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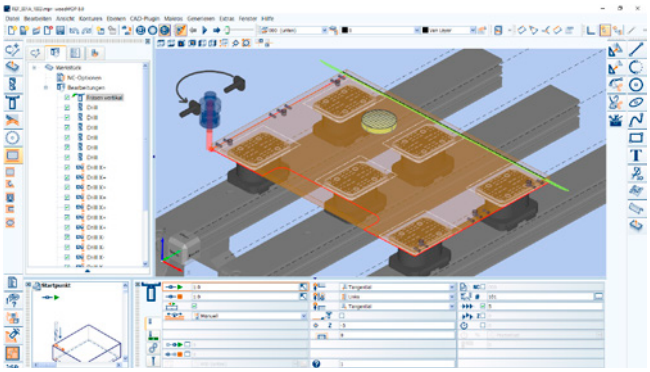
Software

CONTENTS

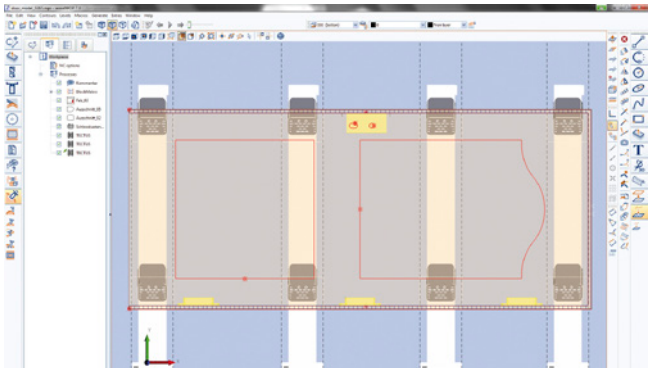
woodWOP

The CNC programming system from HOMAG

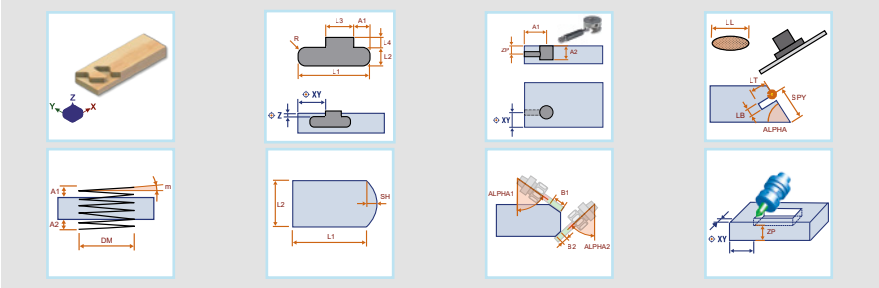
woodWOP is the CNC programming system from HOMAG. The innovative user interface centers on the large graphic area used for displaying workpieces in 3D. The relevant processing diameters can be entered and realistically displayed in the graphic to program trimming and drilling operations and saw cuts quickly and simply. This ensures optimum programming reliability and ongoing checks throughout the programming process. Largest global forum on woodWOP:
forum.homag.com
Free woodWOP demo version and woodWOP components in the download area:
www.homag.com



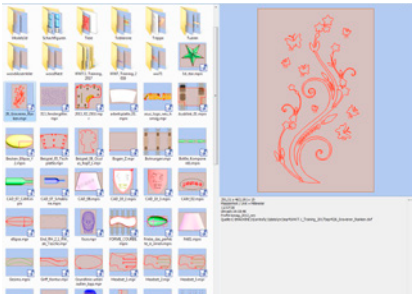
Basic functions
Numerous standard processing steps such as bore holes, saw grooves and pocket routings enable fast and reliable programming.



Components
The components can be used to combine and save machining processes such as hinge processing in individual modules. These modules can be used easily and flexibly in other woodWOP programs. This saves you time during work preparation and production.



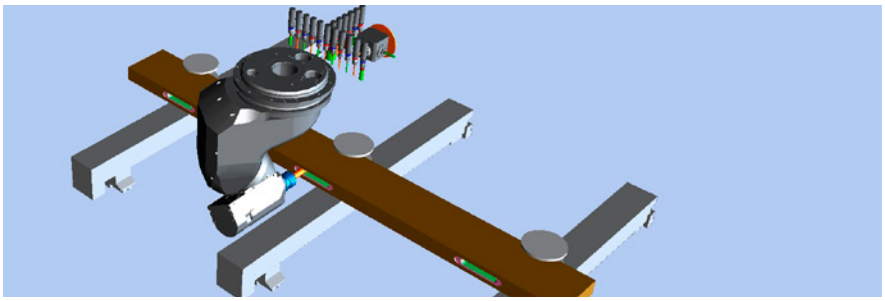
Examples from the component collection



File preview and thumbnail view
In the Windows file explorer, MPR(X) files can be displayed as thumbnails. The contents of the files are recognizable at a glance. With the file preview, a large graphic as well as the contents of the comment macro are displayed in the Windows Explorer.

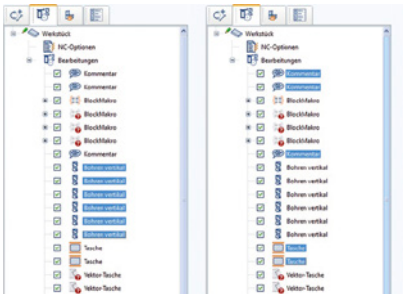
BENEFITS:

- Increased programming security through 3D graphics of workpieces, processing and clamping equipment.
- Increased user friendliness thanks to a modern user interface design, e.g. freely adjustable windows, multi-screen capability, pictorial input screens, help images, and much more.



Tool optimization of components

In woodWOP, components can be grouped in a block and optimized for minimal tool changes.

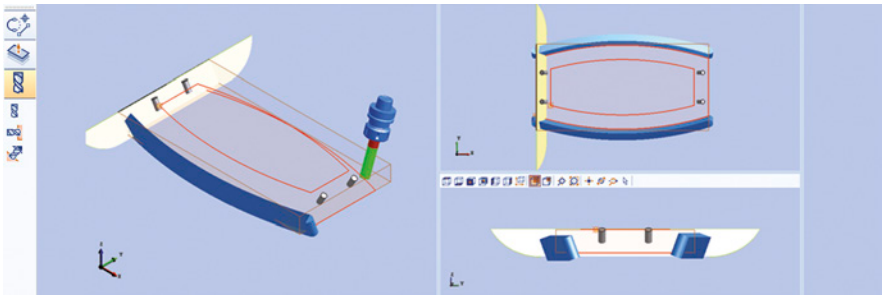


Multiple selection and mass changes of parameter values

Selection of macros for deleting, copying, duplicating and moving. Change parameter values of several macros simultaneously.

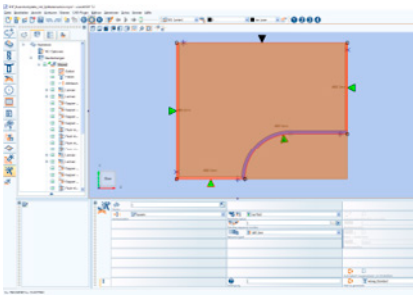
Overview of benefits

- Save time creating and modifying programs
- Quick and convenient correction, e.g. of incorrect or incomplete values from the CAD data transfer



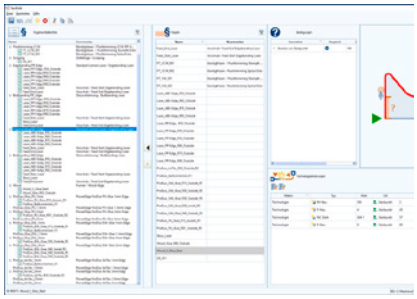
Adjusting axis programming

The fifth axis can easily be programmed as an adjusting axis in woodWOP. Tool preview and preview of the machining paths make programming easier and offer the programmer reliability.



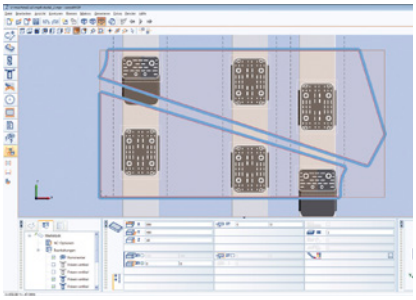
woodWOP Wizard

With the woodWOP Wizard, all processing steps for edge band application are automatically generated at the push of a button. Depending on a contour, an edging proposal is generated, which can be edited and adapted afterward. The result is displayed directly in woodWOP.



Technology database

Technical parameters are automatically changed and the woodWOP program is automatically adapted depending on the workpiece contour, e.g. 2-mm PVC edge: If the radius is smaller than 30 mm, reduce the feed and switch on the hot nozzle.



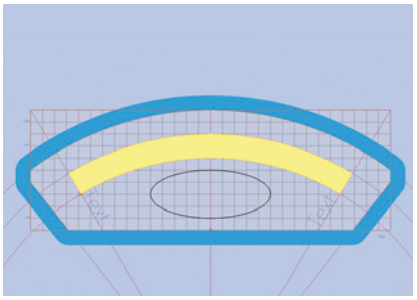
Suction unit recommendation

The integrated suction unit recommendation automatically calculates the position of the clamping equipment depending on the programmed machining steps.

woodWOP CAD plug-in

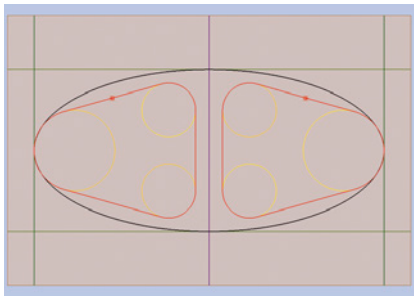
Integrated 2D CAD functions for woodWOP

The CAD plug-in makes the creation of contour definitions quick and easy. Draw lines, arcs, circles, ellipses and splines interactively. Numerous change functions such as crop, stretch and mirror are also available. Contour tracing is used to combine created drawing elements into a contour definition.



