Easy, efficient and impressive.

HC HOMAG

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

YOUR SOLUTION

Our 3D Design Software
woodCAD|CAM

YOUR SOLUTION
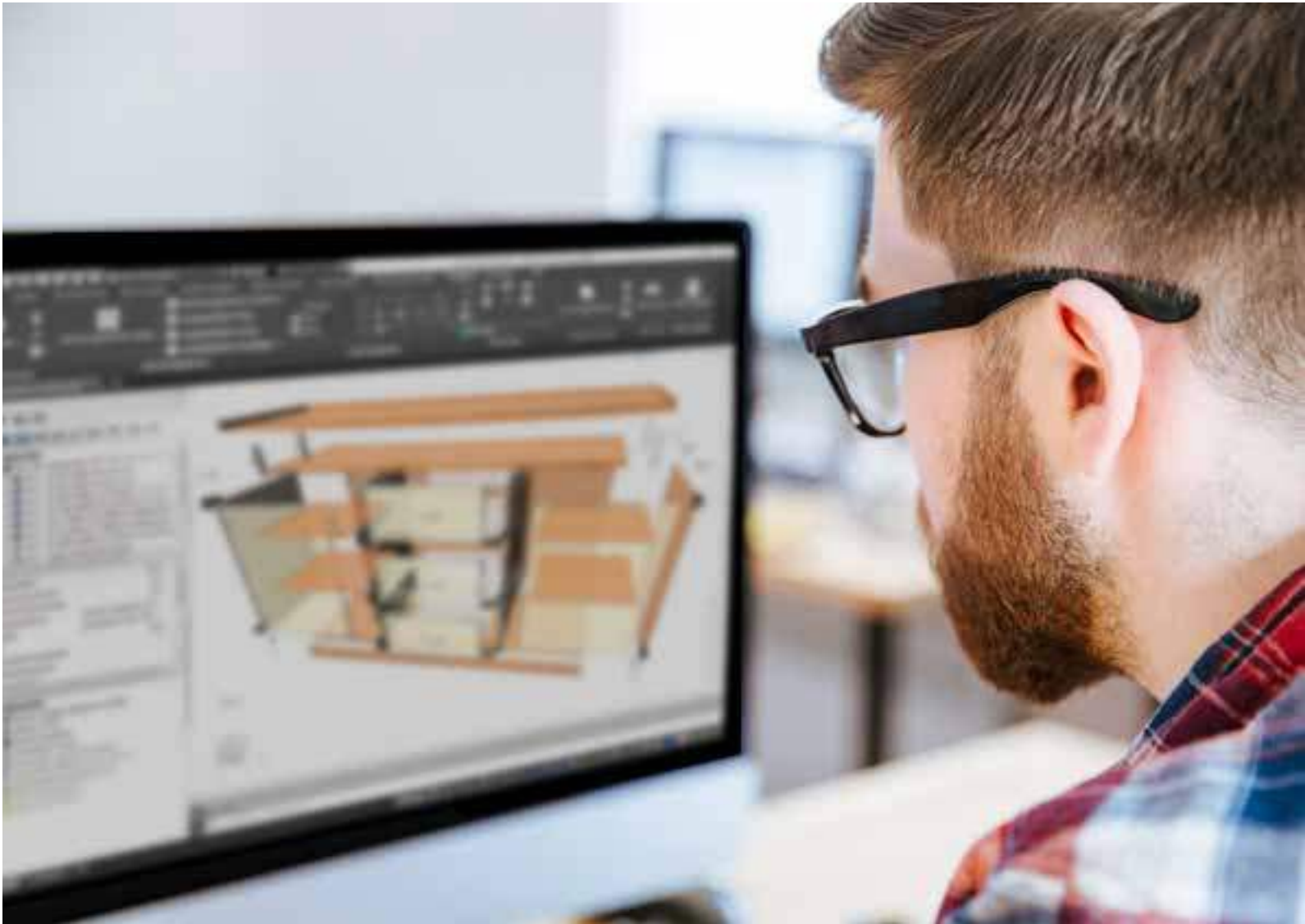
woodCAD|CAM –
3D design and production for furniture and interior fitting

Even shorter delivery times? Increasingly individualized requests? With the woodCAD|CAM 3D software, you can stay flexible and deliver your customers the high quality they demand. Because a software solution can best support your work when it covers everything: Planning and presentation, design and manufacture. It must allow changes at any time, in order to react to new requirements during the process. Based on proven CAD/CAM technology, you can achieve a work preparation time saving of up to 70% with woodCAD|CAM.

