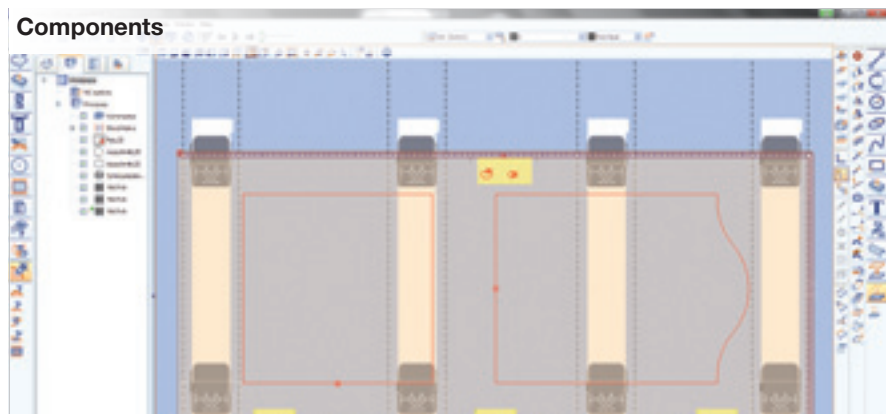
Basic functions



Components

Customers can use components to program their own processing operations and save them in woodWOP. These are integrated into an existing program at the click of a mouse. On our website there are several components available for free download.

Components



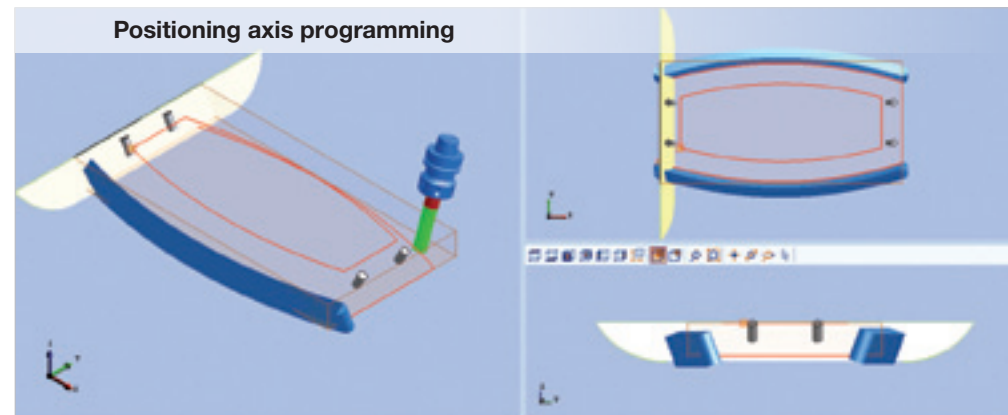


Positioning axis programming

The fifth axis can be simply programmed in woodWOP as a positioning axis. Tool preview and processing path preview simplify the programming process and lend assurance to the programmer.

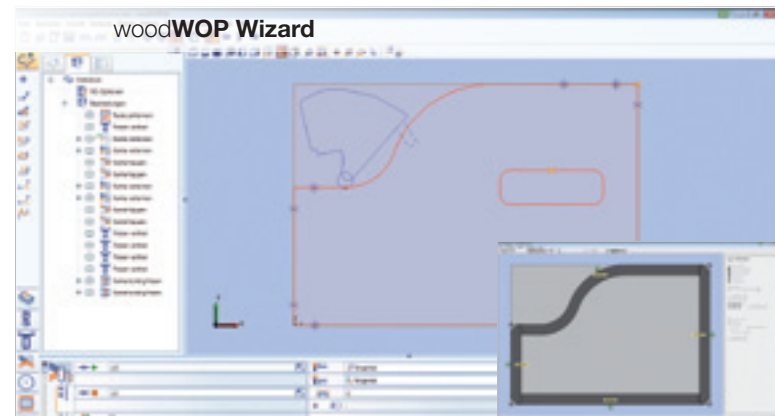
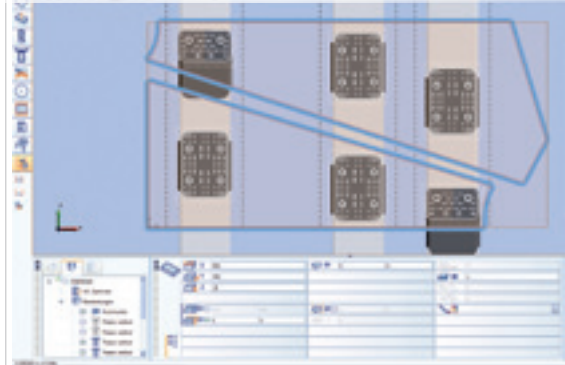
Suction cup suggestion

The integrated suction cup suggestion feature automatically calculates the position of clamps depending on the programmed processing operation.



Positioning axis programming

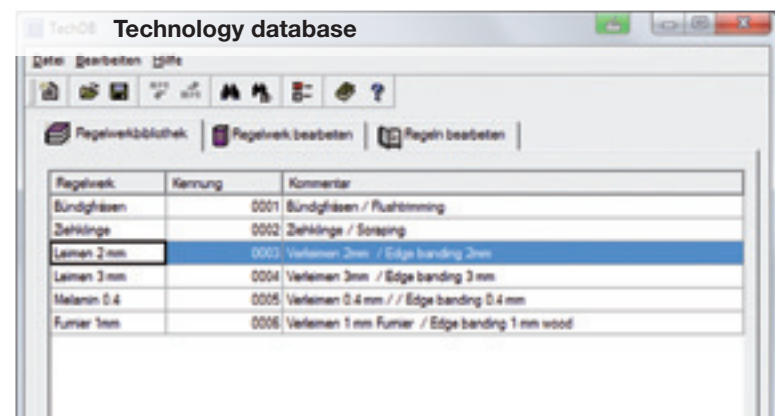
Suction cup suggestion



woodWOP Wizard

woodWOP Wizard

The woodWOP Wizard allows all processing operations for edge banding to be automatically generated at the press of a button. An edging suggestion is generated on the basis of the specific contour. This can be subsequently edited and adapted. The result is displayed directly in woodWOP.



Technology database

Technology database

Process parameters are automatically changed and the woodWOP program adjusted depending on the workpiece contour. E.g. 2 mm PVC edge: If the radius is smaller than 30 mm, then reduce feed and switch on heating nozzle.



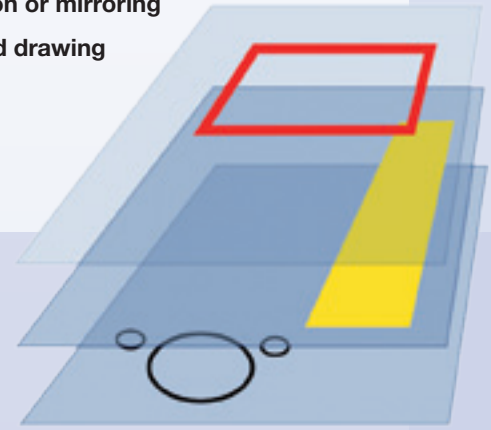
woodWOP CAD-Plugin

Integrated CAD functions for woodWOP

Using the CAD plugin, contours can be quickly and conveniently created.

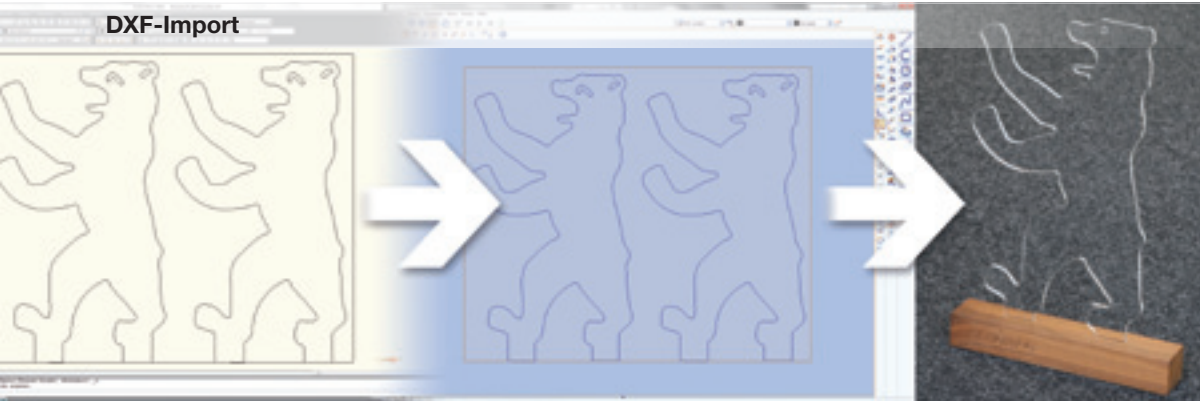
Interactive lines, arcs, circles, ellipses and splines can be drawn.

A wide selection of editing functions such as trimming, extension or mirroring are available. A contour tracking function converts all generated drawing elements into a continuous contour line.



Your benefits

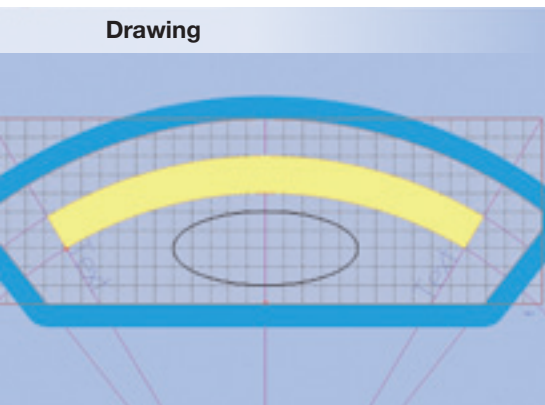
- Directly integrated in the woodWOP user interface
- Intuitive operation and fast familiarization with an identical look & feel
- Help in construction by input assistant



DXF-Import

DXF-Import

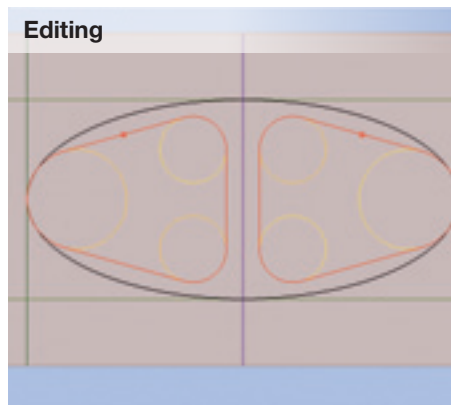
Already existing CAD drawings in DXF format can be read in and processed directly. A special layer allocation function is not required.



Drawing

Drawing

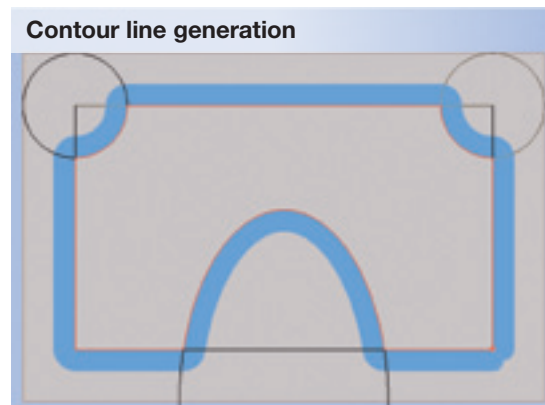
- Lines, arcs, circles
- Ellipses, elliptical arcs
- Splines
- Rectangles, n-cornered



Editing

Editing

- Displacement, rotation, mirroring, scaling
- Multiple copying and displacement/rotation
- Trimming, extension, splitting, rounding, chamfering
- Displacement



Contour line generation

Contour line generation

By selecting a starting point and specifying a direction, individual CAD elements are automatically connected to create a cohesive woodWOP contour line. At intersection points, the operator decides further progress by interactively selecting the elements in the graph.