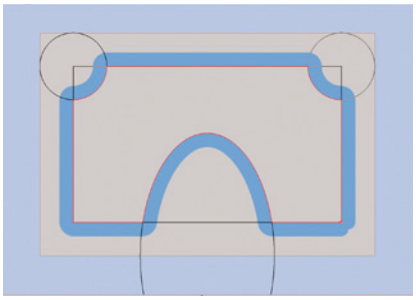
Drawing

- Lines, arches, circles
- Ellipses, arches
- Splines
- Rectangle, n-gon



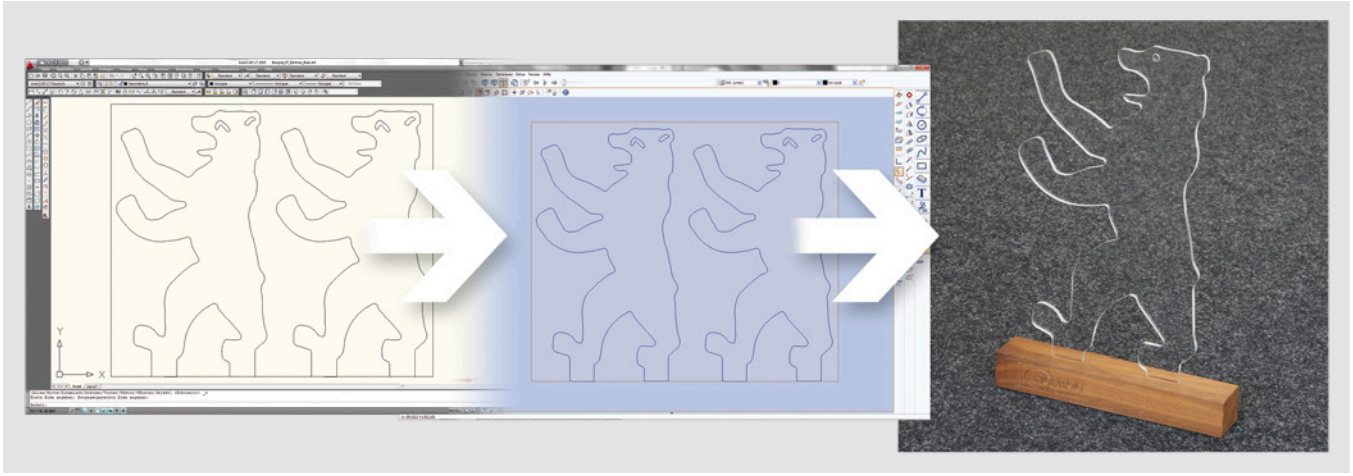
Edit

- Moving, rotating, mirroring
- Scaling
- Create multiple copies and shift/rotate
- Trim, extend, split, round, chamfer
- Offsetting carried out



Creation of contour elements

By selecting a start point and specifying a direction, individual CAD elements are automatically connected to form a contiguous woodWOP contour definition. At intersections, the operator decides the further course by interactively selecting the elements in the graphic.

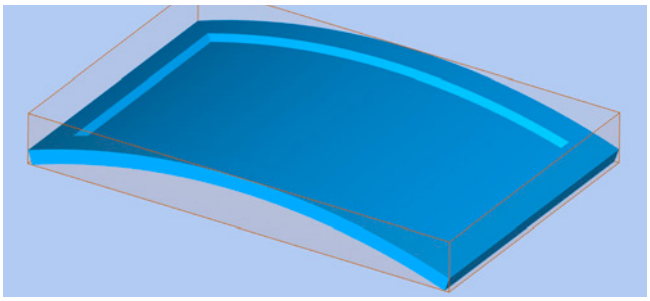


DXF import

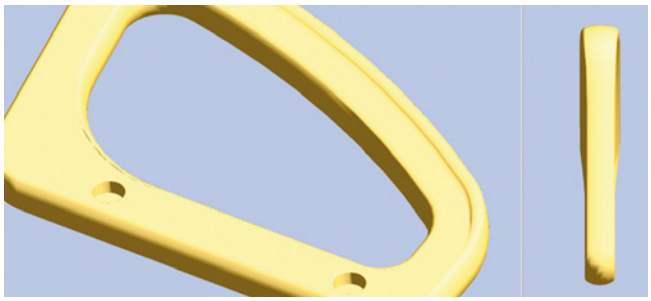
Existing CAD drawings in DXF format can be input and edited directly. No special layer assignment is required.

3D CAD design
Directly in woodWOP

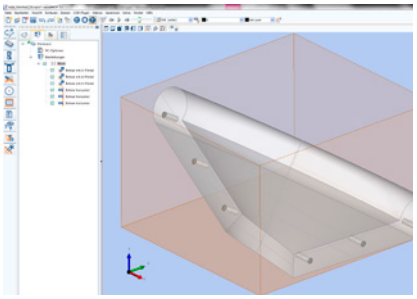
Design options are extended with 3D CAD functions. The operator can easily create 3D surfaces or open finished 3D models directly in woodWOP.

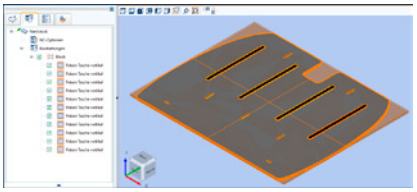


Design options
Construction of surfaces by means of cross-sections, guide curves, boundary lines, rotation, extrusion, etc.

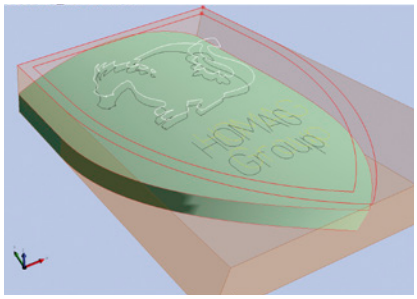


Importing 3D models
3D CAD drawings can be imported directly into woodWOP in the following standard formats: *.igs, *.stp, *.dxf (3D), *.stl, *.sat, *.wrl

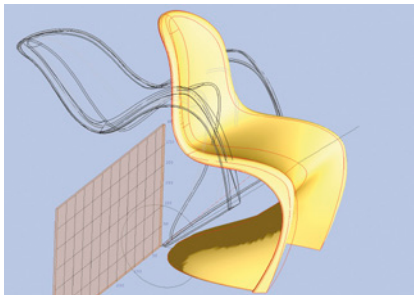




Feature recognition of processing operations
- Automatic detection of bore holes, pockets and saw grooves in a 3D model
- Automatic detection of bore holes in a 2D drawing
- Automatic creation of woodWOP macros
- Using further sets of rules, woodWOP components can also be added automatically



Projection
Projection of geometry elements and lettering on 3D surfaces.



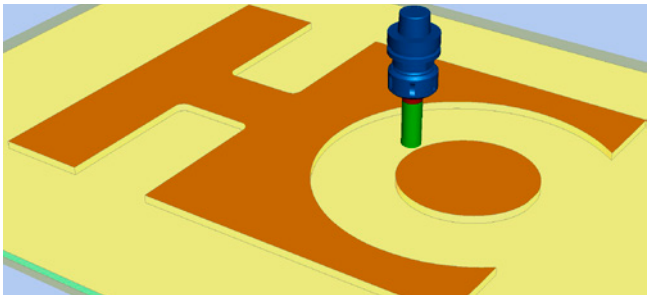
Editing 3D objects
- 3D rotation, 3D mirroring, 3D scaling
- Nozzles, extensions, rounds

BENEFITS:
- CAD functions integrated directly into the woodWOP interface
- Intuitive operation and quick familiarization through a standardized look and feel
- Support in the design of step-by-step instructions

woodWOP CAM plug-in basic

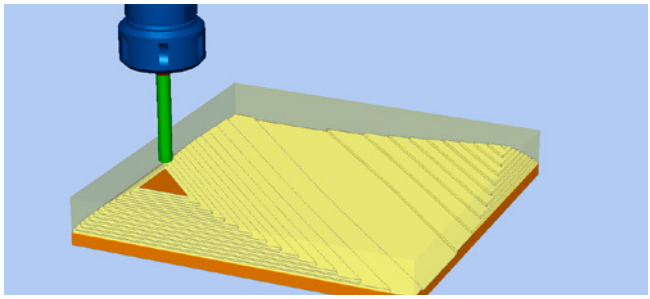
Processing 3D surfaces with woodWOP

With the woodWOP CAM plug-in, HOMAG is entering a new era in machine-level programming. Where the trimmer was previously programmed via contour lines, the CAM plug-in now allows users to select a surface, and the software then calculates the required tracks automatically. This software module enhances woodWOP, creating a CAD/CAM system that lets you process 3D surfaces with three axes.



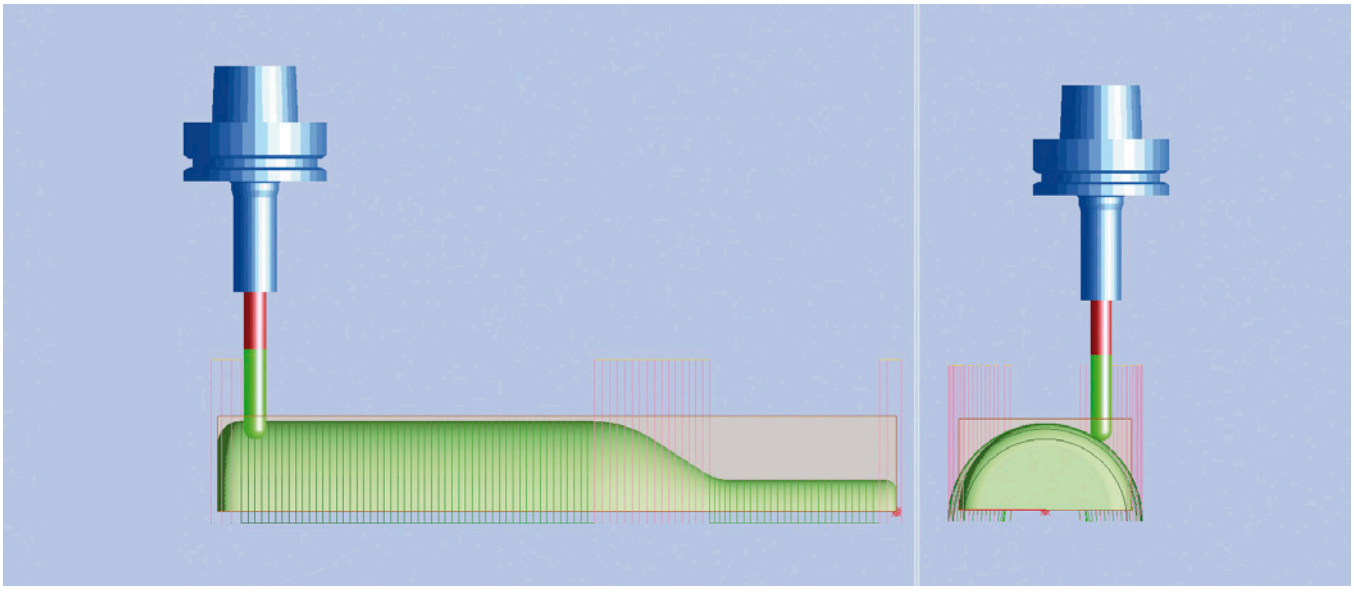
Pocket trimming with islands

- Clear pockets
- Interior elements ("islands") are left
- Residual material detection, i.e. using a second, smaller trimmer, only the material that could not be removed from the first tool is trimmed

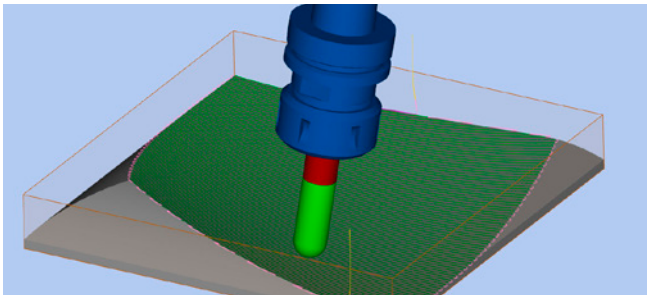


3D roughing down

- Preliminary processing of the workpiece for subsequent fine processing
- As much material as possible is removed in as short a time as possible
- The tool paths are calculated automatically once the surfaces have been selected