YOUR SOLUTION

MORE: HOMAG.COM

woodCAD|CAM

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Where data and ideas flow. woodCAD|CAM, the best 3D software for interior fitting

Innovative technology has long depended on traditional craft. Most operations would not be competitive if there were no connection between concept planning and finished product. woodCAD|CAM offers you exactly the flexibility you need to implement customer requirements quickly and individually, at high quality and excellent value. Whether you need to supply a single part, build an entire house or produce large quantities of parts as a large business, the right software puts you in the position to make it happen.

Perfection can be programmed

No matter how big your company or business is, with woodCAD|CAM from HOMAG, it is easy to optimize your business processes. From the first sketches to the final product, from the calculation to the offer and from the design to the CNC data generation: With woodCAD|CAM, you can optimize your work preparation processes. The benefits for you: Efficiency and safety in order processing and production. At the click of a mouse, the parts list data is transferred to the Cut Rite cutting optimization system, and CNC programs are automatically generated for your HOMAG machines. woodCAD|CAM especially supports the production of furniture designs based on

plate materials, including in the filed of kitchen, bathroom, living, office, interior fitting and shop fitting.

woodCAD|CAM understands your craft

The software even supports you in winning the order. Not only can you design individual pieces of furniture or entire rooms quickly, you can present and calculate them at just the same pace. Changes are possible at any time, including updating the offer prices. In the design phase, you add more planning detail, then the design data is automatically prepared for production and sent to the machines.

Ideal for industry

Do you produce many different variants? Do a large amount of custom designing? Then woodCAD|CAM is perfect for you. The system core is SQL database-oriented. The advantage is that design data and parts lists can easily be transferred to downstream systems. As a result, ERP systems and production controllers are well supplied.

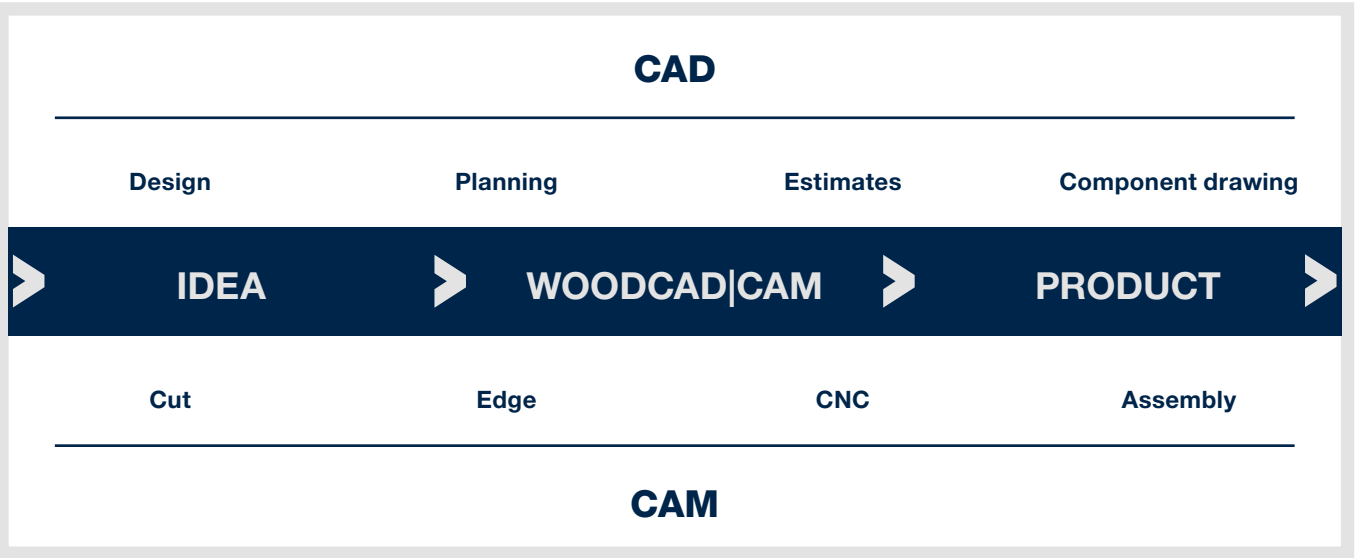**Opportunities through product flexibility**

The key functions of woodCAD|CAM are parameter-based furniture design and a direct connection to the machine technology. Production drawings and parts lists are available at the click of a mouse immediately after design, and design data is converted into NC programs and sent to HOMAG Group machines in a fully automated process. The machines are perfectly integrated in the process chain. The software turns your machine investment into a competitive advantage.