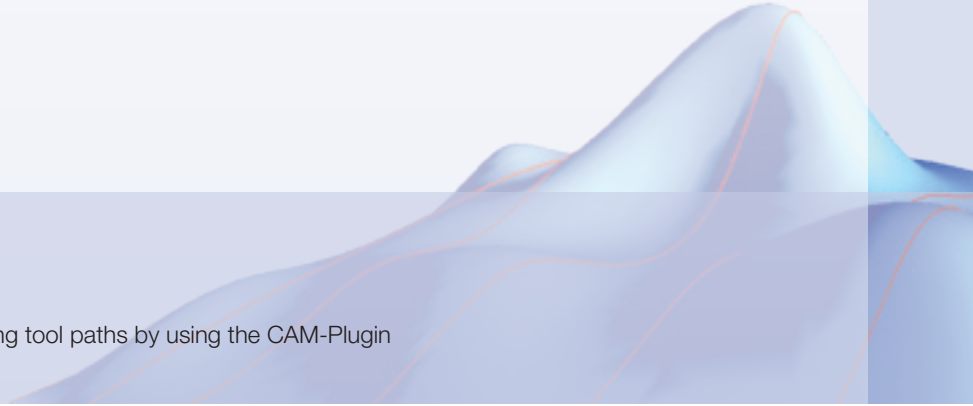


3D-CAD construction direktly in woodWOP

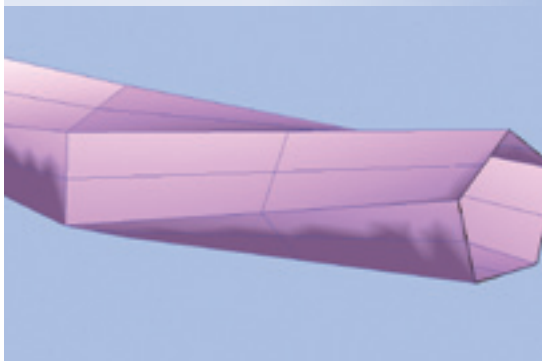
The design possibilities are extended by 3D-CAD functions. The operator has got the opportunity to create 3D areas in a simple way or to open completed 3D-models directly in woodWOP.

Your benefits

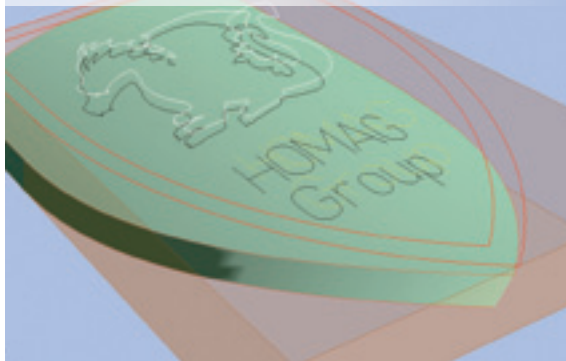
- New possibilities in product design
- Clear presentation of complex 3D objects
- Programming of 3-, 4- and 5-axis interpolating tool paths by using the CAM-Plugin



Design possibilities



Projection



Design possibilities

Construction of surfaces by cross-sections, guiding lines, limits, rotation, extrusion, etc.

Projection

Projection of geometry elements and lettering on 3D surfaces

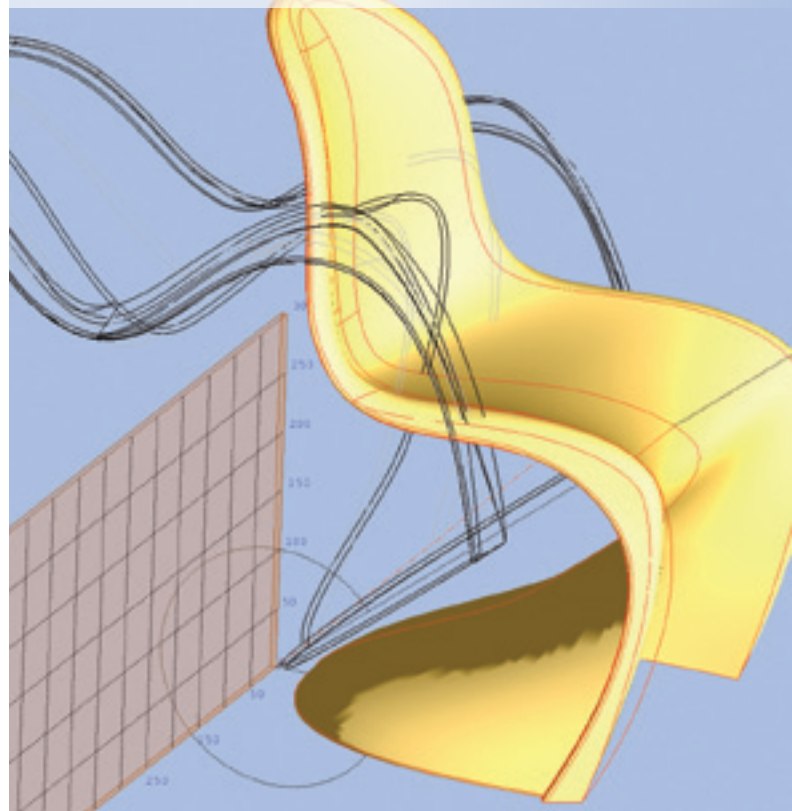
Import of 3D models



Import of 3D models

Import of 3D-CAD drawings as *.igs, *.stp or *.dxf (3D) file format

Editing of 3D objects



Editing of 3D objects

- 3D-rotating, 3D-mirroring, 3D-scaling
- Trimming, extending, rounding



woodWOP CAM-Plugin basic

Processing of 3D-surfaces with woodWOP

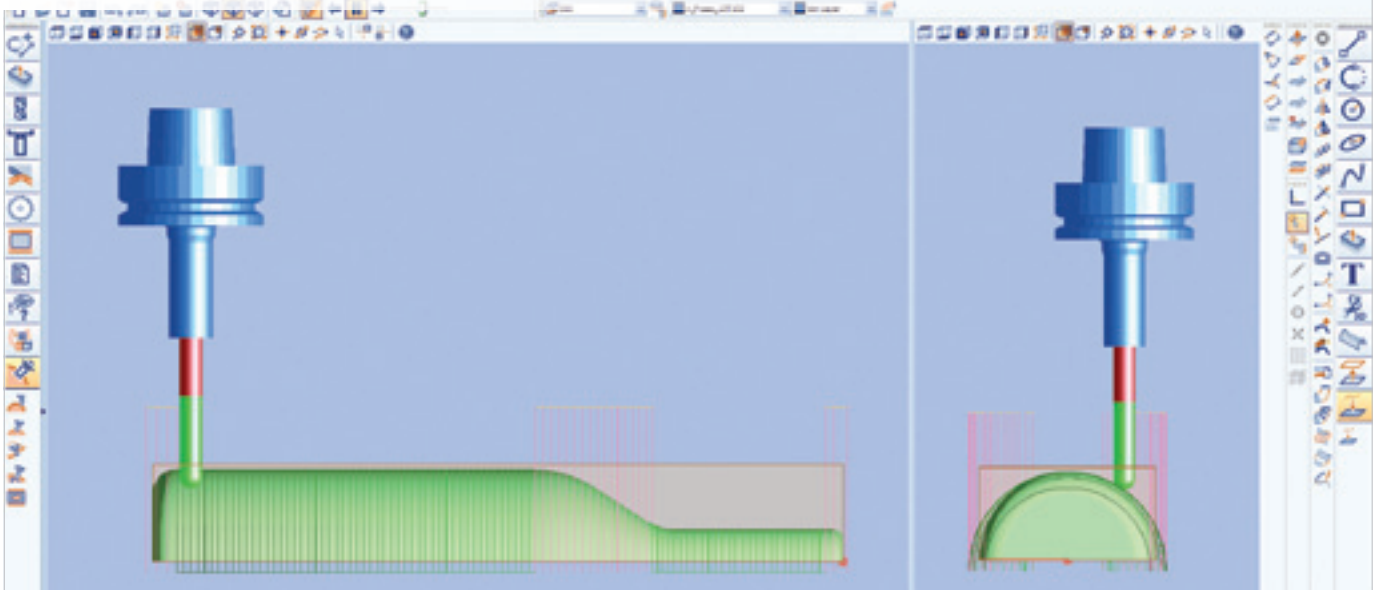
With the woodWOP CAM-Plugin the HOMAG Group AG heralds a new age in machineoriented programming. When in former times the router was programmed via contour elements, the CAM-Plugin actually allows to select a surface according to which the software then automatically calculates the required paths.

The CAM-Plugin completes the function range and enlarges woodWOP to a fully-fledged CAD/CAM-system within 3D-surfaces can be processed in a 3-axis way.

Your benefits

- Directly integrated in the woodWOP user interface
- Intuitive operation and fast familiarization with an identical look & feel
- Easy entry for 3D programming
- Already applicable for 3-axis machines

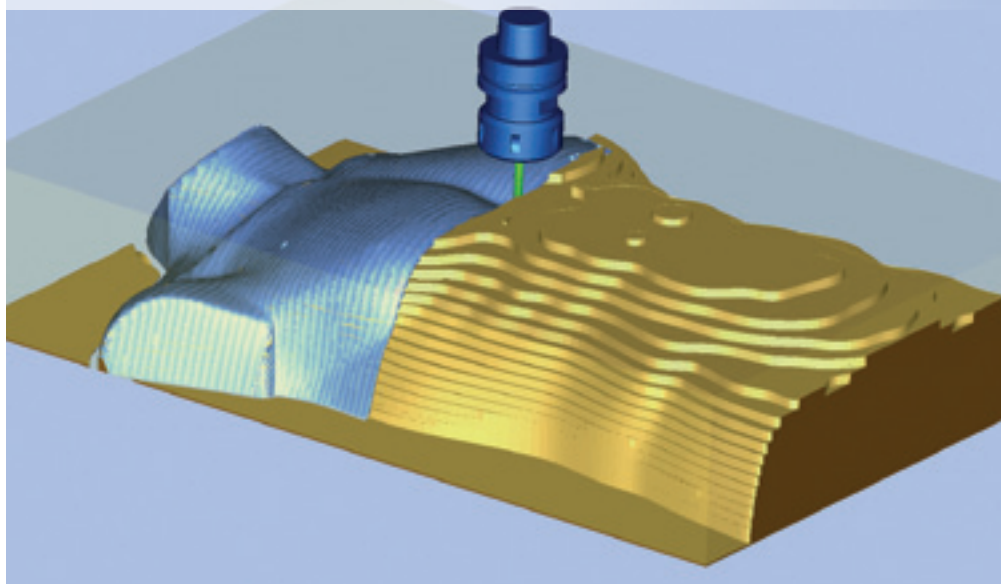
3-axis processing of a 3D-object



3D-roughing

- Programming by selection of the surface that should be processed
- Automatic calculation of the tool paths
- Different routing strategies for vertical 3-axis routing
- Different approach and retract modes