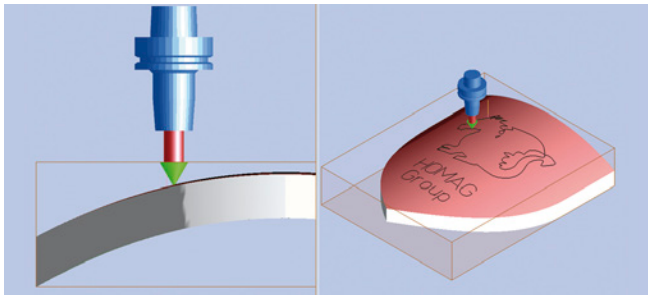


Three-axis processing of a 3D object



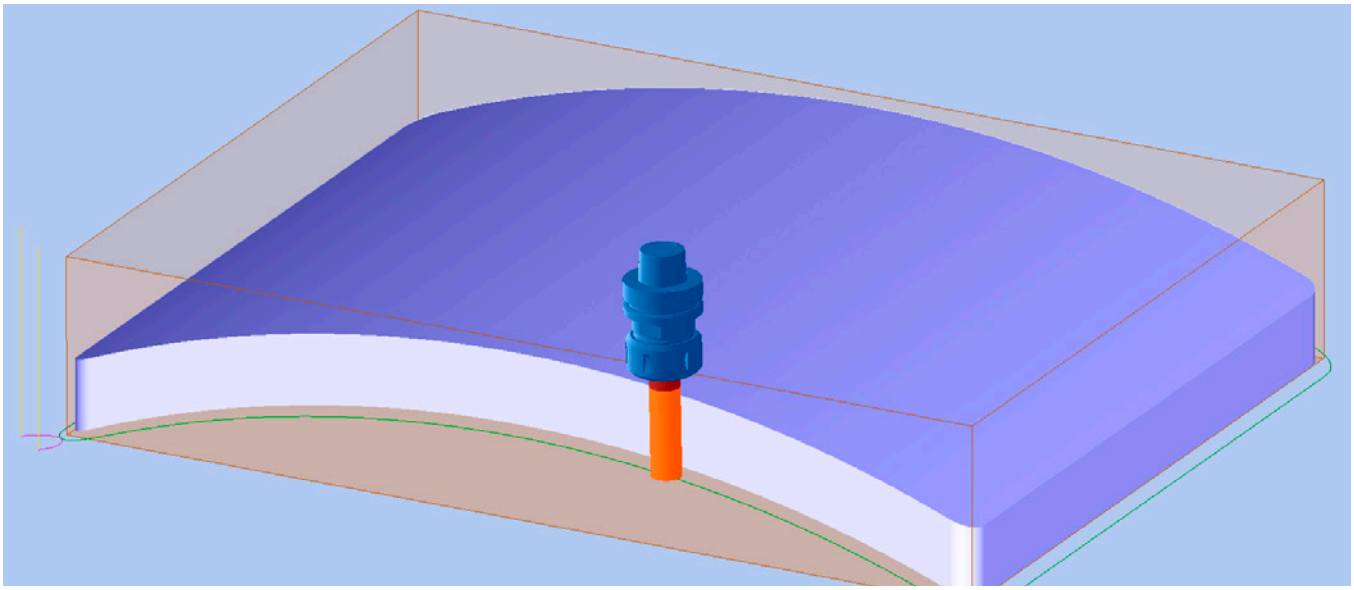
3D finishing

- Fine processing of the surfaces
- 3D surfaces are created by tracing with a spherical cutter
- Various trimming strategies are available for three-axis processing



3D curve trimming

- Trimming 3D lines
- Engraving texts and geometries on curved components
- Vertical orientation of the trimmer (three-axis processing)



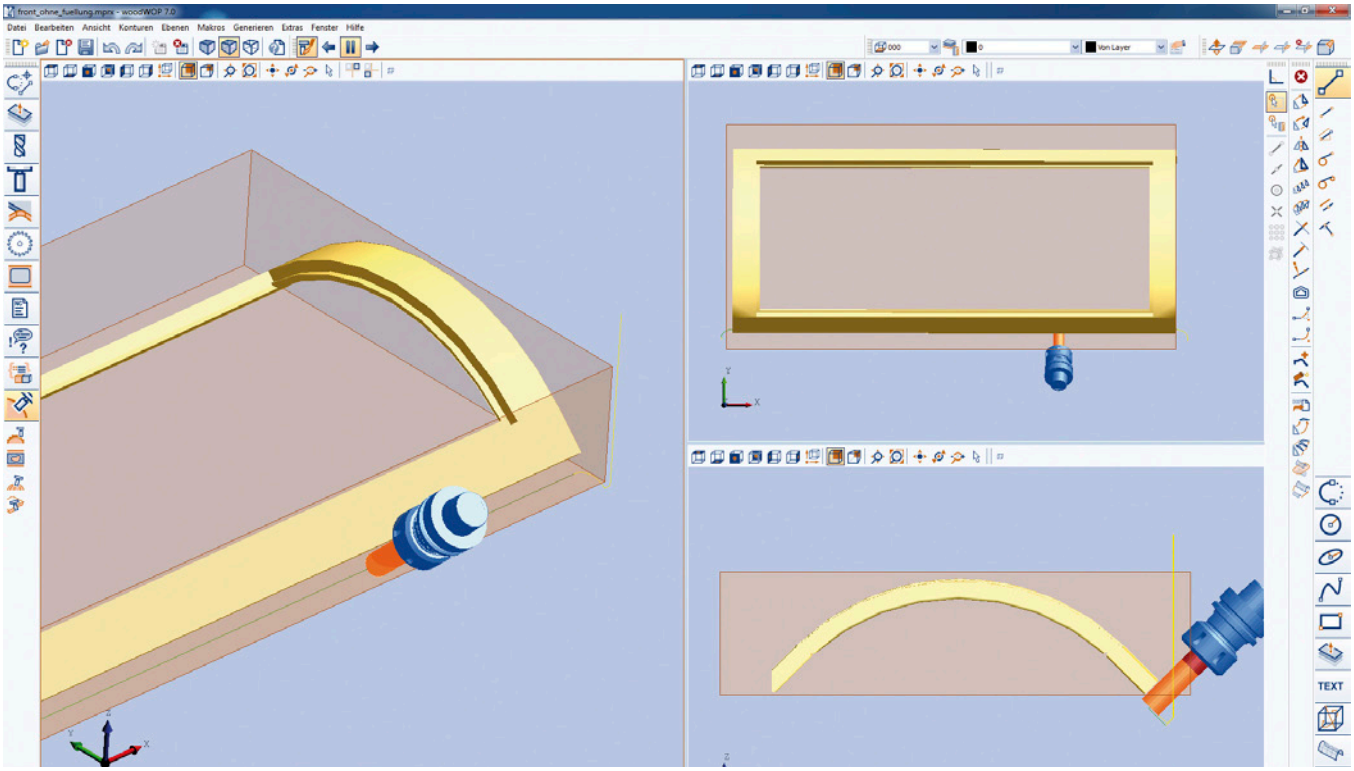
3D peripheral trimming

- Tool orientation using two guide fences or the surface
- Selection of different strategies for corner processing for perpendicular orientation of the tool

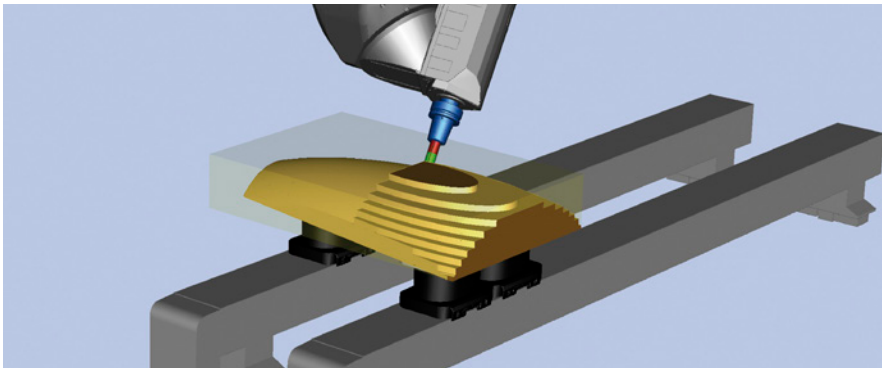
woodWOP CAM plug-in professional

Processing 3D surfaces with woodWOP

This software module enhances woodWOP, creating a CAD/CAM system that lets you process 3D surfaces with three, four and five-axis interpolation depending on the machine equipment.

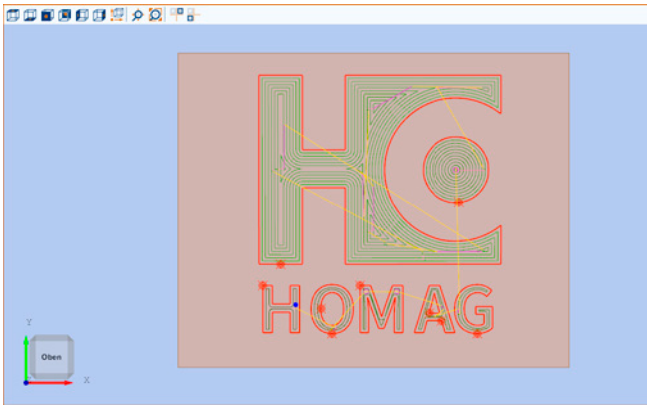


Interpolating 5-axis processing of a free-form surface



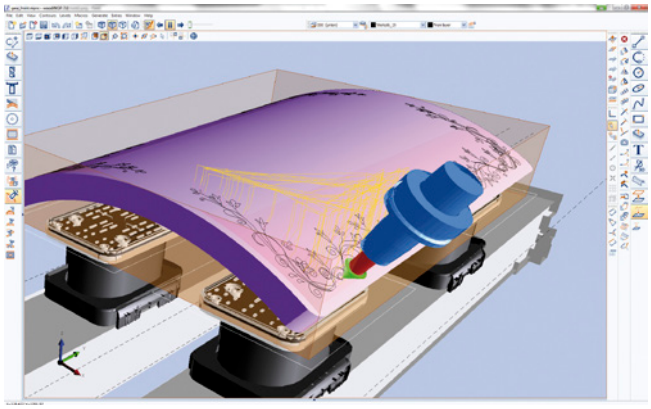
3D roughing and finishing

- Programming by selecting of the surface to be processed
- Automatic calculation of tool paths
- Different trimming strategies (three, four and five-axis)
- Different approach and withdrawal modes