Transparency in production

While woodCAD|CAM generates production data, ControllerMES takes over production distribution with the goal of optimizing the production process. The module creates transparency and efficiency, whether it is forming production batches, reducing machine downtime or creating post-processing orders: ControllerMES represents efficient use of the installed machine base.

Using potential for sales

woodNET, the internet-based sales and ordering system, has been conceived as an integrated B2B and B2C solution for the sale of furniture and furniture parts. The software has been developed with the latest internet technology and follows the innovative approach "directly from sale to machine." woodNET connects your production potential to the market and opens up new business models.

CAD			
Design	Planning	Estimates	Component drawing
> IDEA	> WOODCAD|CAM	> PRODUCT	>
Cut	Edge	CNC	Assembly
CAM			

Customer > Design online > CAD|CAM work preparation > ControllerMES > Maschine

The software solutions woodCAD|CAM, woodNET and ControllerMES can be used as standalone solutions or in combination. The process chain "directly from the customer to the machine" can thus be closed. The modular structure also allows the software to be introduced into the company step by step.

Individual. Optimal. Automated.

CONVENIENT SALES WITH PRACTICAL EQUIPMENT PLANNING AND QUOTATIONS. Designing individual home environments? Create compelling offer documents automatically? Simply use the integrated planning module. woodCAD|CAM also provides you with many visualization options for exciting presentations. These range from colored view drawings, to 3D perspectives in shade mode, to photo-realistic renderings. And the correct sale price is always displayed during the planning phase. The advantage is that alternative offers can be created quickly and efficiently with different materials or fronts.

3D spatial planning

- With guided 3D architecture module
- Use the architect's 2D layouts

Photorealism

woodCAD|CAM has an integrated module for photorealistic illustrations. This uses the materials and colours specified in the planning or design phase.

Quotation

The shopping cart remains flexible: Change prices, add or delete products — everything is possible until the offer is printed.

Planning: faithful to details
Presentation: easy to understand

THE RIGHT MODULE FOR COMPLEX PLANNING. When the interior layout throws up a new challenge and detailed plans are needed, it helps when you know you can present to your customer clearly and thoroughly. In woodCAD|CAM, you are supported by a special architecture module. This allows quick and easy transfer of building dimensions into the CAD system. Required information such as wall thickness, wall length and room height are requested in the dialog. Windows

and doors can easily be planned in and individually adapted. Of course, the module also offers many modification functions. Especially helpful is the internal dimension module. A wide variety of requirements can be met by entering parameters, plus manual dimensions and notes can add extra information to the drawing. Sectional drawings can be generated automatically and thus help in manufacturing and assembly.

Interior design

3D walls can be created from the architect's 2D drawing by simply selecting the drawn elements. The spatial environment is completed with the insertion of components such as steps, supports and pillars. Very quickly, the user has a detailed architectural basis for the desired plan. Decoration blocks such as lights, plants, sanitary objects, devices, etc. are available to give the customer presentation a natural appearance.

Item libraries and selection

woodCAD|CAM centrally manages all library elements such as standard an special items, purchased parts and variable elements. The structure of the library can be freely defined, the contents are easy to build and expand upon during the planning process.

Individual furniture types including permitted machine deigns can be put together in a catalogue and configured using a convenient selection interface. As soon as it is fully determined, the item can then be added into the 3D room plan an positioned precisely. A powerful insertion and connection function is available.

Photorealism

woodCAD|CAM has built-in photorealistic representation, which uses materials and colors defined in the planning or design phase. In this way, the customer can create a clear picture of the product or interior layout as early as the planning phase. The remarkable effect of photorealistic representation is achieved through:

- Assignment of materials for surfaces, veneers and profiles

- Setting different light sources such as sunlight, spotlight, etc.

- Shadow and mirror calculation

- Alternatively, the data can be transferred to common rendering and animation programs via a special interface


Drawing proposal

woodCAD|CAM supports you in the preparation of genuinely convincing presentation and drawing proposals. Because with our software you have the choice of many presentation and visualization options.