3D-roughing





Pocket-island trimming

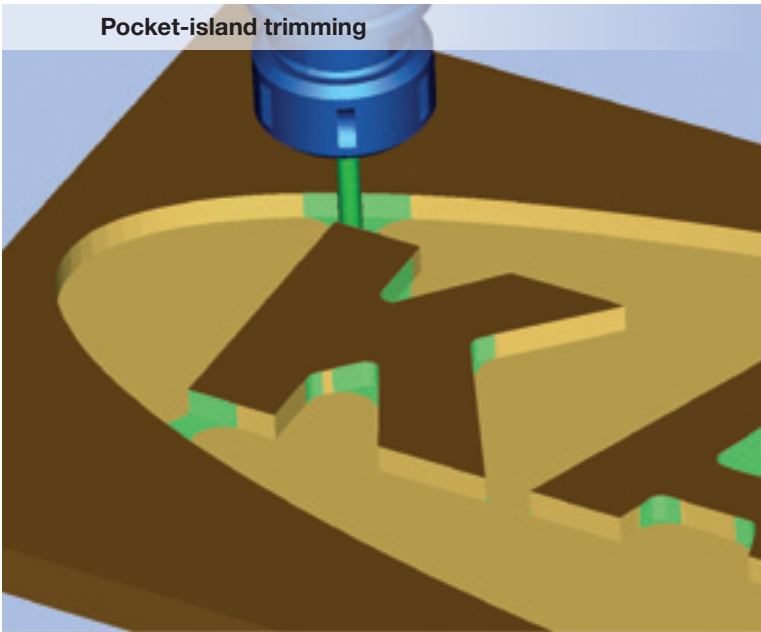
- Removing material inside a pocket
- Remaining material of internal elements („islands“)
- Residual material recognition, i.e. with the second tool only the material which the first tool was unable to remove is finish trimmed



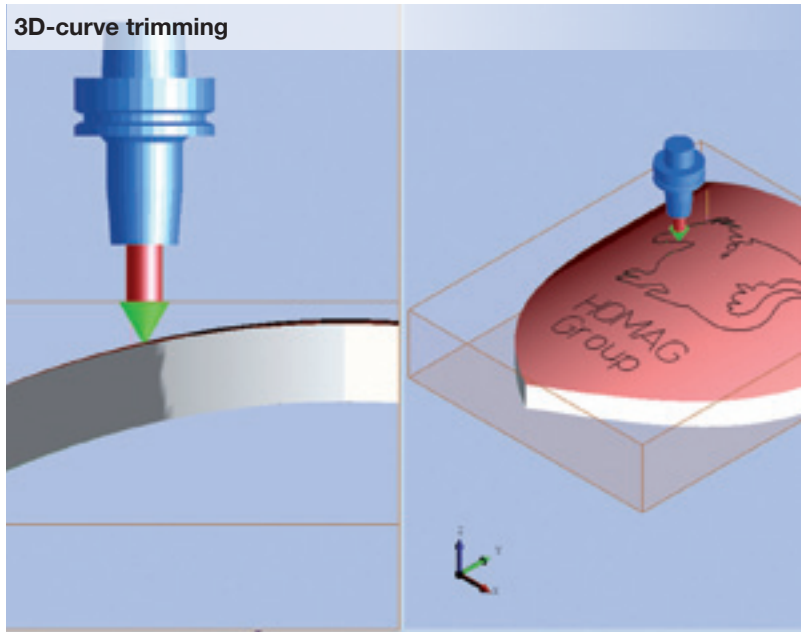
3D-curve trimming

- Trimming 3D lines
- Engraving and text on curved surfaces
- Vertical orientation of the cutter (3 axis engraving)

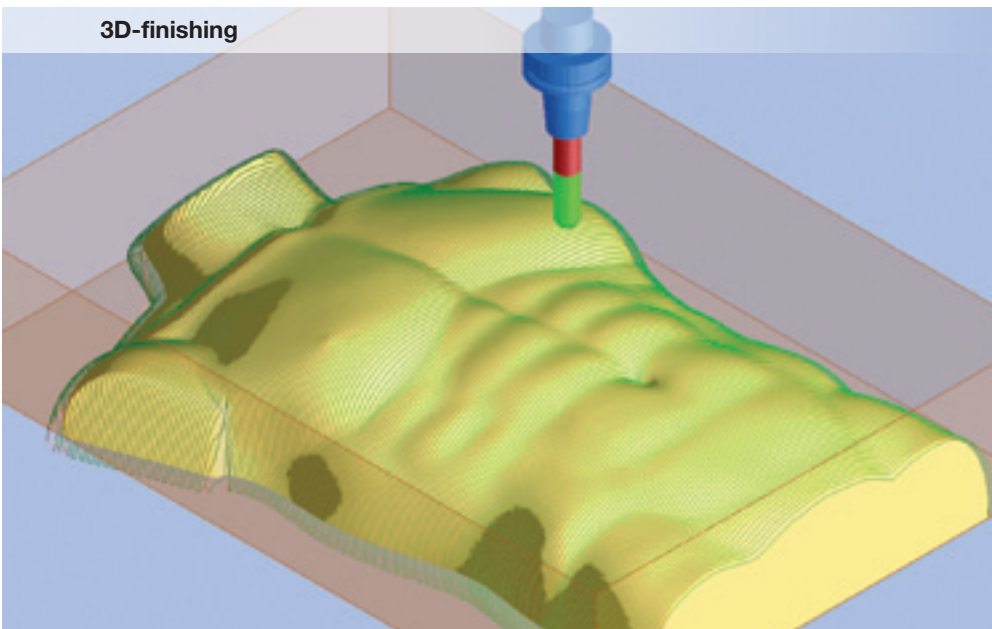
Pocket-island trimming



3D-curve trimming



3D-finishing



3D-finishing

- Programming by selection of the surface that should be processed
- Automatic calculation of the tool paths
- Different routing strategies for vertical 3-axis routing
- Different approach and retract modes



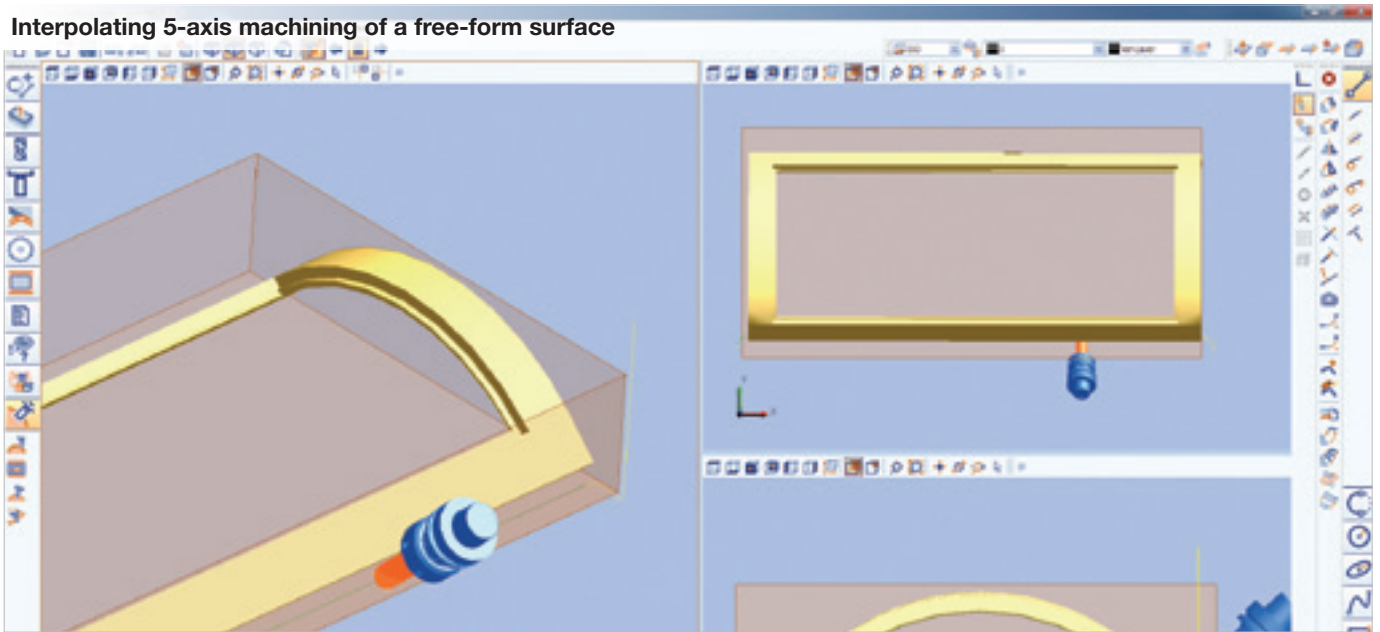
Processing of 3D-surfaces with woodWOP

The CAM-Plugin completes the function range and enlarges woodWOP to a fully-fledged CAD/CAM-system within 3D-surfaces can be processed in a 3-, 4- and interpolating 5-axis way.

Your benefits

- Directly integrated in the woodWOP user interface
- Intuitive operation and fast familiarization with an identical look & feel
- Easy entry for 3D programming
- Generation of toolpaths from the 3-axis machining up to interpolating 5-axis machining

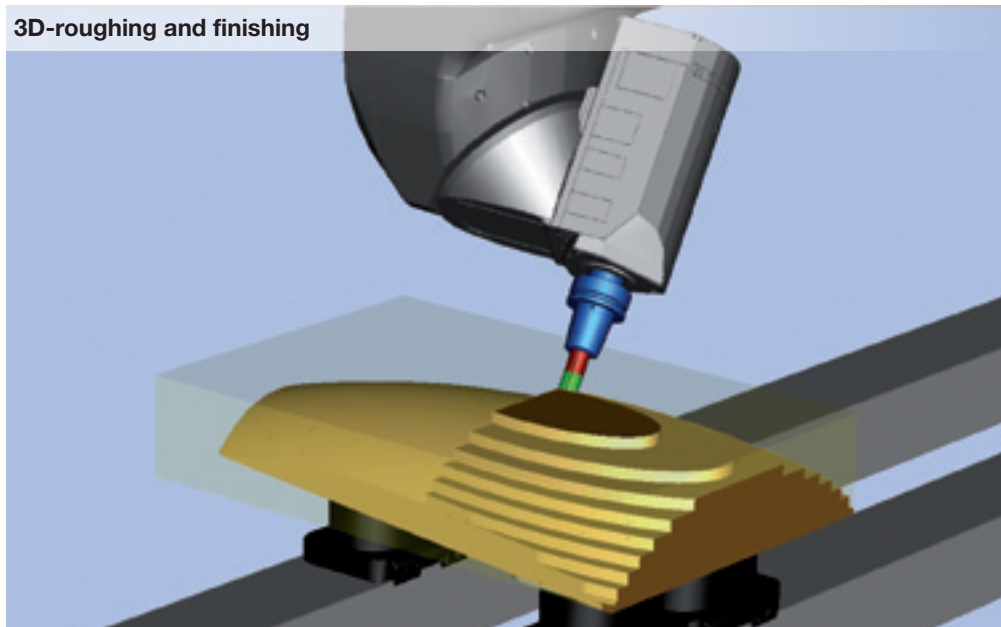
Interpolating 5-axis machining of a free-form surface