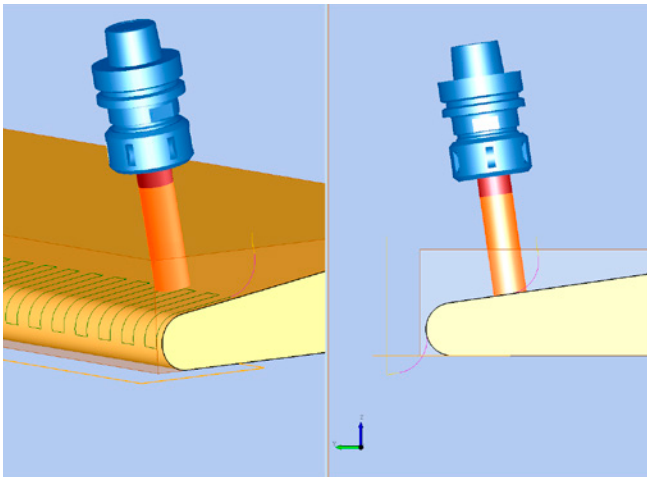
Pocket trimming with islands

- Clear pockets in any working plane
- Interior elements ("islands") are left
- Residual material detection, i.e. using a second, smaller trimmer, only the material that could not be removed from the first tool is trimmed



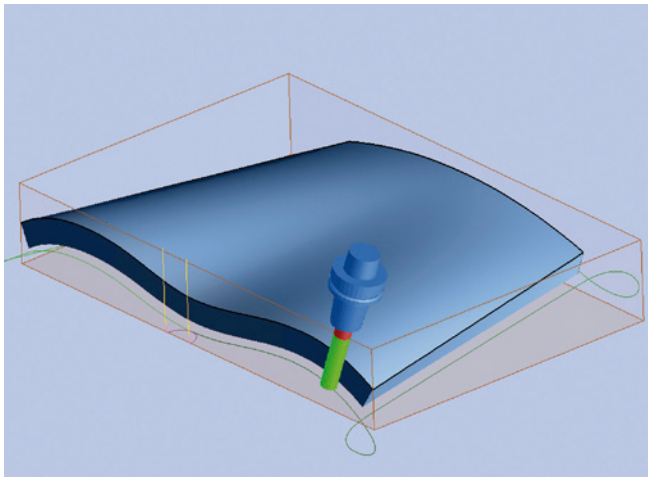
3D curve trimming

- Trimming 3D lines
- Engraving texts and geometries on curved components
- Automatic orientation of the trimmer vertical to the surface



3D finishing

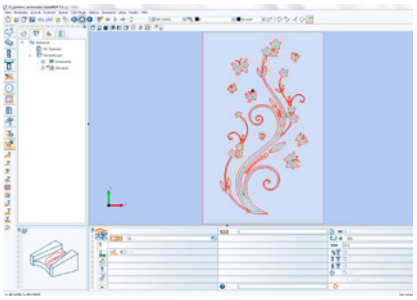
- Various trimming strategies and adjustable processing parameters
- Detailed definition of travel ranges through boundary angles
- Realistic representation of the tool track directly in woodWOP

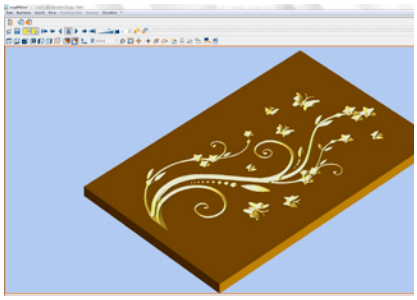


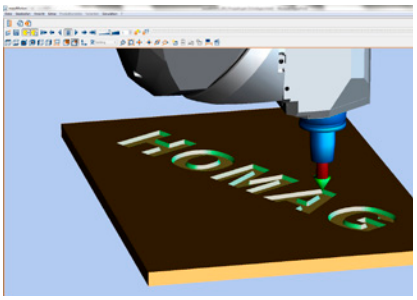
3D peripheral trimming

- Tool orientation using two guide fences or the surface
- Selection of different strategies for corner processing for any orientation of the tool

Process 3D surfaces with woodWOP

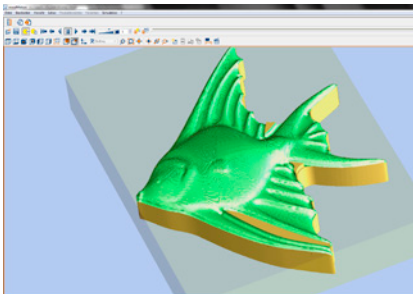


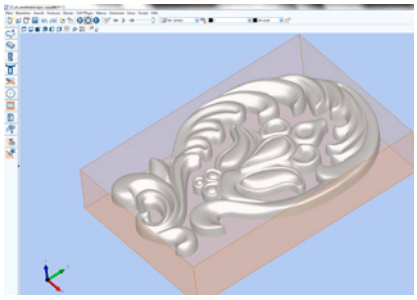




3D engraving

- Engraving of closed, coplanar (= in one plane) contour definitions
- The macro recognizes the inner side of closed curves and sets the tool path on this side
- Tool is automatically raised in the corners
- Tool: Stylus trimmer

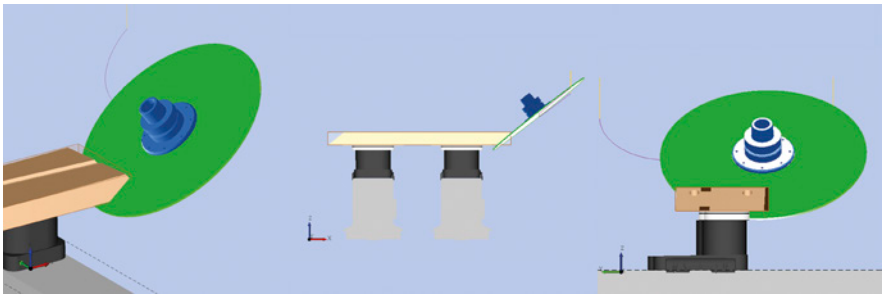


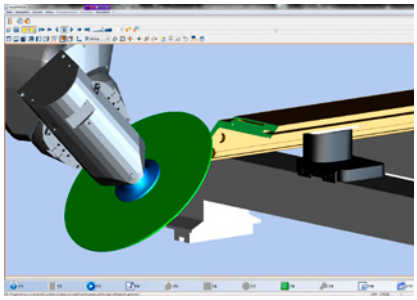


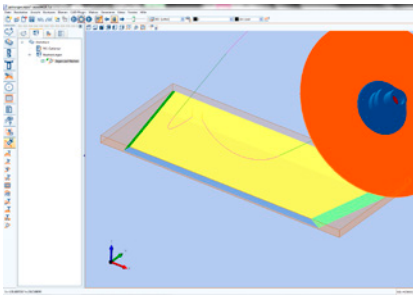
STL surface trimming

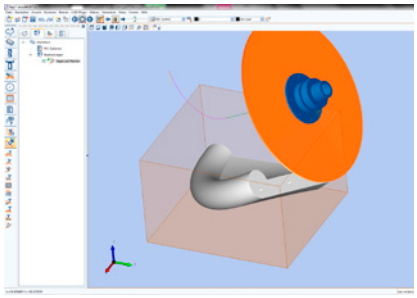
- The tool orientation can be defined in the macro and remains fixed during processing (adjustment axis)
- Different trimming strategies and limits allow easy programming of complex surfaces
- Typical use cases are the trimming of digitalized objects, 3D reliefs and ornaments

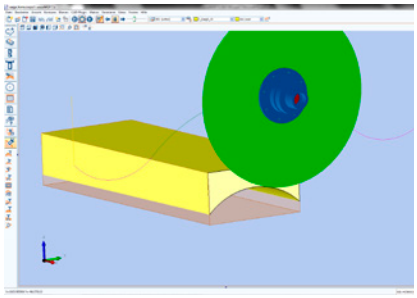
Surface-based sawing

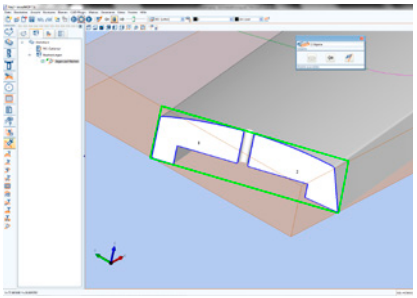


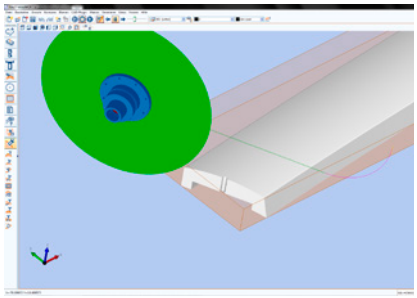


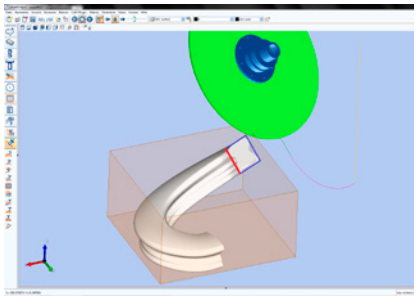












Mode: Automatic

- Selection of one or more coplanar surfaces
- Automatic creation of the smallest possible rectangular surface for non-rectangular basic surfaces
- Automatic generation of saw cuts incl. approach and withdrawal cycles

Mode: Manual

- Selection of one or more coplanar surfaces
- Selection of a guide curve from the 3D model or selection of a line of the surrounding rectangle

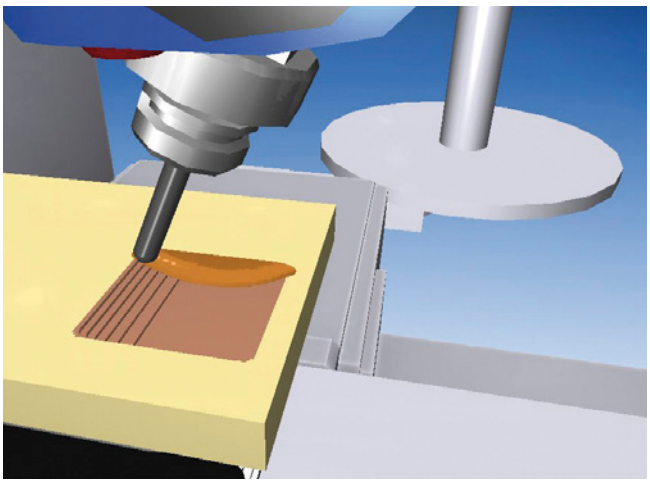
BENEFITS:

- CAD/CAM system fully integrated in woodWOP
- Processing of CAD data in standard exchange formats for the market: STEP, IGS, 3D-DXF, STL, SAT and WRL
- Generation of the milling paths of the three-axis to the interpolating five-axis processing for roughing down, finishing and formatting of 3D objects
- Automatic sawing on surfaces and automatic detection of bore holes in the 3D model

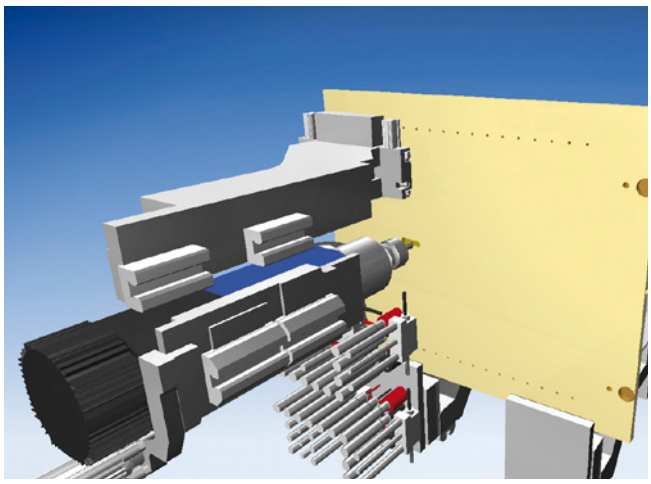
Simulation and time calculation

Software for the simulation of CNC programs

The program for simulation and time calculation makes it possible to simulate and calculate processing steps in the office and to check them for potential errors.