- Automatically generate layout and view drawings including dimensions

- Visible textures of components can be represented easily with the coloring function

- Shaded? Realistic? X-ray? In the 3D visualization, you can choose.

Exploded-view drawing

An exploded-view drawing of every item can also be created as an assembly aid and for design documentation. woodCAD|CAM shows the items and component structures stored in the database.
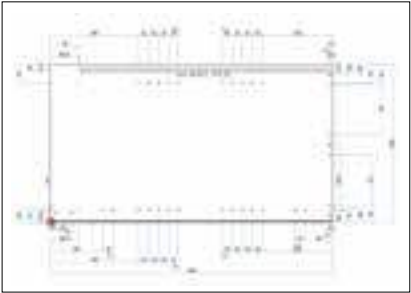
Production drawings

Component measurements mean the fully dimensioned production drawings can be produced for all components. Parameters allow you to adjust the information that appears on the drawing. woodCAD|CAM also creates associate cross-selection drawings which can be automatically updated in the case of design changes.

Your new assistant: fast, safe and reliable

SPECIALIZING IN FURNITURE CONSTRUCTION AND INTERIOR FITTING.
Work with software that is designed to perfectly meet your furniture design needs as well as the steps necessary for interior fitting. Sides, floors, frames and fills can be selected from all available materials, coatings, edges and profiles. Once created, the furniture is then designed in 3D, and no further manual steps are necessary for machine-controlled production.

> **Whether for cabinet construction, commercial construction or component production, woodCAD|CAM has tailor-made functions for all carpenters from small trade operations to large-scale production. This means that even complex furniture building tasks are highly manageable with the design tools available.**


Article Designer

The article designer is there for those designs which vary, including in their dimensions. This module meets the requirements of cabinet and commercial construction, where similar items of furniture are required with variations in size or front divisions. The article designer accesses parametric components to achieve this.
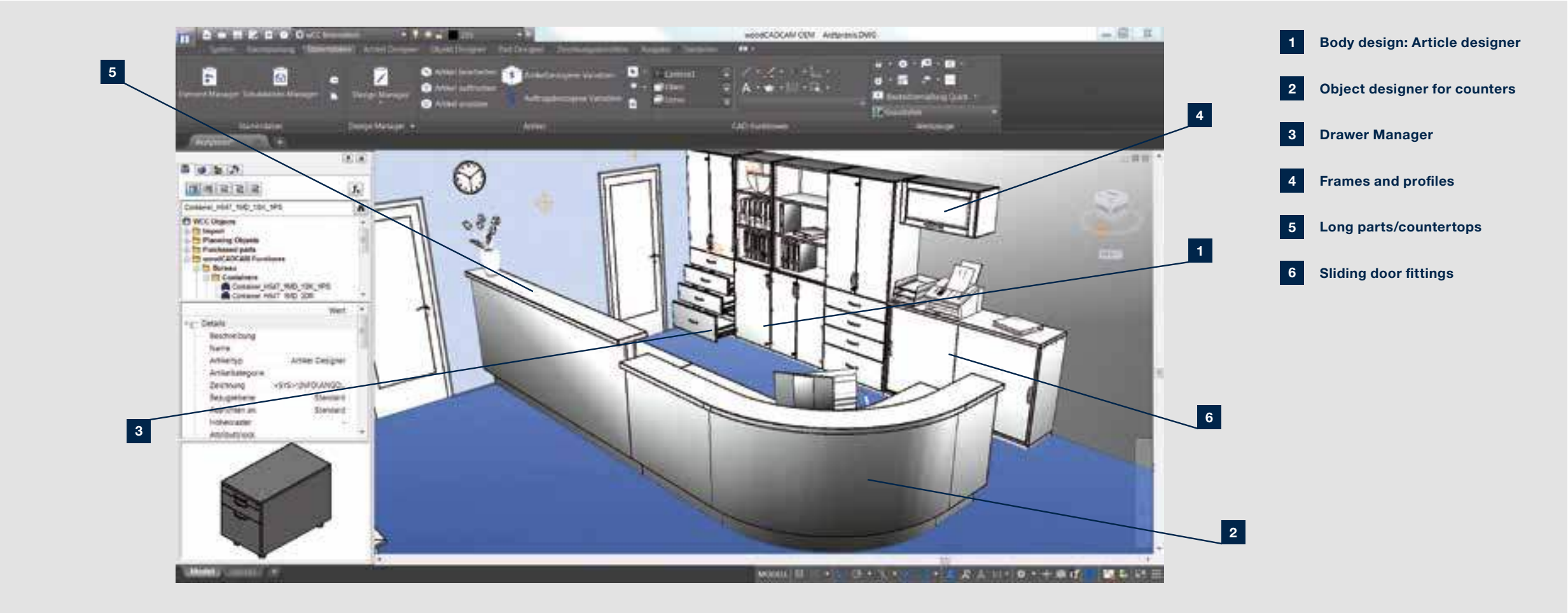