3D-roughing and finishing

- Programming by selection of the surface that should be processed
- Automatic calculation of the tool paths
- Different routing strategies (3-, 4-, 5-axis)
- Different approach and retract modes

3D-roughing and finishing





Pocket-island trimming

- Removing material inside pockets on any working levels
- Remaining material of internal elements („islands“)
- Residual material recognition: with the second tool only the material is milled which could not be re-moved from the first tool



3D-curve trimming

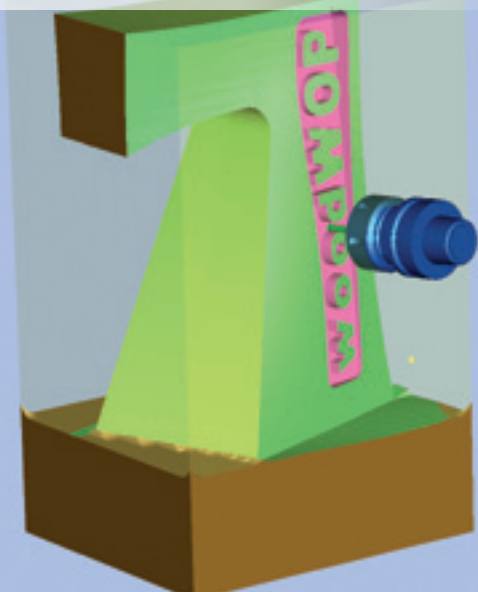
- Trimming of 3D lines
- Engraving of text objects and geometries on curved surfaces
- Automatic orientation of the tool perpendicular to the surface



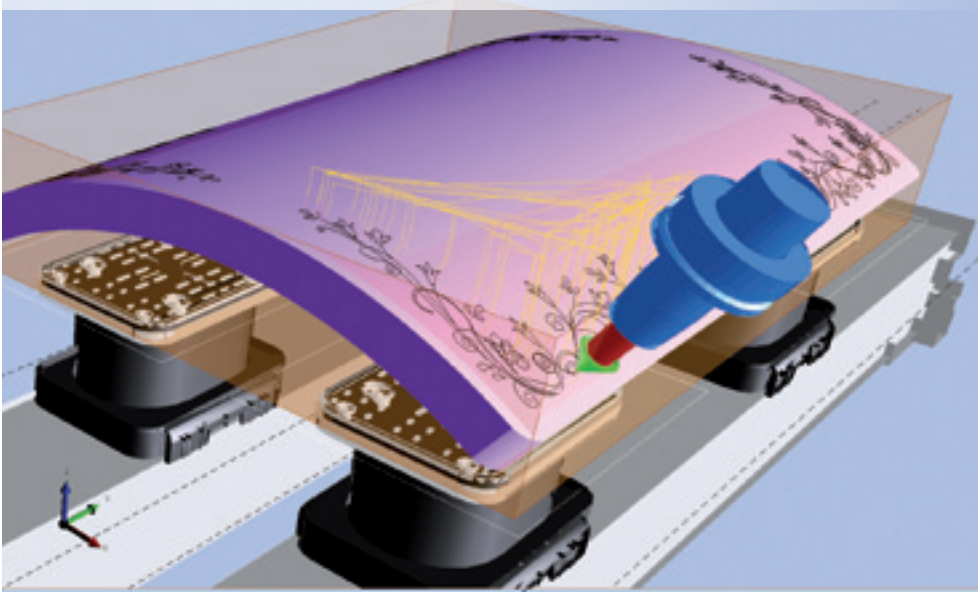
3D-peripheral milling

- Tool orientation with two guiding lines or using a surface
- Selection of different strategies for corner processing in any orientation

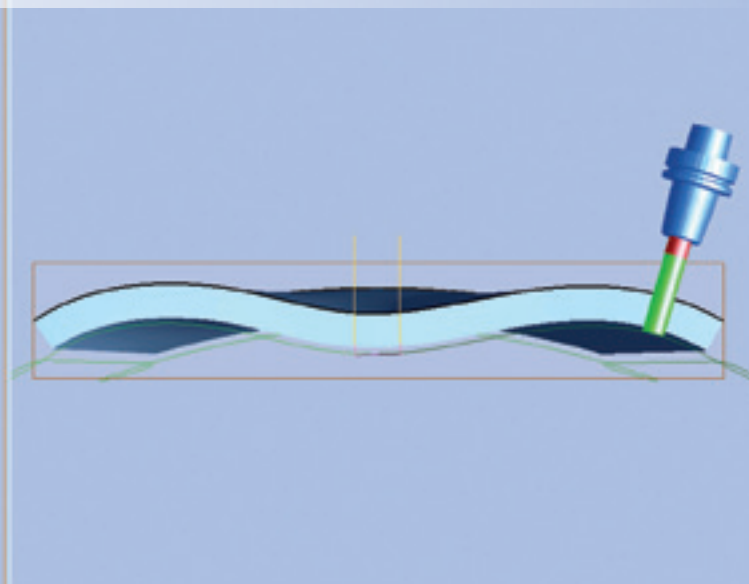
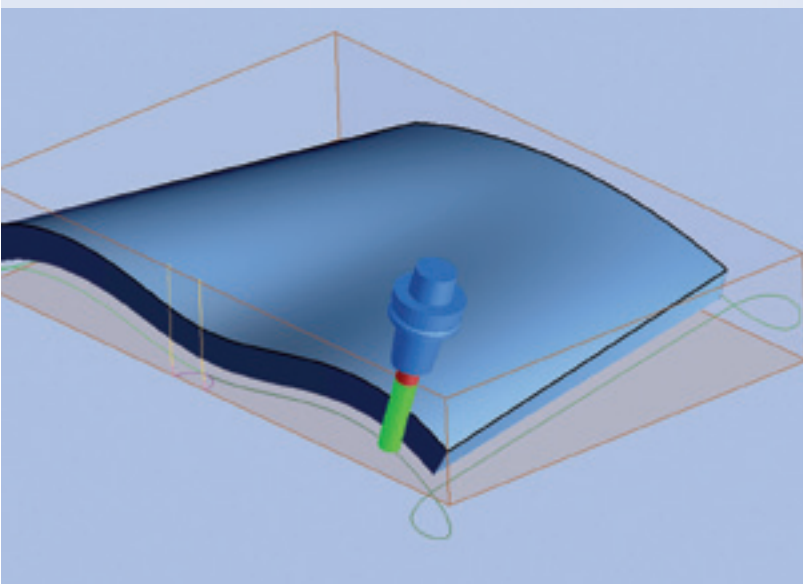
Pocket-island trimming



3D-curve trimming



3D-peripheral milling

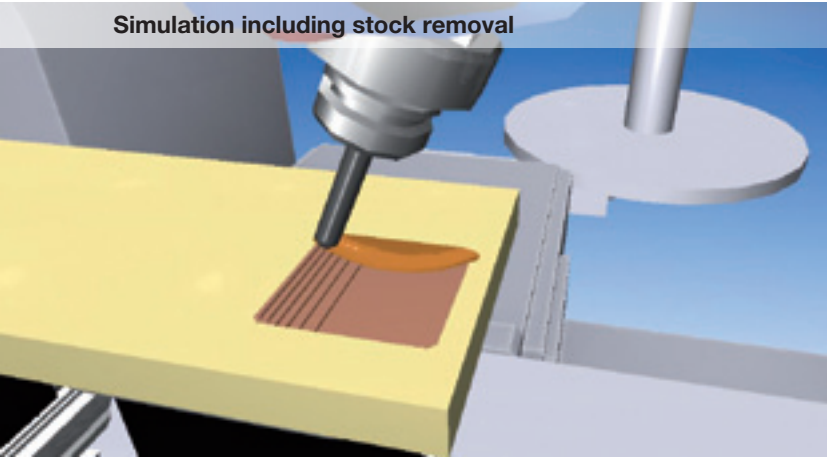


Simulation and time calculation

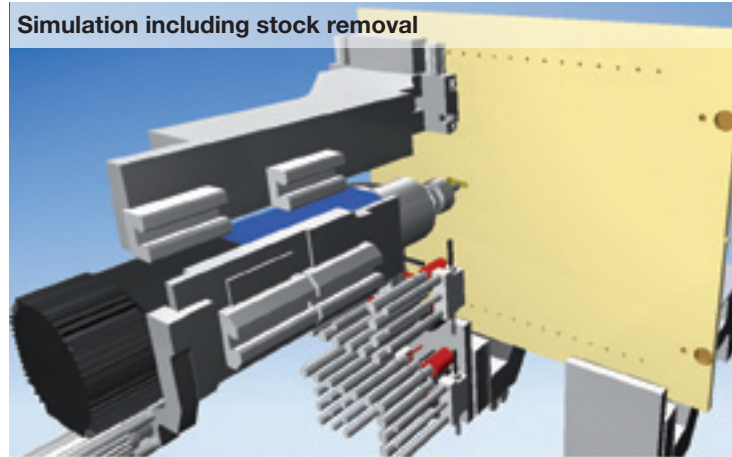
Software for graphic review of CNC programs

The programs for simulation and time calculation enable machining processes to be simulated, calculated and checked for errors already in the office.

Simulation including stock removal



Simulation including stock removal



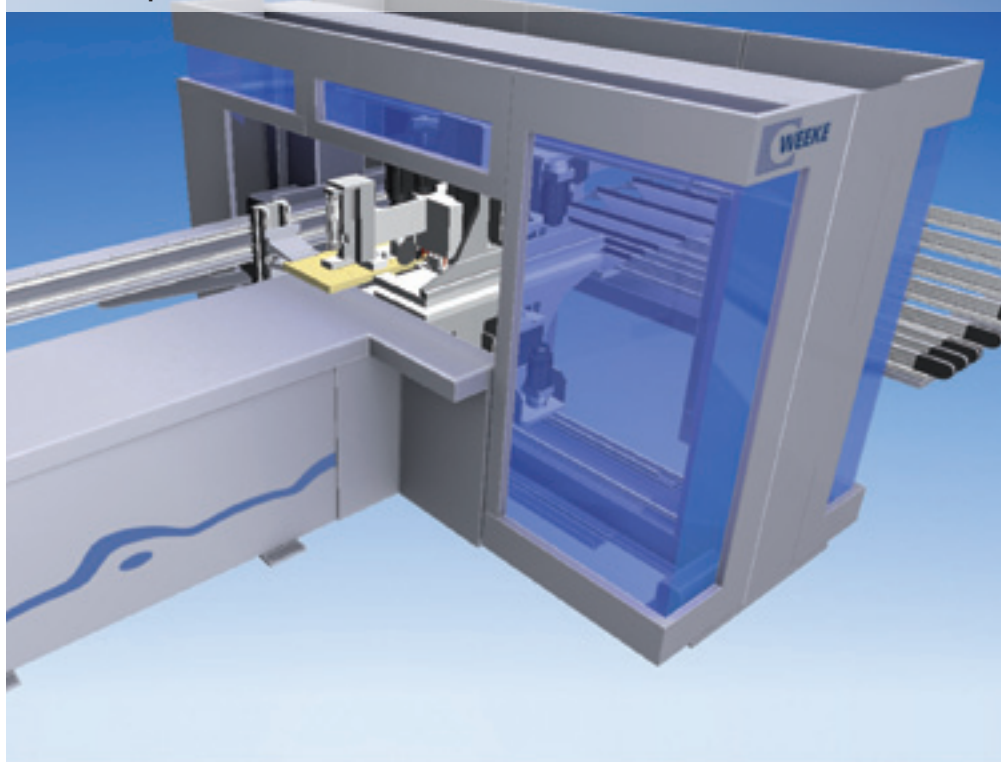
3D CNC Simulator | For WEEKE machines only