Simulation including material removal

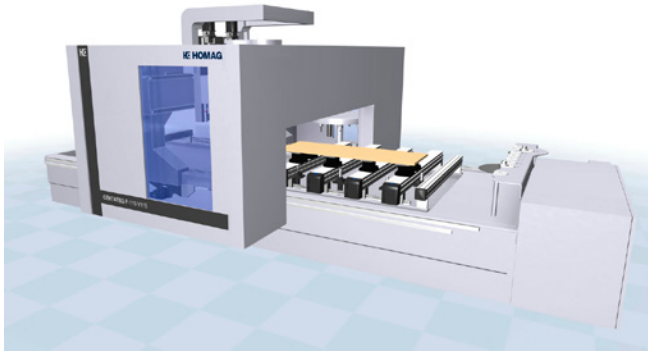


Vertical processing on a DRILLTEQ

3D CNC simulator

An automatic routine determines the machine configuration and tools fitted. The positions of the clamping equipment in the NC program are displayed and checked for collisions during throughfeed processes.

Series: DRILLTEQ H-600, DRILLTEQ V-200/500
CENTATEQ P-110, CENTATEQ N-500, 700 and 800

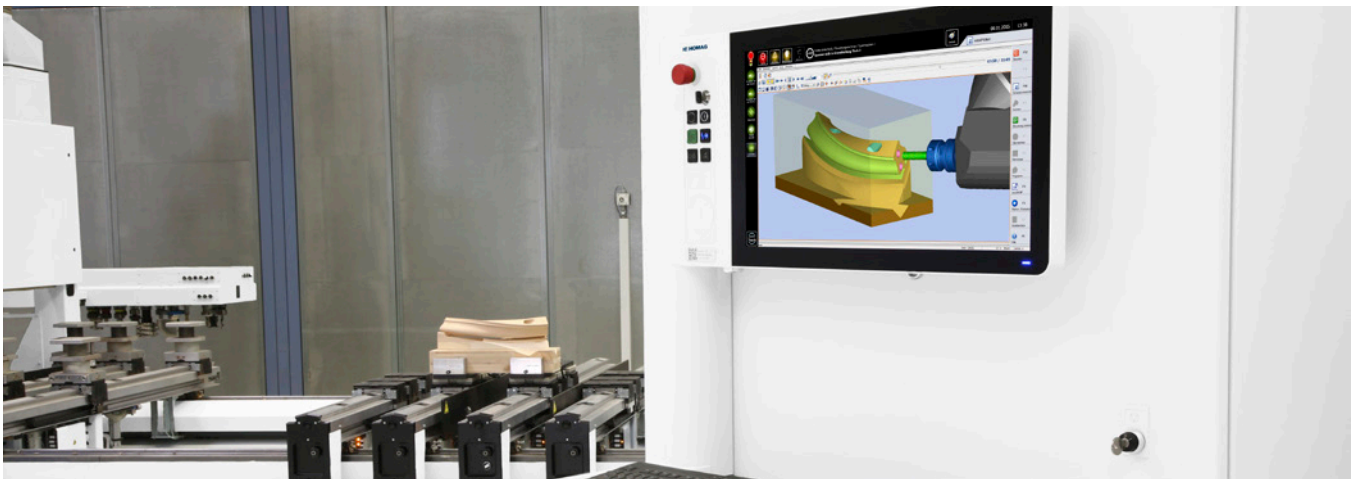


Realistic representation of the machine and tools

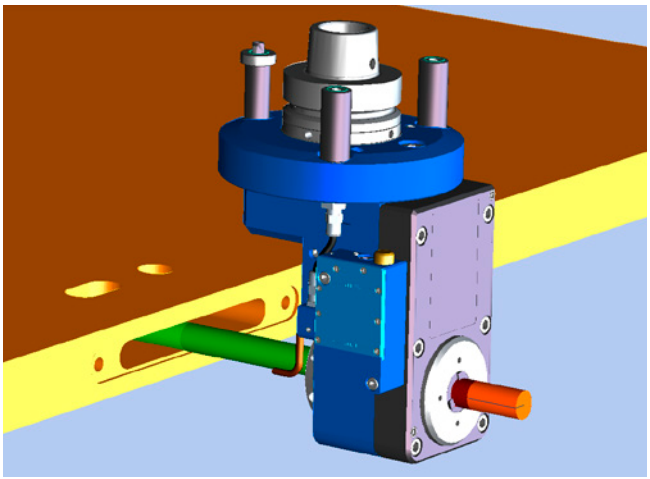
woodMotion

woodMotion simulates the working steps of the machine on the office PC, providing graphic representations of all operating processes on the workpiece. These images enable the programmer to check every processing step as early as the work preparation stage and to detect any potential collisions between tools and clamping equipment in advance. The simulation is based on a virtual machine with a real CNC core, which is controlled via the data of the respective customer machine.

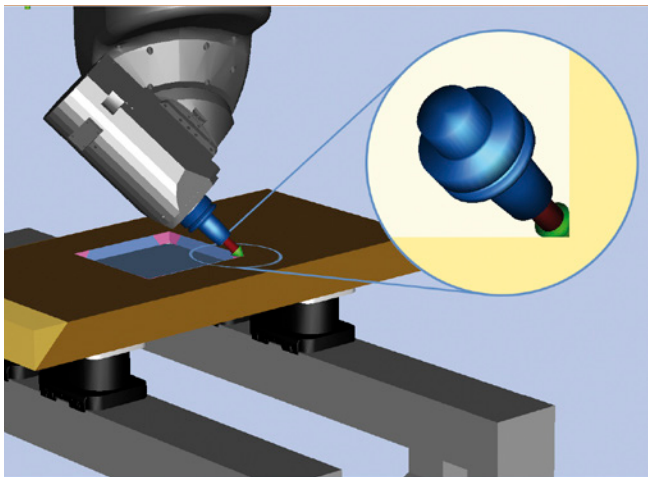
SERIES: DRILLTEQ V-310, CENTATEQ N-210, CENTATEQ N-510, CENTATEQ N-600, CENTATEQ T-300, CENTATEQ T-600/T-700/E-700, CENTATEQ P-210, CENTATEQ P-510/E-510/P-610.



Simulation on the machine PC



Display of units



Cutting out corners with a five-axis head

BENEFITS:

- Optimal program preparation as running-in periods on the machine are reduced
- Simulation of five-axis processing including material removal
- Collision monitoring of tool with clamping equipment

Nesting software

Solutions for nesting components

In the case of nesting technology, workpieces are "nested" to achieve a better material yield by optimizing cuts. Especially with a large variety of shaped parts, nesting enables high material saving potential.

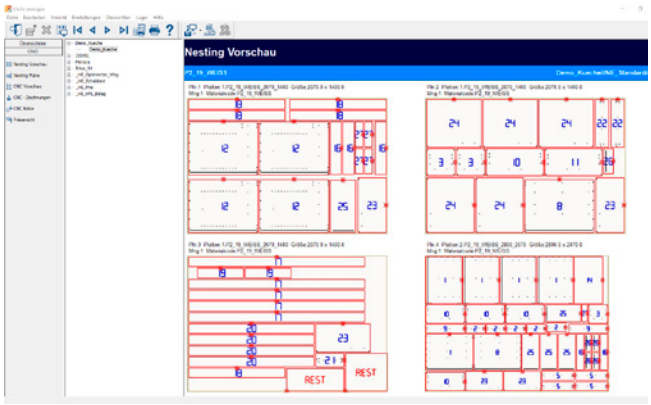
intelliDivide Nesting

- Web-based nesting software
- Rectangular and free-form part optimization
- Intelligent import from CSV, XLS(X), PNX, MPR
- Part-in-part nesting

Optionally available with expansion for label printing.

Nesting Production Set:

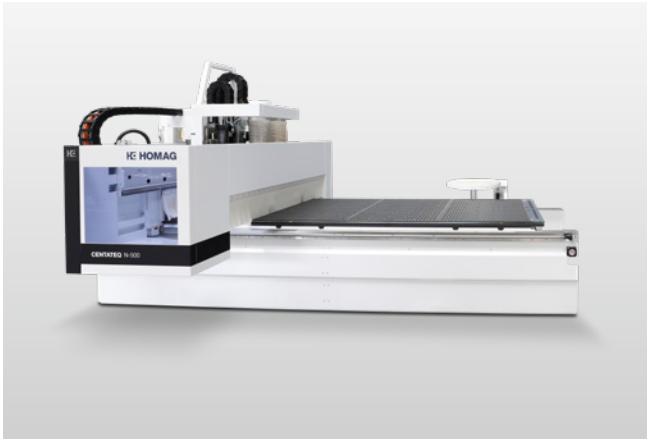
- "productionAssist Nesting" app for nesting plan selection and triggering label printing
- "materialManager" and "materialAssist" app for the management of unprocessed panels and the reuse of offcuts
- Plug & Play label printer

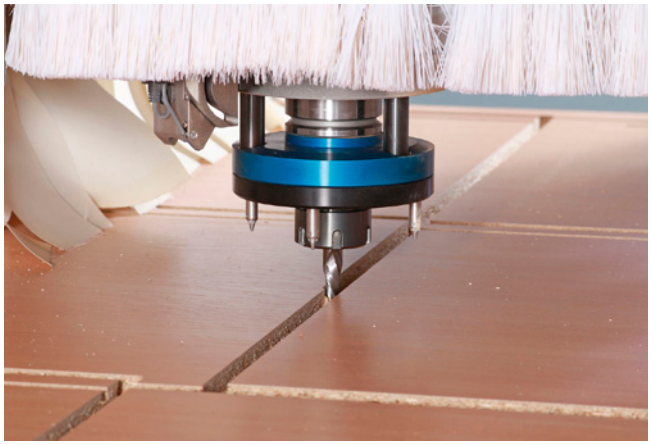


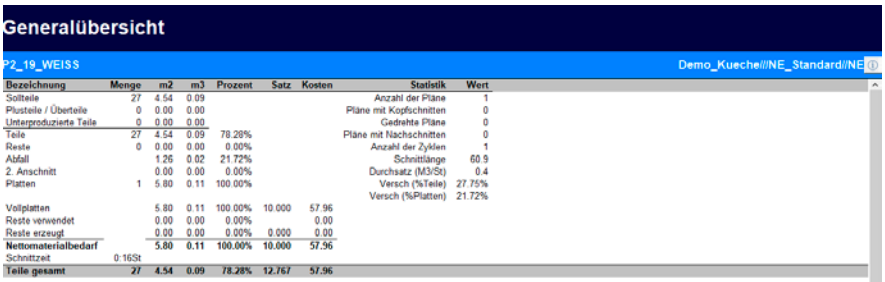
Cut Rite nesting

Cut Rite, HOMAG's optimization software, is used for dividing panels on saws and on nesting machines. Since the software is modular, users who already control their saw via Cut Rite can easily integrate the nesting module.