Object Designer

The object designer builds on the trained engineer's traditional 2D thinking. Component generation is based on one or more vertical sections as well as the top-down view of the design. 2D geometry data can be created with simple 2D CAD functions such as polyline. From the various 2D views, woodCAD|CAM then automatically generates the entire counter element in 3D and in full detail. If elements of the 2D drawing are changed, the 3D model can be adjusted at the click of a mouse.
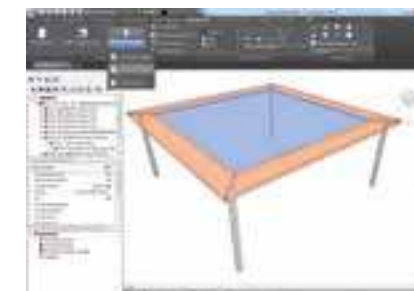
Part Designer

The part designer provides even more flexibility and individuality in 3D modeling. Individual parts are freely put together on the screen in 3D. The procedure is similar to the final assembly of a piece of furniture. Each element receives capture and identification points. Components, edges, connectors, processes, etc. can be customized interactively on the screen. Profiles, materials and fixtures will only be applied when the shape is established.

1	Body design: Article designer
2	Object designer for counters
3	Drawer Manager
4	Frames and profiles
5	Long parts/countertops
6	Sliding door fittings

Change requests? No problem!

THE INTEGRATED CHANGE AND DESIGN FUNCTIONS MEAN THAT ADJUSTMENTS CAN BE MADE TO A CUSTOMER'S ORDER EVEN WHEN THE PLANS ARE ACTUALLY READY FOR PRODUCTION. woodCAD|CAM has been programmed so that the drawings, part list data and CNC programs for all existing production documents can be checked and changed if necessary. Quickly create new articles from existing components and make use of the numerous customization and modification functions in order to change the properties of items and components. If anything is changed, the modifications are saved along with the item. This means you can carry out modifications once and apply them to items with altered dimensions.

Strips and countertops

For kitchen, interior and laboratory work, assistants are used to produce lighting strips, skirting boards and cornices as well as countertops. In this process, elements are automatically created, taken through the application-specific design principles and connectors are attached where necessary.
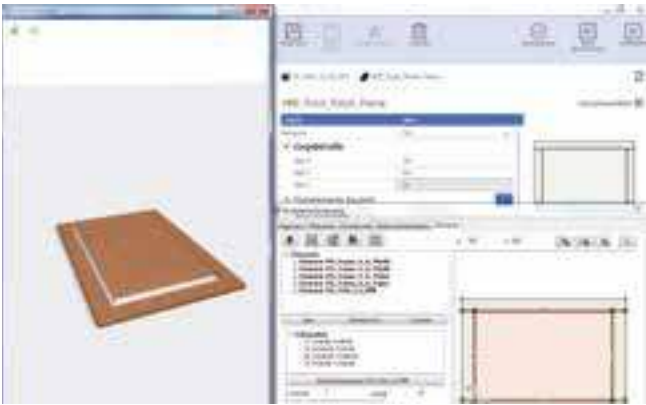
Profiles and frame components

Using the "stretchable purchased parts" wizard, designs can be created with profiles, pipe elements or connecting pieces, and either wood, metal or plastic parts used. Modules comprising several components, such as door frames, can be created quickly and easily with the "multiple components" wizard. Design is graphical and can be checked in the 3D view at any time.

Leave connections and fixtures to us

WOODCAD|CAM TAKES ON THE CHOICE OF CONNECTIONS AND COMPONENT-OPTIMIZED FIXTURES FOR YOU. All common connections for furniture and interior design are saved in the library. That means you can save time and be confident in the design process. At the same time, the necessary information is prepared in order to appear in all further drawings and parts lists. You will also save valuable time when searching for fittings. Not only does the software find the correct fittings for you automatically, but it also detects recurring installation situations.