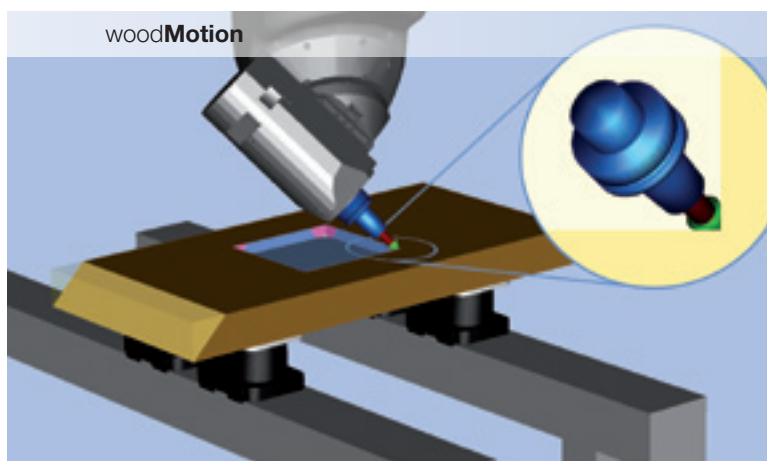
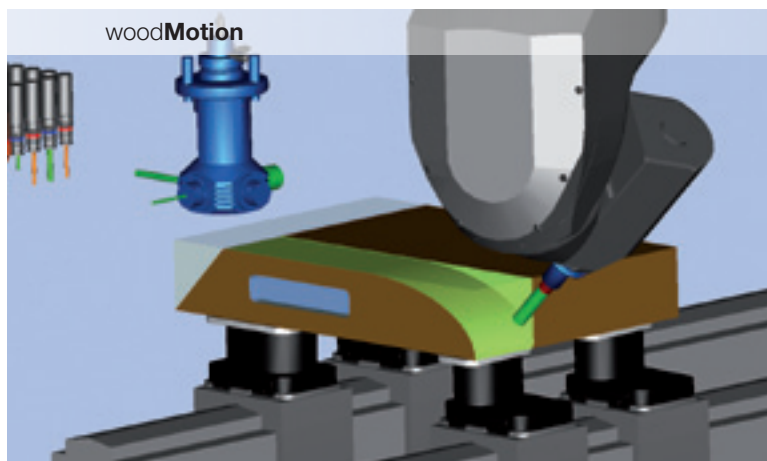
An automatic routine determines the machine configuration and tools fitted. The positions of suction cups and modules in the NC program are displayed and checked for collisions in the case of machining steps completely through the board.

Your benefits

- The machining sequence can be simulated, optimized and pre-calculated already in the process planning department
- Eliminates the need for complex tests at the real machine
- Safety with a direct check of the processing sequence for collisions and program defects

Realistic depiction of the machine and tools





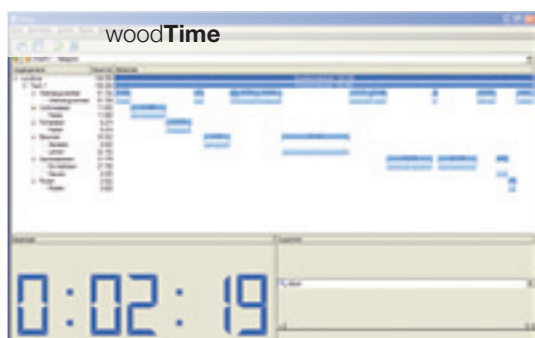
woodMotion | For HOMAG machines only

woodMotion uses the office PC to simulate work steps at the machine, and provides a graphic representation of processing operations at the workpiece. This affords the programmer the opportunity to check the processing steps in advance and detect any potential collisions between tools and clamps

The simulation is based on a virtual machine with a real CNC core actuated by means of the data of the respective customer machine.

Your benefits

- Reduction of machine running-in time due to optimum program preparation
- Simulation of 5-axis processing including material removal
- Collision control between tool and clamps
- Saving and taping function for simulations
- Various tool paths are displayed in different colors.



woodTime | For HOMAG machines only

With woodTime workpiece runtimes are simulated in real-time and displayed sorted by processing step on a workstation computer. In addition to acceleration and deceleration times, woodTime also considers complete tool change cycles as well as approach and return times.



Nesting software

Solutions for nesting of components

Nesting technology means to „nest“ workpieces in order to achieve optimum material utilization by using cutting optimization. Nesting offers the opportunity to economize significantly on materials particularly when processing a large variety of shaped parts.

Your benefits

- By combining cutting and final processing intermediate stacking of individual items is not necessary
- Material costs can be reduced and the overall processing time can be cut

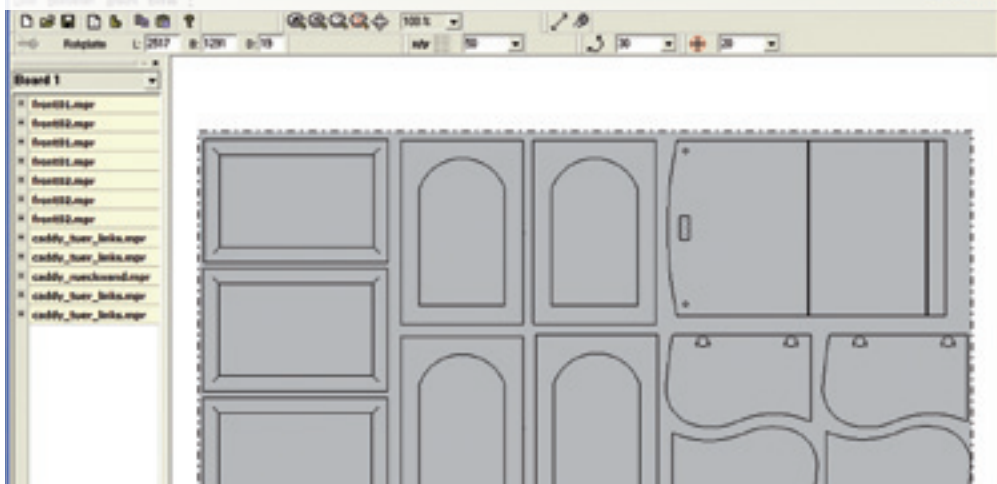
woodNest Basic

Software for manual nesting of shaped parts

woodNest Basic is an easy solution for users who occasionally want to program nests. woodWOP programs can be manually nested, positioned and rotated with a mouse.



woodNest Basic



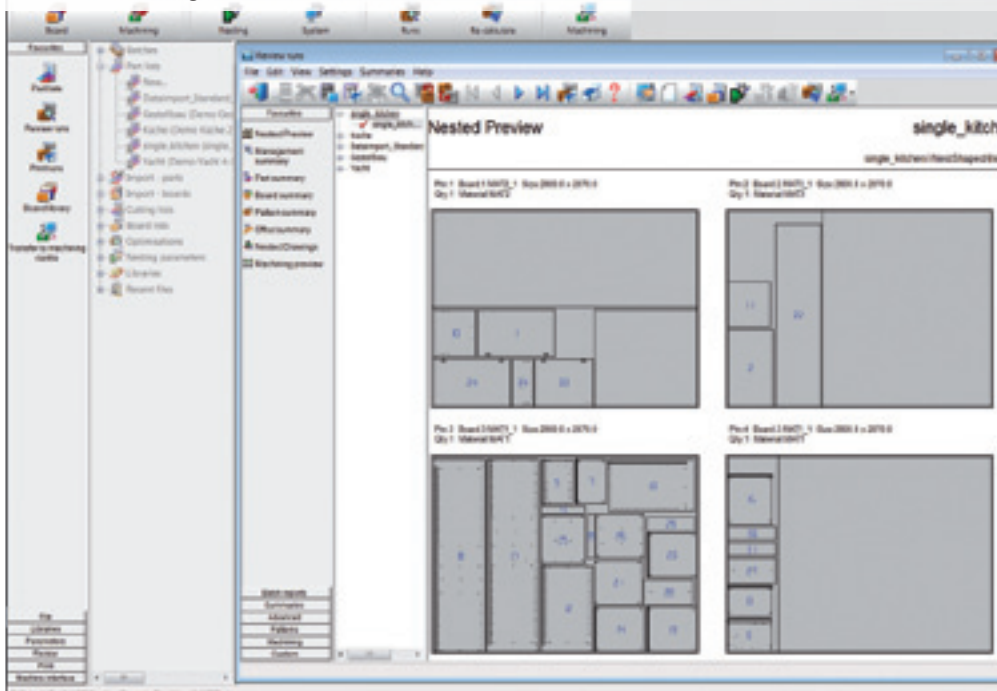
Cut Rite Nesting

Cut Rite, the optimization software of the HOMAG Group, is used for cutting boards on sawing machines as well as nesting machines. The modular structure of the software allows users already controlling their sawing machine via Cut Rite to integrate the nesting module without problems.

Highlights

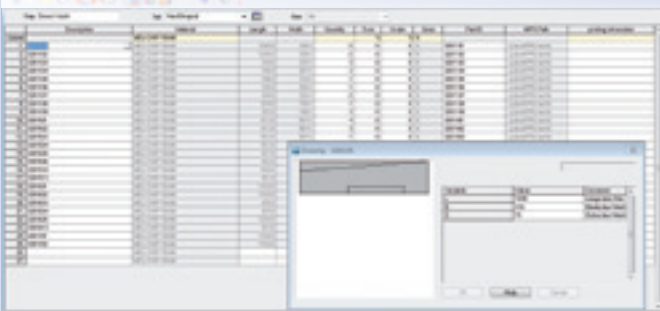
- Board library and calculation of material costs
- Labeling in the office incl. layout editor
- Additional modules can be applied optionally, e. g. for stock management

Cut Rite Nesting



Cut Rite Nesting | Functions

Cut Rite Nesting | Parts list



Cut Rite Nesting | Parts list

- Can be manually created by entering individual woodWOP-files
- Can be imported from other programmes, p.e. excel charts
- Can be optionally edited and processed
- Import of up to 50 woodWOP-variables
- The programme optimises the parts list sorted according to material or any other parameter