- Panel database and calculation of material costs
- Labeling in the office including layout editor
- Optionally, additional modules can be used, for example, for storage management



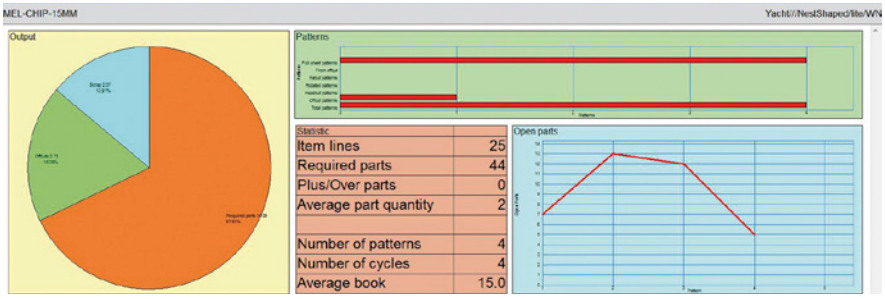




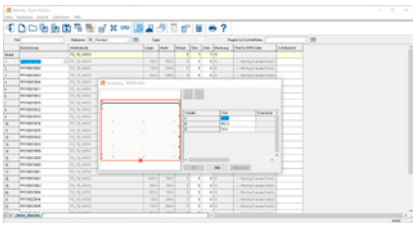
Cut Rite nesting

Result

Cut Rite presents the results of the optimization in a clear structure. Multiple reports are issued for each optimization run. These reports can be configured to individual requirements.



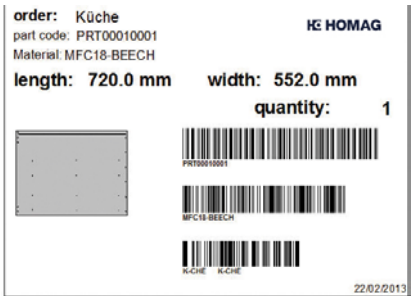
Cut Rite nesting — results graphic



Cut Rite nesting

Parts list

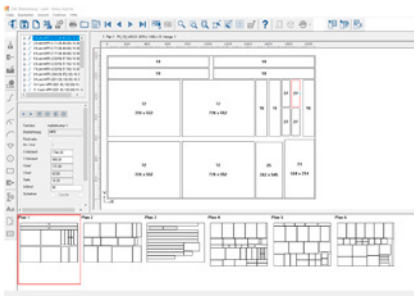
- Can be created manually by inserting individual woodWOP files. Can be imported from other programs, such as Excel tables
- Can be edited and processed as required
- Import of up to 50 woodWOP variables
- The program optimizes the part list, sorted by material or any other parameter



Cut Rite nesting

Label designer

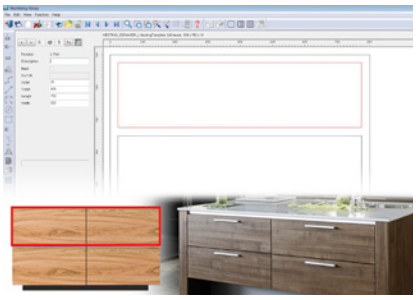
- With the integrated label designer, labels can be created at the workplace and printed directly in the office
- This function does not replace the automatic print function on the machine



Cut Rite nesting

Editor

If necessary, you can change the optimization result, e.g. add fill parts.



Cut Rite nesting

Cutting pattern templates

Cutting pattern templates can be created, e.g. for furniture fronts, to ensure continuous grain across several single parts.

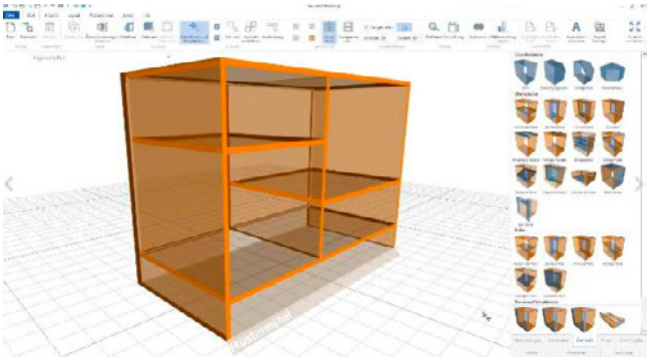
BENEFITS:

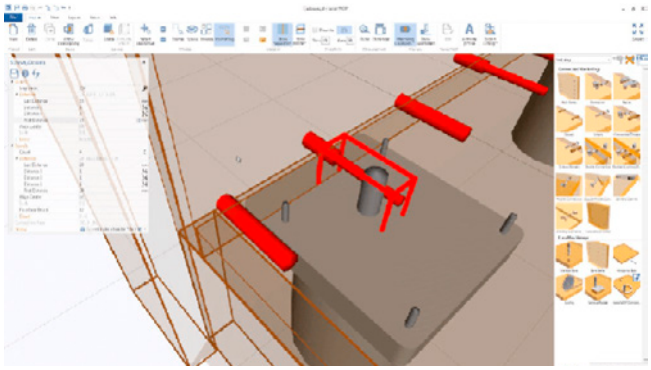
- The combination of cutting and end processing means no intermediate stacking of individual parts is required
- Material costs and total processing time are reduced

SmartWOP

The clever design software for carpenters and joiners

- Intuitive, visual drag-and-drop customized furniture design – all without the need for CAD knowledge
- Integrated creation of complete furniture with all components included, in just one process step and automatically matched to each other
- Ideally suited to cabinet furniture and related structures in furniture construction, trade fair construction and other fields of application
- Accessory library with matching fixtures from the most popular manufacturers such as Blum, Hettich and Häfele
- Integrated board library that can be supplemented individually





BENEFITS:

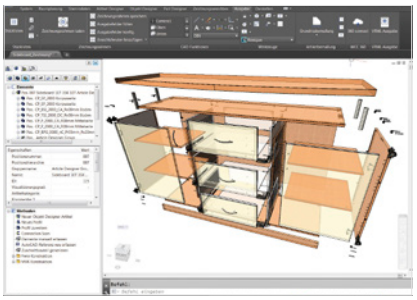
- **Clever, easy, fast**
- **Huge diversity of performance**
- **Ideal for producing single pieces and small series, which previously had to be programmed manually**
- **Automatic creation of material lists, parts lists and WOP programs for your CNC**
- **Creation of impressive, photo-realistic 3D presentations for your customers**

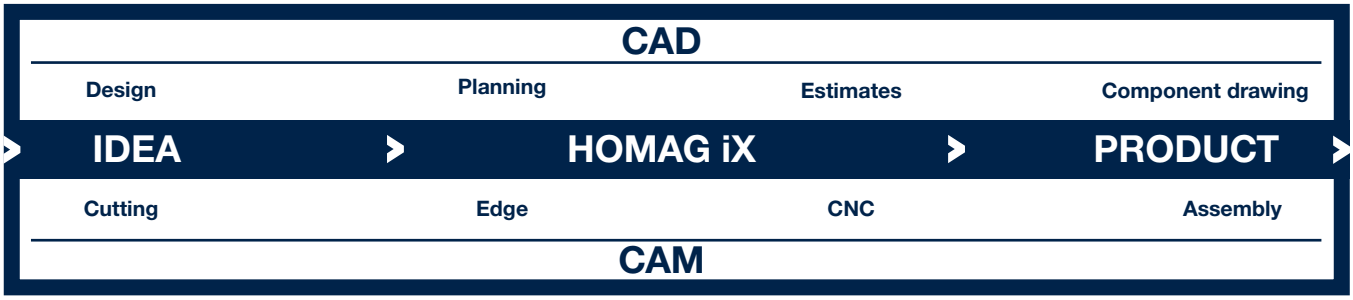

woodCADCAM OEM Sideboard_Zeichnung.DWG
Ausgabe
Darstellen
CAD-Funktionen
Röntgen
Werkzeuge
Grundrissbemaßung
Artikelbemaßung
360 connect
WCC 360
VRML Ausgabe
VRML Ausgabe
Befehl:
Befehl eingeben
MODELL

HOMAG iX

Integrated software for 3D design and production of furniture and for interior fittings

From the concept to the end product: As an integrated software solution, HOMAG iX supports the entire process, from planning and presentation to the design and production of the planned items of furniture. Regardless of whether you're producing individual pieces or planning entire room concepts — with HOMAG iX you save time, avoid errors and work efficiently.





Easy. Efficient. Impressive.
Designs for individual items of furniture or entire room planning can be created in no time and presented impressively with photorealistic images. You want to change something? No problem! You can change, estimate and display details or entire assemblies easily and at any time.

Individual. Optimal. Automated. After the design phase, the production documents and CNC programs can be generated at the push of a button. The cutting list is transferred directly to the Cut Rite cutting optimization. The barcodes created by HOMAG iX allow you to organize your order and production processes so that they are reliable and free from errors.

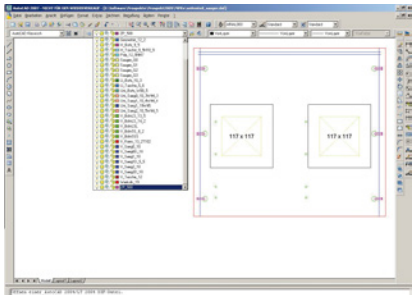
BENEFITS:

- Integrated data flow from concept to finished item of furniture
- A time saving of up to 70% in work preparation
- Automatic creation of sales documents: photorealistic presentation, quoting, and drawing proposals
- Free, parameterized 3D design
- Extensive fixtures libraries

woodWOP DXF import

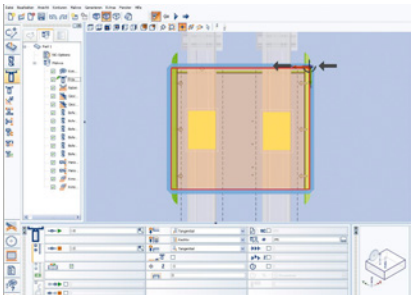
The direct path from CAD drawing to production

The widely used, independent DXF format for the exchange of CAD drawings is used as the basis for the generation of woodWOP programs. Once workpieces have been drawn, they can be imported directly into woodWOP and transferred to the machine.

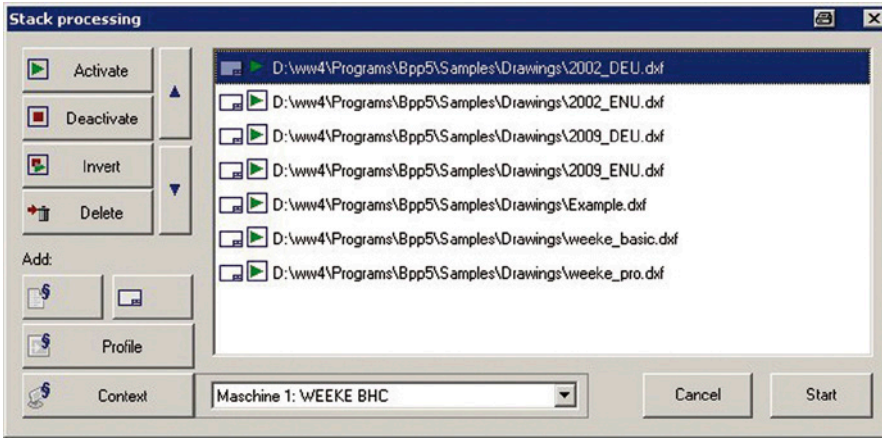


Preparation of the DXF file
The individual layers (levels) of the drawings contain all relevant information for processing.