Source: Hettich

Support with fixture selection and design

Practical: Insertion location, joints and overhangs are analyzed when the designer inserts a door. This means the correct hinge and mounting plate are positioned according to the rules. woodCAD|CAM recognizes the dependencies between the door and side elements, making the necessary constructive adjustments to the partner component.

Component-optimized fixture selection

In order to optimize connections, woodCAD|CAM automatically and dynamically searches for the right fixtures. Based on this independent search for component optimized fixtures, the system recognizes recurring installation situations and suggests the appropriate solution. woodCAD|CAM additionally offers comprehensive libraries, such as those from Blum, Hettich, Würth, Grass, Häfele and Lamello.

Available around the clock

Always on your fingertips: Catalogs of panels, materials, fixtures such as hinges, furniture connectors, drawers, folding and sliding door components as well as electromagnetic opening systems. Online you will also find complete collections of pull-out and drawer elements, which of course fit parametrically into existing designs.

**woodCAD|CAM enables quick, safe design with intelligent, parametric fixtures.**

16
Manufacturer of fixtures

24 h
available

49,000
Fixtures

Components and material structure

The element manager is the central library for the management of parametric modules, components and design rules. Parts of the current design can be dynamically adjusted at any time. Access to libraries of panels, edges, veneers, etc. is always possible. When selecting a material, the fundamental data needed to create the parts list is defined, as well as that for calculations, photorealism and production. Even complex components such as sandwich partition walls with metal studs, metal constructions for counter framework or elements of a shop fit can be stored parametrically. These components are also stored in the system. Assemblies like frame and infill designs can be defined by nesting the different components.
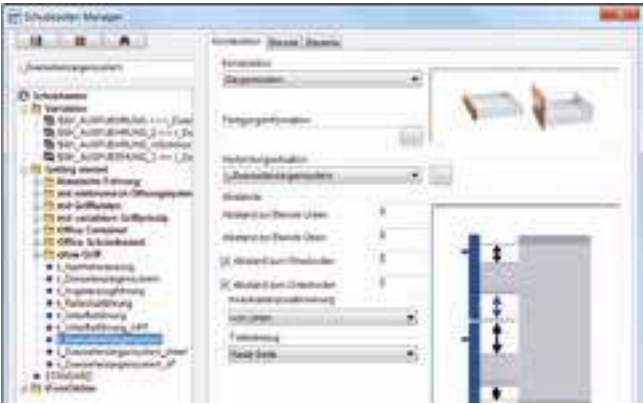
Drawer Manager

Whether frame systems, completed drawers or in-house production boxes. With the Drawer Manager you can quickly and safely implement the company's own variants. No matter which guide system, woodCAD|CAM knows the design and has already set the appropriate parameters. Day-to-day work is made easier with comprehensive libraries including connector sets from the major suppliers.

Fast access to master data and components

The element manager maintains parametric assemblies, components, design rules and master data such as materials, edges, veneers and coatings. Using favorites, the designer has constant access to the designs and materials most frequently used in production. Every newly created element is available immediately, this expands the library and future design tasks will therefore be quicker, more secure and of the same quality.

# Transparent and always up-to-date: the costs

MORE EFFICIENT AND ECONOMICALLY SUCCESSFUL THANKS TO CONSISTENT COST TRANSPARENCY.
Customers do not just want high-quality work completed on-schedule, but also for cost estimates to be met and bills to be transparent. No problem with woodCAD|CAM. You can create a quote simply and clearly based on your planning. In doing so, you can choose what to show and how to show it, whether to add a discount or offer different versions.