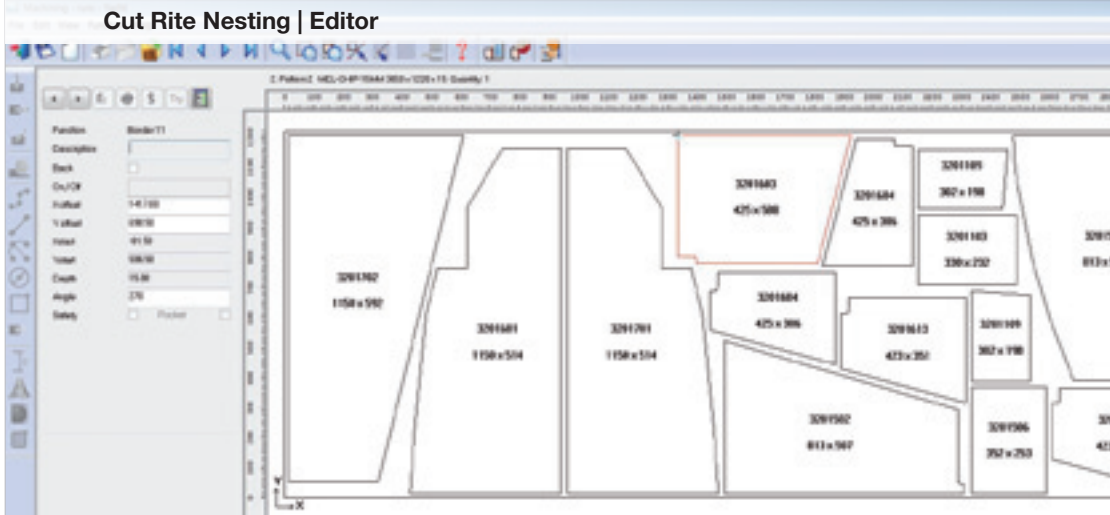
Cut Rite Nesting | Label designer



Cut Rite Nesting | Label designer

- With the integrated label designer you can create labels at your workplace and print them directly in the office
- This function does not replace the automatic printing function at the machine

Cut Rite Nesting | Editor



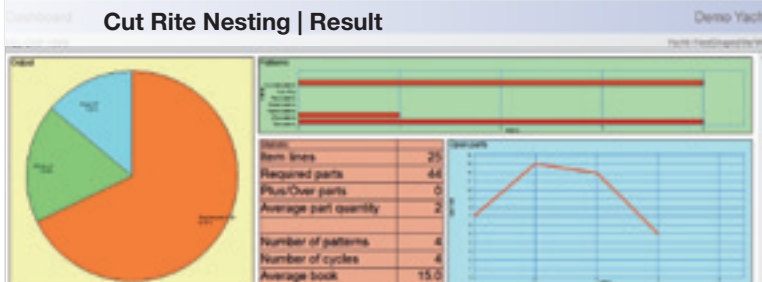
Cut Rite Nesting | Editor

As needed, the optimization result can be manually modified, e.g. adding filling parts.

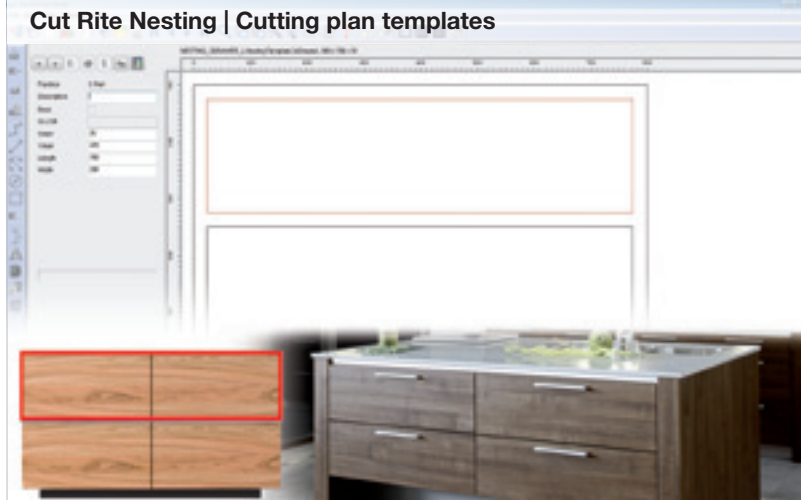
Cut Rite Nesting | Result

Material	Quantity	Area	Waste	Waste %	Waste (mm)	Waste (mm)
Material 1	100	10000	1000	10%	1000	1000
Material 2	200	20000	2000	10%	2000	2000
Material 3	300	30000	3000	10%	3000	3000
Material 4	400	40000	4000	10%	4000	4000
Material 5	500	50000	5000	10%	5000	5000
Material 6	600	60000	6000	10%	6000	6000
Material 7	700	70000	7000	10%	7000	7000
Material 8	800	80000	8000	10%	8000	8000
Material 9	900	90000	9000	10%	9000	9000
Material 10	1000	100000	10000	10%	10000	10000

Cut Rite Nesting | Result



Cut Rite Nesting | Cutting plan templates



Cut Rite Nesting | Clear structured results

Cut Rite provides a clear and structured presentation of the results of the optimization. For every optimization run several reports are issued, which can be individually configured.

Cut Rite Nesting | Cutting plan templates

It is possible to create cutting plan templates, e.g. for furniture fronts, in order to guarantee a continuous texture over several individual parts.

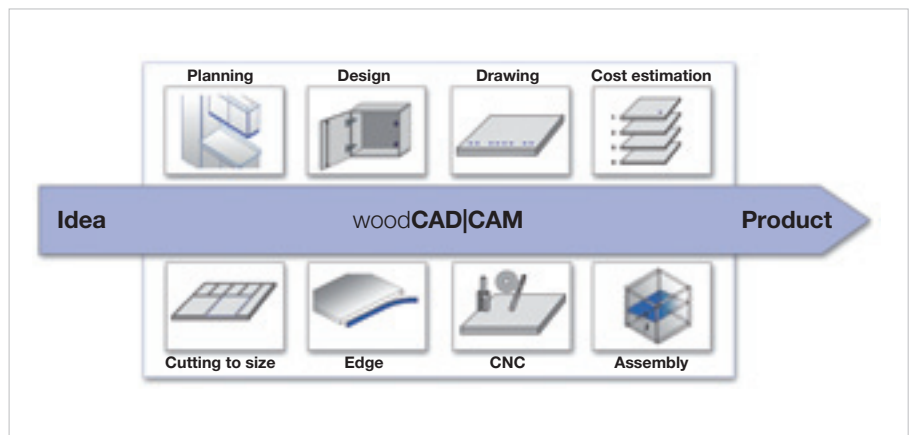
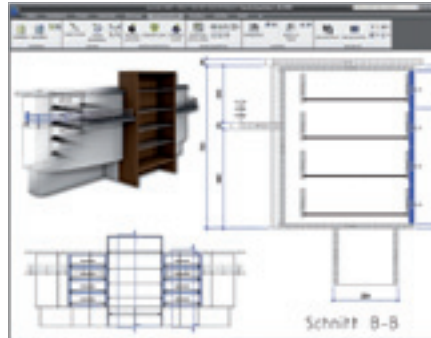
3D software for furniture and interior fittings

From the first sketch through to the end product, the woodCAD|CAM software from HOMAG eSOLUTION provides assurance throughout the order and production process in companies which use HOMAG Group machines in their production.

Save time, avoid errors, work economically: woodCAD|CAM is the seamless software solution for 3D design and production.

Your benefits

- Parametric design in 3D
- Seamless data flow in operation
- Bill of materials, cutting to size and cost estimation
- CNC data for HOMAG Group machines
- Bar code generation
- Photorealism for sales negotiations



Individual standards-based design. The ultimate in flexibility

Cohesive flow of data from the idea through to production: Designs of individual furniture items or whole room planning concepts are generated and impressively presented in no time. Details or whole assemblies can be modified, calculated and depicted. Production documents and CNC programs are available at the touch of a button immediately when the design process is complete. These are then automatically transmitted to the machine.

Machine and software working together. This is production in the modern world.

woodCAD|CAM links ultramodern machine technology and software. This generates potential for the streamlining of order processing and production. Machine-oriented software products from the HOMAG Group such as **CutRite** or wood**WOP** are seamlessly integrated. woodCAD|CAM is particularly well suited for kitchen, bathroom, living room and office furniture manufacturers as well as for interior fitters and shopfitters.

woodAssembler | woodVisio

Virtual assembly and visualization of workpieces programmed in woodWOP.

woodAssembler displays your projects in 3D and makes it possible to assemble components using the mouse. Your programs generated in woodWOP are used as the data source. Modern technology makes it possible for you to check the components virtually and in this way find errors conveniently on the PC without the need to manufacture expensive prototypes.

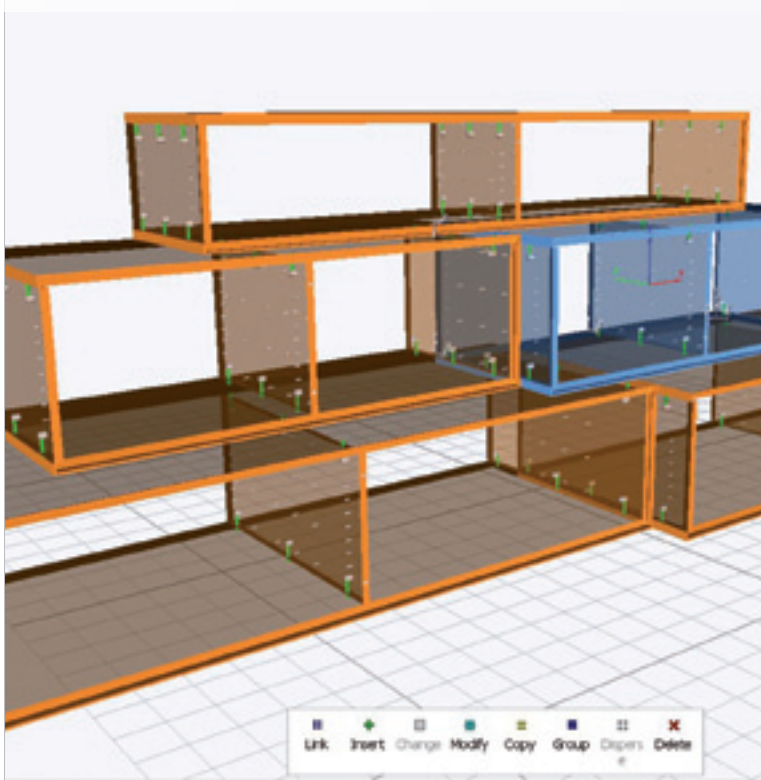
woodAssembler also imports complete objects including all hardware from the Dynalog program of hardware manufacturer Blum, and generates a woodWOP program for every component.

Access is also afforded to all the connectors and hardware contained in the Hettich catalog.

Your benefits

- Direct control over programmed components
- Cost and time savings due to elimination of the need to produce prototypes
- Particularly effective during series production or when working with high-quality materials

woodAssembler



woodAssembler: Depiction of tool profiles



woodAssembler | For WEEKE machines only

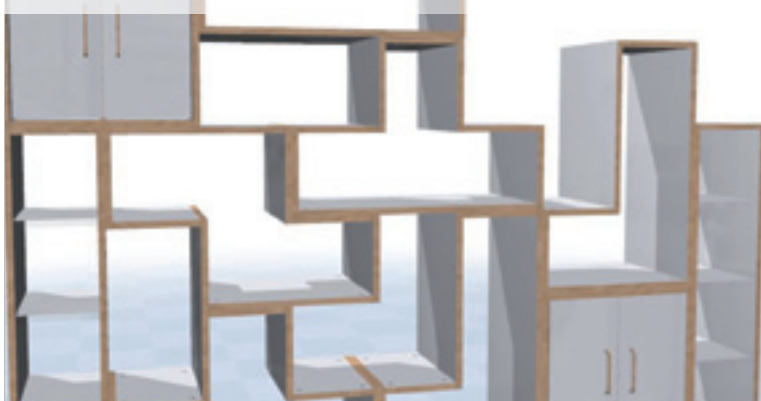
• Variable programming

Variables in woodWOP programs can be defined as global variables for a particular object. Changing these variables affects the whole of the object.