Conversion
With the aid of pre-set rules, all drawing elements in processing can be obtained from the DXF files.



Output in woodWOP
The processes are then generated automatically when the data is imported.



DXF-Import Professional including batch processing
Special applications can be expanded and conversion rules can be flexibly expanded as required for each machining type. As a result, almost all possibilities can be covered by woodWOP. Batch processing can be used to convert any number of DXF files with a start process into woodWOP programs.

BENEFITS:

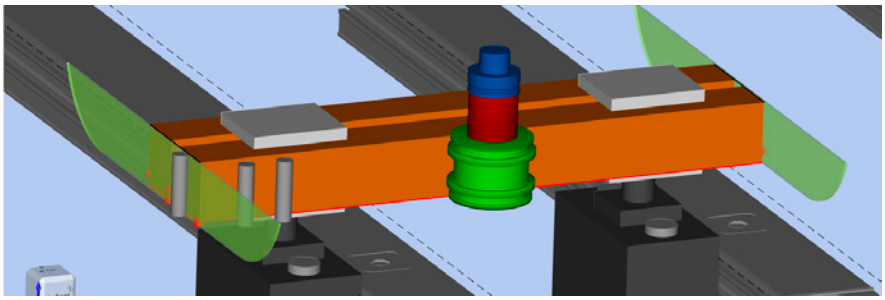
- Programming the workpiece all at once
- Direct path from the drawing to the machine
- No post-processing in woodWOP necessary

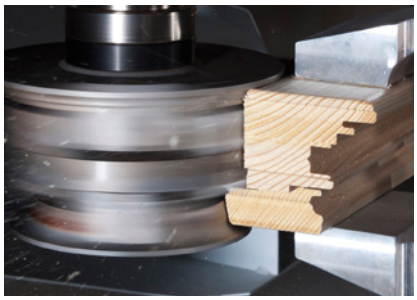
woodWindows window software

The quick path to CNC window production

From the MPR interface for windows to the "Professional" configuration of a complex manufacturing environment, woodWindows offers the ideal solution for every application, as well as individual project support from HOMAG windows and software specialists:

- Project-related system integration
- Link to existing or new industry solutions
- Commissioning at HOMAG and on-site
- Custom expertise sharing
- Turnkey handover according to the defined scope of services
- Individual machine optimization
- Individual scope of services





MPR interface window	Professional
Connect industry solutions via the defined MPR format	Customer-specific programming of processing macros by HOMAG window specialists
	Connection via project file

BENEFITS:

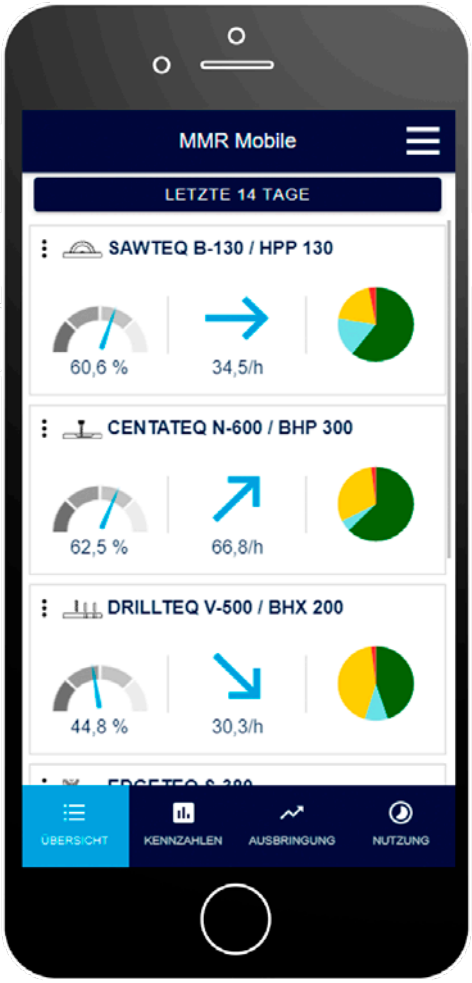
- Safety from the start thanks to a widely used system
- Minimal "plug and play" commissioning time thanks to predefined master data
- Rapid familiarization via simple processes
- Smooth handling via turnkey handover with defined interfaces

MMR

Your tool for efficiency in production

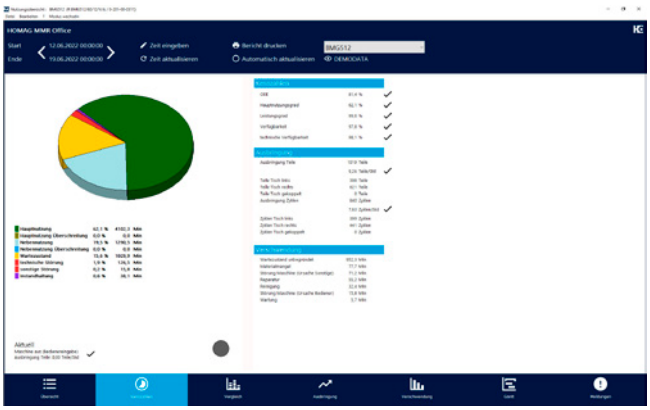
The MMR (Machine Monitoring & Reporting) software collects machine control unit and software data for you and makes it available to you for evaluation in the office, on a mobile phone or on the machine itself.
With these evaluations, you will be able to get a better understanding of and continuously improve the current efficiency of your production.

Get the data prepared from different perspectives and analyze it in a targeted way. Identify performance losses easily and quickly and take the appropriate actions to optimize or eliminate them completely.



MMR Mobile
All machines in your pocket

- All machines at a glance
- Data is provided via the cloud
- Meaningful evaluations available quickly
- Available free of charge with each new machine



MMR Office Lite

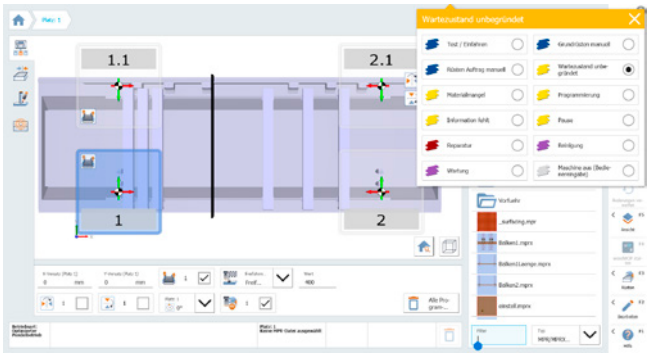
The lean solution for the office

- Detailed analyses (going back up to 30 days)
- Quick and easy to install (access to the database on the machine)
- Multi-machine overview, shift comparisons, application history, error messages

MMR Office

The expert evaluation tool for the office

- Detailed analyses (going back up to two years)
- Installation of a database on your server
- Old and third-party machines can be connected
- Multi-machine overview, shift comparisons, application history, error messages



MMR Professional/Basic

The machine data recorder

- Basic is installed on the machine as standard and collects the data
- Professional offers operator input of reasons for idle times and a detailed evaluation on the machine

BENEFITS:

- Overview of the capacity and current utilization of production
- Measure effectiveness through easy-to-interpret metrics
- Simple analysis of improvement potential
- Detailed analysis of idle times

Apps and digital assistants.
Quick and easy support in your machine environment.

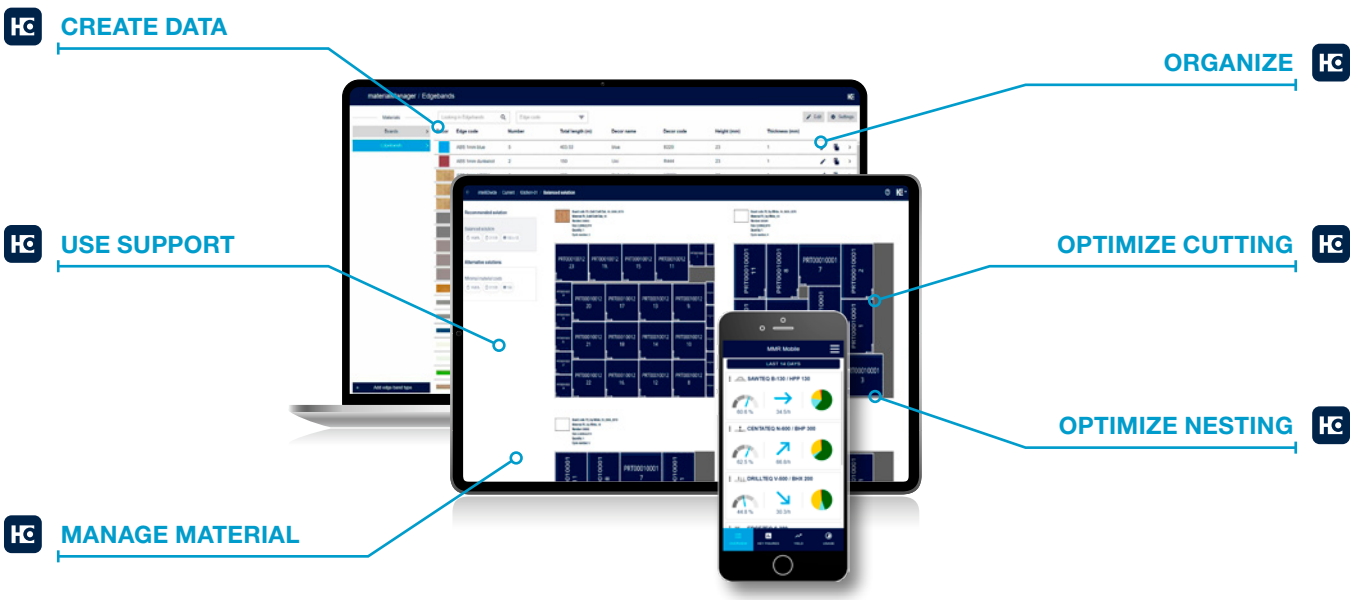
Some people still use pen and paper to create their cutting patterns. But they look at their smartphone if they want to know what the weather is like – instead of looking out of the window. We asked ourselves: why not combine the best of both? Our apps and digital solutions make your everyday work easier: machines, material, tools, cutting patterns, components – you always have everything in your pocket or on your desk.

EXCERPTS FROM YOUR FEEDBACK:

- Are there simple solutions that can eliminate various obstacles in my day-to-day work (e.g. when organizing materials or sorting parts)?
- Is there a way to slowly approach using digital assistants?
- Which tools can you try out simply and easily without having to invest huge sums of money straight away?