Manufacturing costs

When it comes to calculation of material and manufacturing costs, production times are included as well as materials. Each element in the woodCAD|CAM object structure can have its own work procedures assigned to it, with fixed and variable time shares. Using these procedures, a complete work plan is assembled that is specific to a particular order. This contains production times calculated for each production step. Exact production times and costs can then be calculated using cost centers, which contain the costs per time unit.
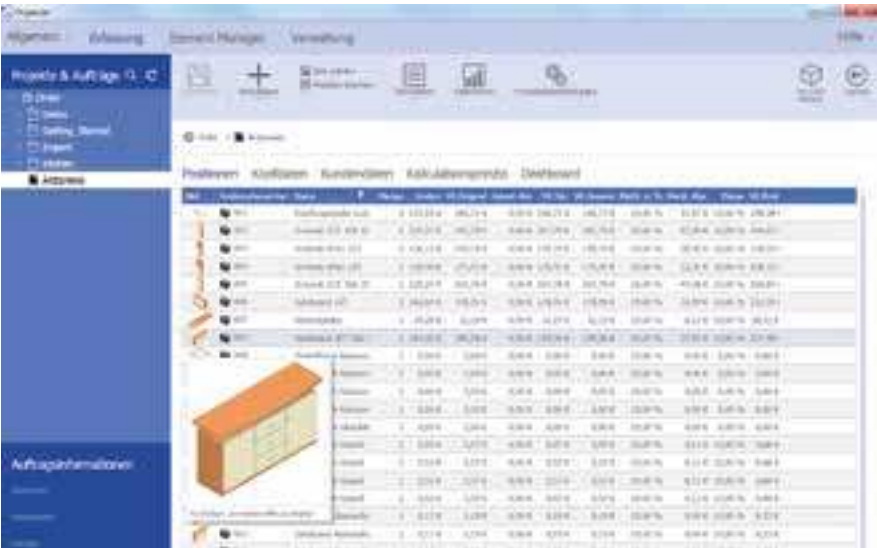

Material surcharge and item prices

In material surcharge calculations, exact quantities are recorded and then calculated with material prices and surcharges. To calculate an item price, fixed or variable prices are added together, and these can be stored with the item itself. Prices can be attached to design variants using variables, so that complex price tables can also be stored.

Project management: integrated
Parts lists: optimized

MANAGEMENT. COLLATION. PRINT. WITH WOODCAD|CAM, EFFICIENCY BECOMES NORMAL. Do you want to combine individual orders and drawings? Create detailed production orders? Sort and print parts lists?
Using the integrated project management and parts list module, you can create individual production lists quickly and efficiently. In addition, data can be transferred directly to cut optimization or the industry package.
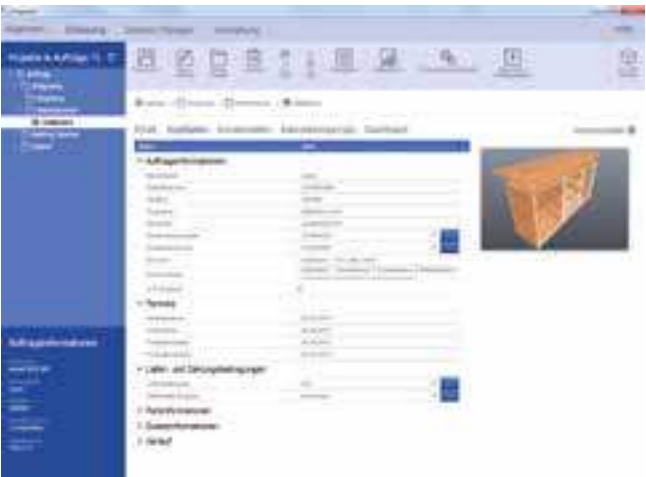
With woodCAD|CAM, work is optimally prepared for a smooth production process.
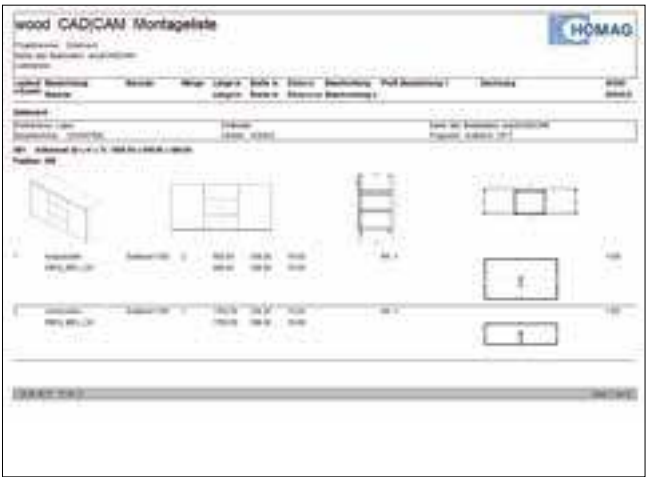
Custom production lists can be made easily.