• Depiction of tool profiles

Existing tool profiles exert an effect on the workpieces in woodAssembler. This allows convenient control of programmed Z coordinates.

woodVisio



woodVisio | For WEEKE machines only

Visualizes projects from woodAssembler with rendered materials

- Realistic depiction of objects
- Saving views in bitmap files
- Material library can be extended at will
- Depiction of all components including hardware

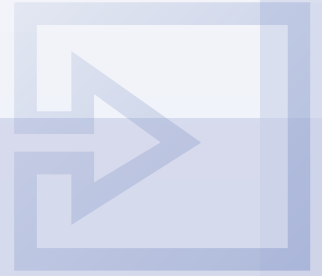


woodWOP DXF-Import



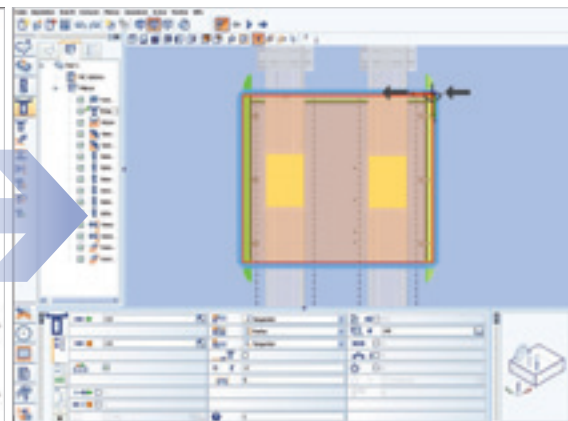
From the drawing straight into production

The widely used, independent DXF format for the exchange of CAD drawings is used as the basis for the generation of woodWOP programs. Workpieces having been drawn once can be imported into woodWOP and transferred to the machine straight away.



Your benefits

- Workpiece has to be programmed only once
- Straight from the drawing to the machine
- No reworking in woodWOP necessary



Preparation of the DXF file

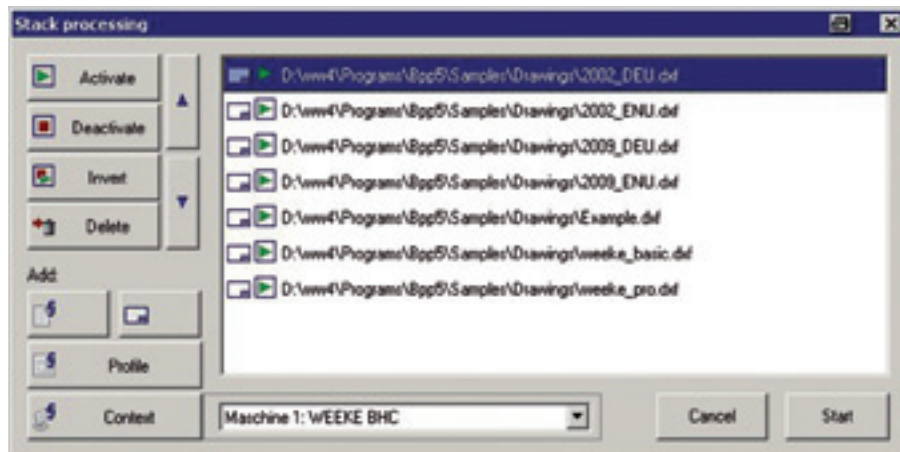
The individual layers (levels) of the drawing contain all the relevant information for the machining operations.

Conversion

With the aid of a pre-set rules, all drawing elements from the DXF files can be converted into processing operations.

Output in woodWOP

When the data is transferred, the processing operations are then automatically generated.



DXF Import Professional including stack processing

Special applications can be extended. The conversion rules can be flexibly expanded as required for each machining type. As a result, almost all possibilities can be covered by woodWOP. The stack processing feature allows any optional number of DXF files to be converted into woodWOP programs with a start process.



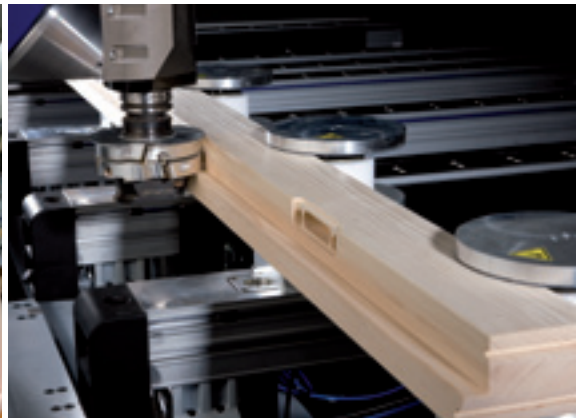
woodWindows window software

The fast start-up into the CNC window manufacturing

From the predefined entry-level package „Basic“ via the expandable modules from „Advanced“ to „Professional“ – the projecting of a complex manufacturing environment – woodWindows offers a tailored-made concept for every requirement at an optimum price-performance ratio.

Your benefits

- Safety right from the start through frequently applied system
- Minimal start-up time „Plug and Play“ by predefined master data
- Fast training through simple processes
- Smooth handling through turnkey handover with defined interfaces



Basic

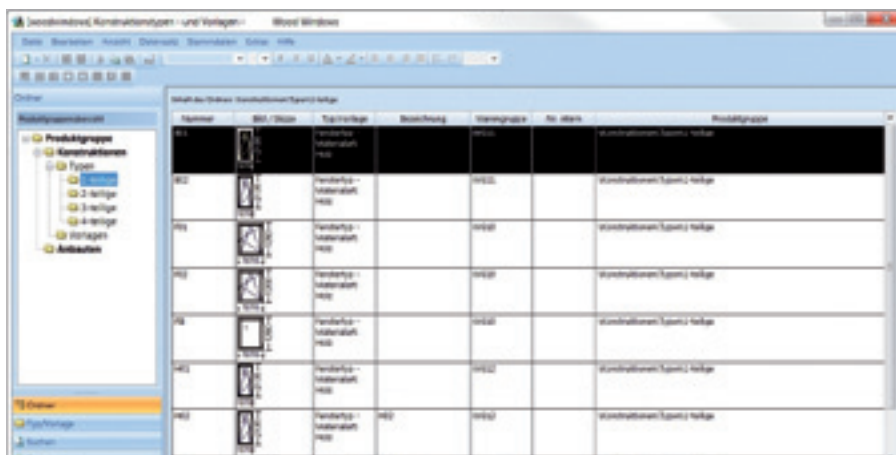
- Starter package inclusively master data for CE-certificated profile systems „climatrend“ (turnkey)
- Profiles can be changed and expanded by the customer
- Machine-oriented
- Low acquisition costs

Advanced

- Starter package inclusively master data for CE-certificated profile systems „climatrend“ (turnkey)
- Module of leading German industry software suppliers
- Functional modules expandable (such as invoicing)
- Machine-oriented

Professional

- Individual project attendance by HOMAG window and software specialists
- Project-related integration of the systems
- Integration with already existing or new industry solutions
- Individual start-up at HOMAG and on-site
- Individual KnowHow transfer
- Turnkey handover after the defined scope of service
- Individual machine optimization
- Individual scope of service





powerTouch

Many different technologies – one user interface!

powerTouch implements the HOMAG Group's new operating philosophy: Simple, standardized, ergonomic and evolutionary.

The innovative touchscreen operating concept unites design and function to create a totally new control generation.

At the focus of this solution is a large multi-touch monitor in widescreen format, which is used to control machine functions by direct touch contact. The entire user interface has been optimized for touch operation and offers an array of help and assistance functions designed to radically simplify the work experience.

Easy – Operating convenience included

- Fast overview of machine status
- Traffic light assistant helps guide the user towards readiness for production.
- Self-explanatory symbol texts and integrated help mode

Equal – All machines, a single control system

- Standardized design of the user interface
- Same operation of basic functions for all HOMAG Group machines
- Standardized operating control center for all main machine functions



Ergonomic – Hands-on technology

- Intuitive, natural touch operation of the machine
- Use of gestures such as zooming, swiping, scrolling
- New ergonomic design of the control center

Evolutionary – Ahead of its time

- Design and function united to create a totally new control generation
- Futuristic operating philosophy based on a large multitouch monitor
- Support for the operator with a new assistant system and QR codes



MMR – Machine Monitoring & Reporting

The optimum utilization of machines and plants is one of the key success factors in manufacturing processes.

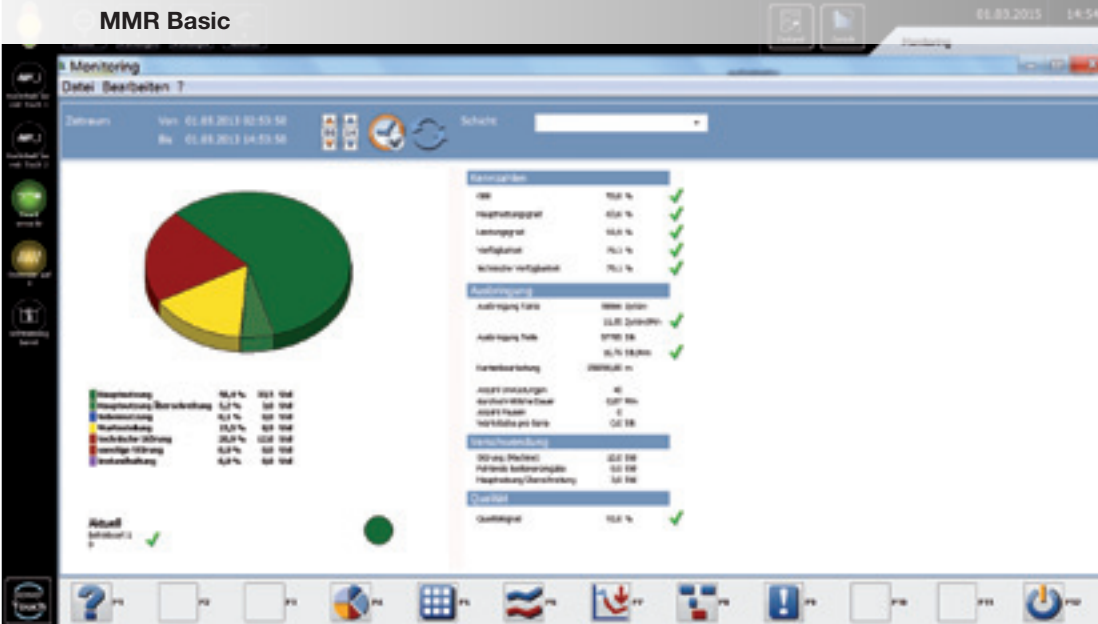
The economic potential lies in an increased output and the respective added value or in the reduction of operation times and the associated variable cost of operation. for human resources, energy, compressed air and dust extraction.