OUR ANSWER? SMART AND POWERFUL SOLUTIONS:

✓ **Always low investment**
✓ **Always up to date (no updates necessary)**
✓ **Always easy to use (no complex software)**
✓ **Always helpful**



THE ADVANTAGES AT A GLANCE

- **No investment, update or maintenance costs**
  Low starting price, no unplanned financial expense
- **Licenses are independent of the user**
  Any number of employees can use the application without incurring additional costs
- **Independent of hardware and operating system**
  Can be used anywhere, anytime
- **Open system – import possible from almost all systems (ERP, industry software, CAD/CAM, Excel, CSV)**
  No obligation to use specific software systems
- **Simple, smart operation**
  Minimal training required
- **More efficient production**
  Jobs completed more quickly, more safely and in higher quality

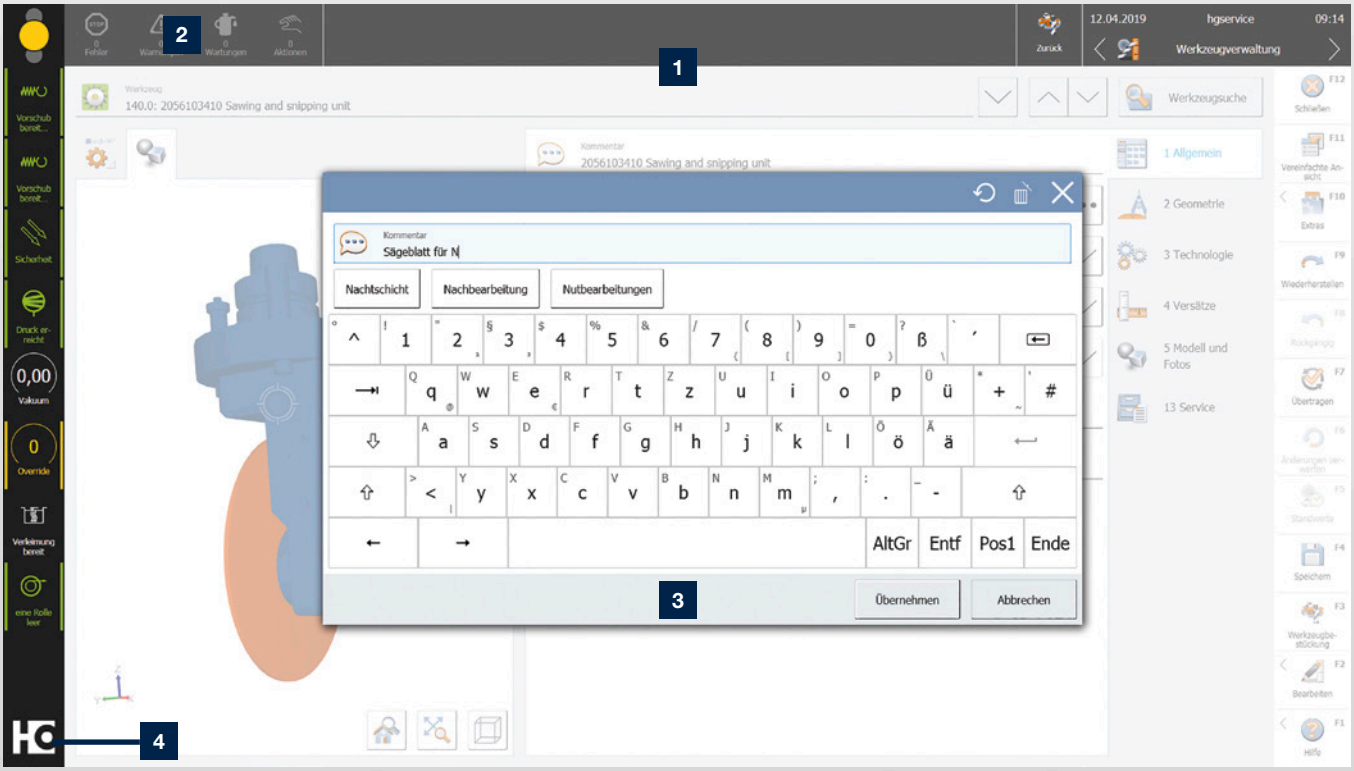
More information at digital.homag.com

The next generation of powerTouch: **powerTouch2**

Faster, more comfortable, clearer: Enjoy the benefits of our further improved powerTouch user interface. We have optimized our standardized operating concept and further adapted it to our customers‘ requirements. Controlling your HOMAG machines is now even faster and more intuitive. The new, modern design has a clear structure. The innovative touch operation allows you to achieve the desired result easily and comfortably.

With the new powerTouch generation, you can enter information at your machine even more quickly. Compared to the previous version, you can achieve a time saving of up to 30%. This is possible thanks to new features, such as automatic word completion, a pop-up keyboard that can be kept open and Windows-like functions, such as the selection of common actions directly via the start button.

Our successful powerTouch philosophy – **standardized, simple, ergonomic, evolutionary** – consistently further developed



1 **The powerTouch2 screen is clearly structured. You can see all the important information at a glance, but you still have all the details.**

2 **We have also improved the traffic light dialog further. You can now directly influence the machine‘s production readiness by selecting actions via the traffic light icon.**

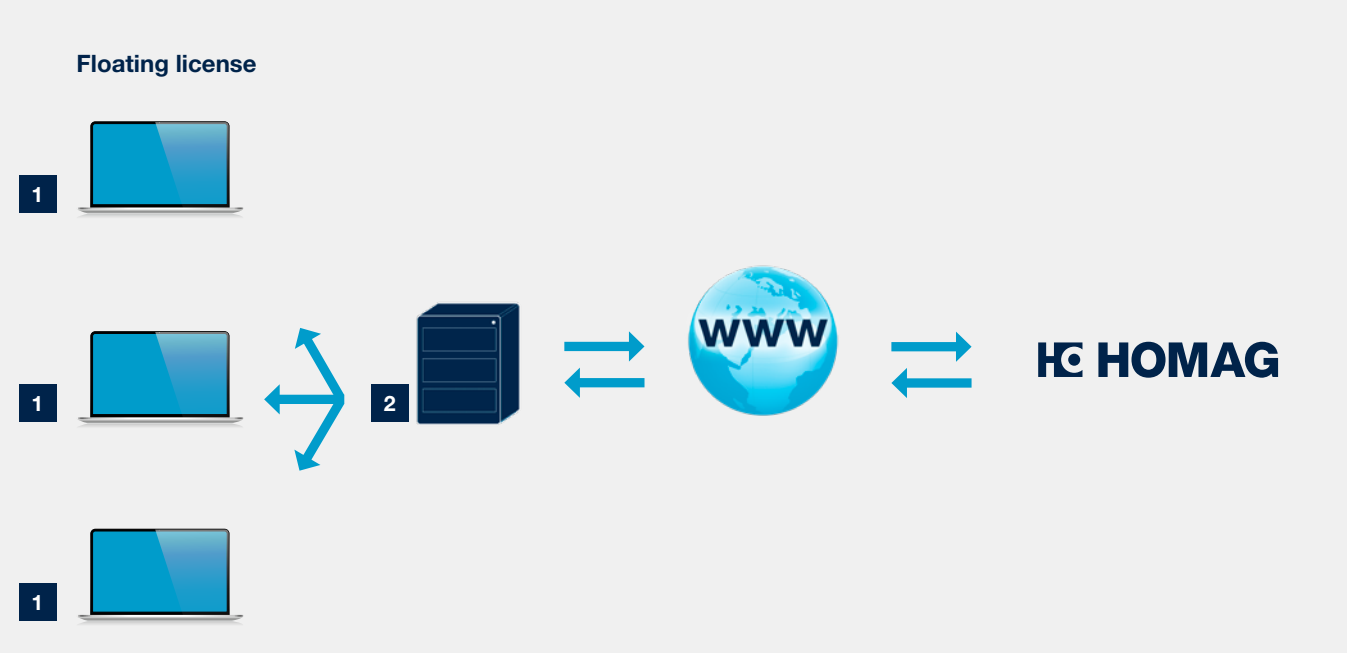
3 **A functional pop-up keyboard that can be kept open, including automatic word completion for faster entries (when you enter the first letters, frequently used applications are proposed and you can select them directly).**

4 **Enhanced “Start” menu with additional information displayed (e.g. an indication of how many messages are currently pending or status bars that show the progress of the application) and direct access to actions (e.g. confirmation of actions without having to jump to the application).**

License protection

Software from HOMAG is license-protected.
SINGLE USER LICENSE: In the case of single user licenses, each user receives a license for their workstation. If the software is to be installed on another workstation, another license must be purchased.
FLOATING LICENSE (NETWORK): Floating licenses enable the server to manage the software licenses for several users in a network.

For example, the software can be installed on six computers in a customer network, however, the license only allows three users to use the software at the same time.
If, for example, a fourth user wants to log in, they receive a notification that there are no more licenses available. However, once a participant finishes using the software, this license is made available again.



1 Client

2 Server

VALYOU

Our Mission, Your Performance.

LIFE CYCLE SERVICES

Improved performance, more efficient processes, faster help, assurance of availability and smarter workin

TEAM & COVERAGE
Largest global service network in the industry with over 1,350 personnel.

INSTALLATION & COMMISSIONING
For a smooth start, we only let proven experts manage your setup.

OPERATION & CONTROL
After teaching your personnel the intuitive control system, our clever apps help to make the operator‘s life much easier.

MAINTENANCE & SERVICING
To keep things running, we’re happy to take a preventative approach. You decide how often and how intensively you want the support to be. As we all know, prevention is better than the cure.

eSHOP & ONLINE ADVANTAGE
A few clicks and it’s fixed. Receive exclusive advantages by ordering spare parts online, depending on market availability. shop.homag.com

HOTLINE & READINESS
When there‘s an emergency, we‘re here. Direct by phone, digitally via app or video, or with on-site support. We are close to you with over 90 regional service organizations worldwide. With more than 35,000 spare parts immediately available, we can deliver 85% of your orders fast.

TRAINING & EDUCATION
With classroom, live online or eLearning training, we offer flexible options to help you get knowledge. We conduct over 4,000 customer training courses every year, and we even have our own training centers in 19 countries

MODERNIZATION & IMPROVEMENT
Our modernization program is tailored to your machines and processes. We can evaluate your data and situation and advise you on the next step.

ANALYSIS & SUSTAINABILITY
On request, we analyze all your processes with proven tools and procedures (LeanSixSigma). We have a large, certified team of experts for this purpose.

FINANCING & CONSULTING
We offer you tailor-made financing concepts worldwide. With more than 60 years of experience and a close partner network of prominent banks and insurance companies to help us to find the right solution for you, we’re always transparent and reliable in processing.

Fast support:
94% resolution rate
via our hotline

Close to you:
1,350 service experts worldwide

We get things moving:
Over 1,000 worldwide spare parts shipments each day

No one else has that:
Electronic documentation on over 150,000 machines, available in 28 languages

HOMAG Group AG
info@homag.com
www.homag.com

YOUR SOLUTION