Due to the high quality of the design and parts list data, production documents can be printed at any time at the click of a button.

Perfectly connected: CNC production

Very useful: Connection to optimization and CNC manufacturing facilities.

Production data can easily be derived from the planning and design. Technology parameters and process control can therefore be generated automatically in addition to geometric data. This makes woodCAD|CAM the foundation of the individual machine situation: The CNC connection is professional and economical, from an individual CNC machine, to a workshop cell comprising saw, edge machine and CNC, right through to a fully-automated industrial plant. Machines from other manufacturers can also be integrated

if necessary. Here, processing on a single component is split up into special programs for individual process steps according to the work plan – e.g. if components need to be processed on a CNC as well as drilling and dowelling machines. GeneratorCAM optimizes the CNC programs specifically for each machine, depending on the positioning of components in the machine, the processing order and clamping equipment. Even the assignment of tools to individual operations is automatic, so that the programs generated are always complete and can be run immediately.

> **Improve your economics with woodCAD|CAM. CNC programs are automatically generated for all parts of the job and for all machines involved in the production process.**

Barcode

At the core of CNC manufacturing is a suitable means of workpiece identification by barcode or similar. A unique part number can be generated directly within woodCAD|CAM according to freely adjustable rules. This guarantees that the component is uniquely assigned within the production process.

Creation of CNC programs

Fulfil savings potential, save time: With the generation of CNC programs. Use data and apply information where it is needed and makes sense. Our software follows these maxims. This means drilling patterns for fixtures no longer need to be created individually and the necessary CNC programs can be generated automatically. You save time for other important tasks.

Configuration of CNC data generation

The CAM manager is where data generation is configured for the relevant CNC machines, according to established rules. As well as evaluating geometric data of the components, material properties, edge overhangs, tools and technology data are also considered. The result is a CNC program capable of running directly on the machine. It already contains all required parameters such as tool selection, speed, feed rate, approach strategy, first and second processing and more.

Cutting

When cutting using the panel dividing saw, the automatically generated parts list is transferred to Cut Rite, the cut optimization software.
All labelling information is also transferred at this point:

- Unique part identification number/ barcode
- Component name
- material
- Cutting, processed and unprocessed panel dimensions
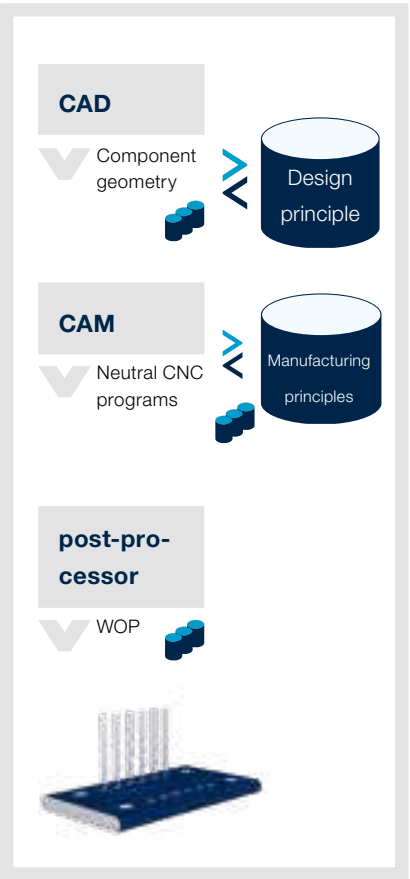- Edge information
- Order and customer data
- etc.

Multi-machine connection

If several CNC machines need to be controlled, the MultiCNC module offers a comprehensive range of functions for dividing the processing of a single component across multiple machines — depending on their specifications. This would be required if, for example, a drilling and dowelling machine were used in addition to a nesting machine for horizontal production.

CAD — Component geometry — Design principle

CAM — Neutral CNC programs — Manufacturing principles

post-pro-cessor — WOP

Planned. Sold. Built.
Everything directly on the Internet with woodNET

EBUSINESS — PLAN AND SELL FURNITURE DIRECTLY ON THE INTERNET WITH WOODNET. HOMAG is developing the Internet-based presentation and sales system woodNET, which connects internal operational processes and work preparations together with production and sales. This is the way to achieve an integrated eBusiness solution which systematically implements the approach, "directly from sale to machine."

Distribution/sales

Catalogs

Orders

Design/production