Your benefits

- Optimization of production by display of frequent error sources
- Increased production availability due to preventive maintenance measures
- More efficient machine deployment due to the transparent depiction of standard key indicators



MMR Basic



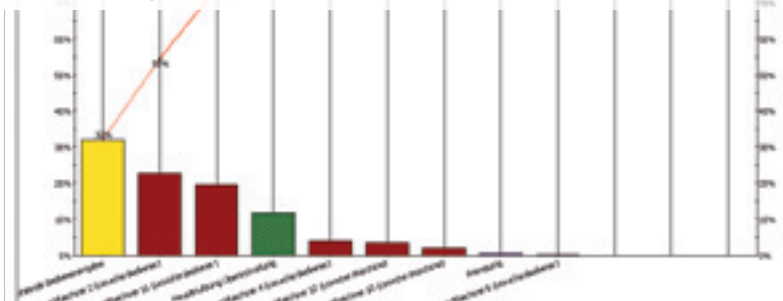
MMR Basic

- Logging of automatically justifiable statuses using the machine control system
- Logging of shift changeovers
- Evaluation of key indicators and numerical depiction at the machine control system
- Display and logging of maintenance measures

MMR Basic | Maintenance



MMR Basic | Trouble analysis

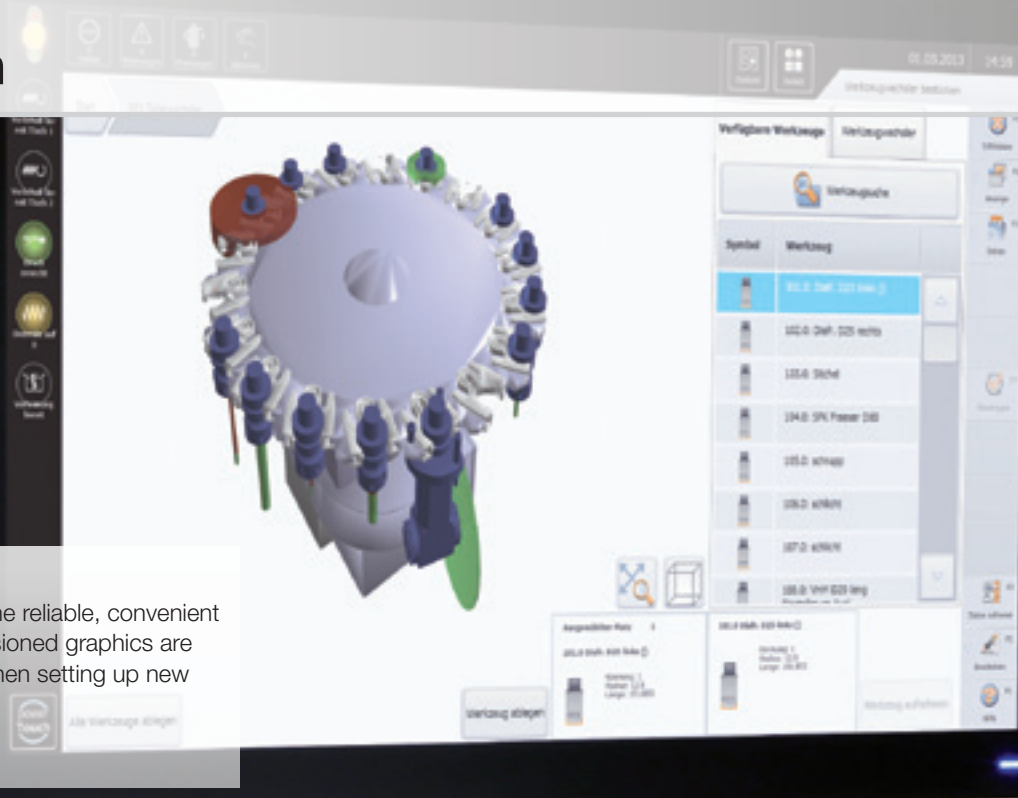


MMR Professional

- Graphic analyses in the form of Gantt, Pareto and line charts over optionally selectable time intervals
- Manual input of reasons for production disruptions
- Integrated downtime analysis with evaluation of corresponding error messages
- Link to MMR Office for central analysis in the office

MMR Office-Client

- Central evaluation in the office
- Clear evaluation of several machines in one PC



Graphic tool database

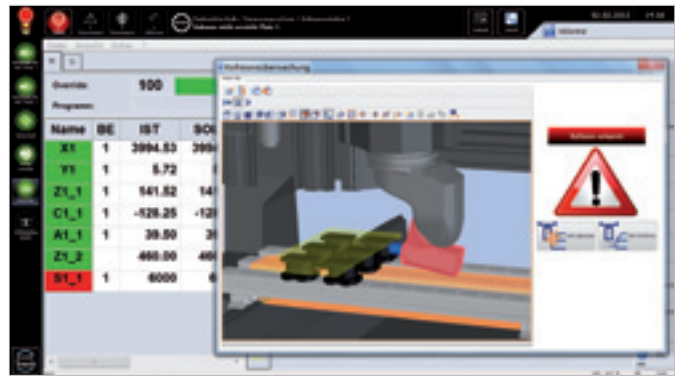
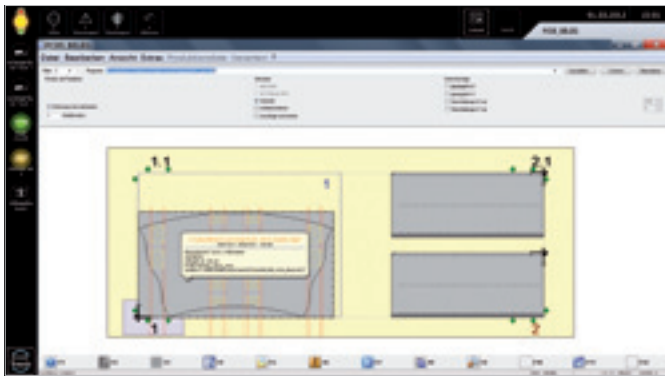
The graphic tool database editor permits the reliable, convenient input and modification of tool data. Dimensioned graphics are provided to assist the machine operator when setting up new tools and units.

Graphic station assignment

Station assignment enables the operator to specify which workpiece is to be produced in which clamping station. With graphic display of the eventual workpiece selection, the control system offers the maximum in safety and convenience.

collisionControl | For HOMAG machines only

- Automatic stop of the machine in case of an imminent crash situation
- Display of the crash situation in the form of a snapshot with collision bodies shown up in colour
- Monitoring of 5-axis processing operations and manual traversing records in manual mode



Diagnostic system woodScout

The diagnostic system woodScout provides a visual depiction of error messages and troubleshooting suggestions. The systematic location and remedy of faults are aided by helpful graphics.

Tool service life determination

The tool service life determination function is used to log and monitor tool sets. This data can be used to optimize tool deployment and for selection of the optimum tool.



Barcode control

- CNC programs can be loaded directly using a barcode. As a rule, the barcode corresponds to the name of the woodWOP program
- Simple scanning and clear assignment to the workpiece
- Reduction of input errors by the operator
- Transfer of stop positions and workpiece variables is possible



woodBase extension

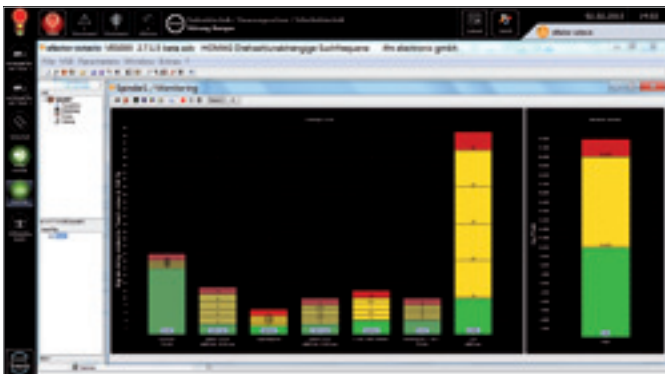
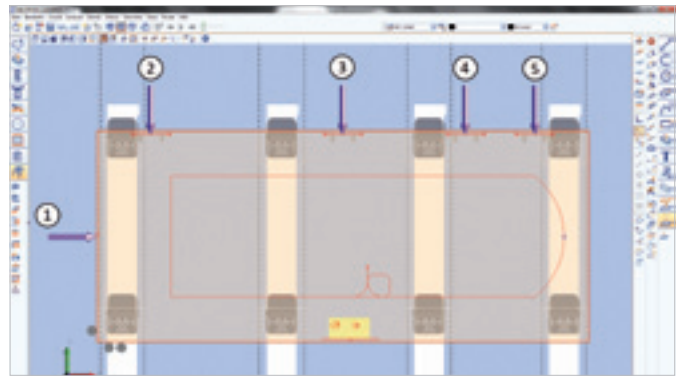
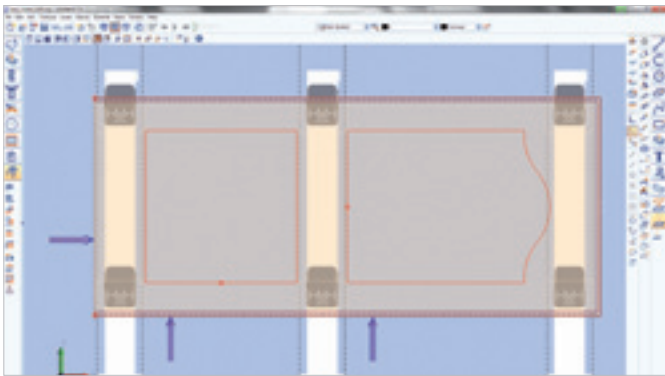
- This is required if a workpiece has to be clamped several times and only one barcode is available
- In a database, completion of the first clamping operation (processing operation) is logged
- When the same barcode is accessed again, a different program is loaded from the database
Example: Door processing on both sides

Software position measurement for measurement probe

- Software package for the measurement probe system for position detection of workpieces on the table
- Automatic rotation of the coordinate system in the CNC program using the determined measurement points
- Examples: Measurement after automatic feeding, automatic determination of raw part offsets, stops with coating ply overhang

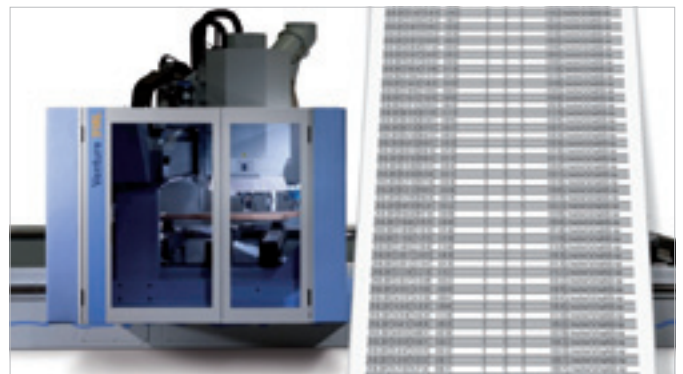
Software multiple measurement for measurement probe

- Up to 100 measurement points can be entered in sequence
- The following processing operations can refer to any optional measurement
- This optimizes the program sequence and the processing time is substantially reduced



Visualization of main spindle vibration data

- Detection of critical vibrations during processing
- Display of a warning and cut-off limit
- Permits monitoring of tool/balancing quality
- Tracing of chatter marks



PC86 Production protocol

- Acquisition of production key indicators (e.g. date, piece number, program start/end) and production events (e.g. interruption)
- Evaluation of information by MS Excel or external production control system



**Choose the Original
Choose Success!**

We reserve the right to make technical changes and further developments. The machine photos also illustrate options which do not form part of the standard equipment outfit. Technical data refers to standard configurations and are not binding for specific orders.

Software 2015



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