

ALPHACAM ROUTER

AN EASY-TO-USE CAD/CAM SOLUTION FOR WOODWORKING





ALPHACAM Router is an easy-to-use CAD/CAM solution for manufacturers wanting fast, efficient toolpaths and the generation of reliable, machine ready CNC code.



THE COMPLETE PROCESS...

ALPHACAM IS THE TOTAL CAD/CAM SOLUTION FOR THE WOODWORKING INDUSTRY

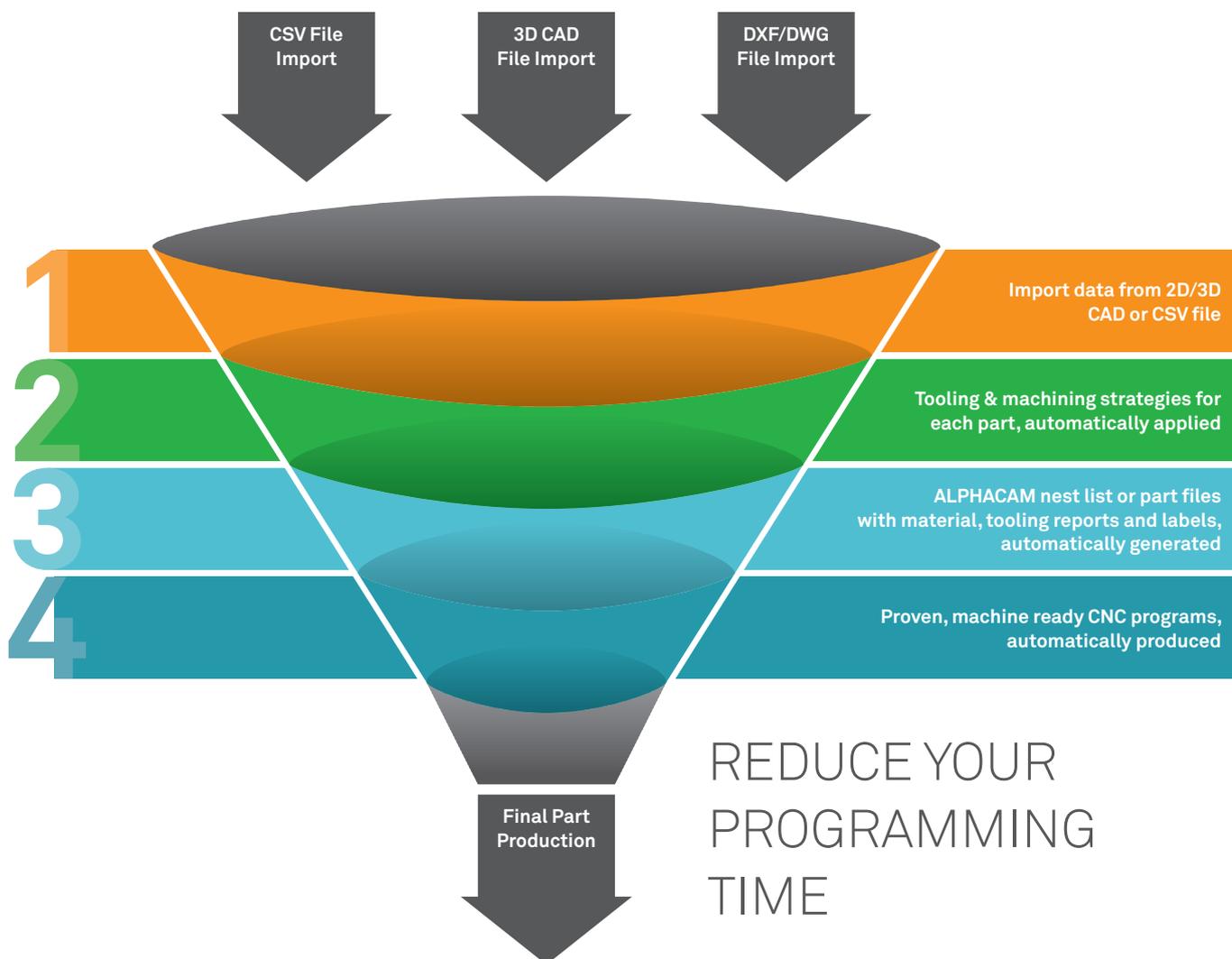
ALPHACAM seamlessly integrates both 2D and multi-axis machining, providing an extensive list of cutting strategies which can be applied to any type of component. The emphasis behind ALPHACAM is to provide customers with productivity, reliability and flexibility. This can be found in all our modules which include Routing, Milling, and Turning.

Our strength is in providing world class innovative solutions that gives you the end-user software applications that are essential to the design and manufacture of your products.



AUTOMATE WITH ALPHACAM

COMMUNICATE YOUR ENGINEERING DATA
DIRECTLY FROM YOUR CAD SOFTWARE
TO YOUR CNC MACHINERY.



Using a conventional CAM system each file would have to be processed individually by inserting the file, extracting the features, applying tool directions and toolpaths, saving the file and NC code, and then generating the required reports. ALPHACAM can do this repetitive labour intensive work automatically.

Automation Manager allows 2D and 3D CAD files, along with solid models from third party suppliers, to be batch processed, from file preparation right through to applying toolpaths, with NC code being generated automatically. In addition, the file creates a full report structure, along with part labels and bar coding.



The CNC technology together with ALPHACAM has meant we have taken massive strides forward in the production of intricate detail and reduced lead time greatly

Gerard Gill

Ashley Martin Shop Fitters



CORE FOUNDATION

All ALPHACAM modules are built using one core foundation which includes geometry creation commands. Import options for DXF, DWG, IGES and a variety of solid model formats ensure compatibility with other CAD systems.

All modules have user-defined tool and material libraries controlling many of the important machining parameters such as tool direction, automatic lead in and lead out, corner cut options (straight, roll round or loop), G41/42 tool compensation and automatic calculation of speeds and feeds.

NESTING

Nested manufacturing is made easy using ALPHACAM's automatic nesting functionality. Parts can be selected directly from the screen or as a kit; their orientation fixed, if grain direction needs to be maintained or rotated to any angle. Nesting supports tool lead in/out, support tags for small parts, avoiding loss of table vacuum and multiple depth cuts, if an onion skin is required.



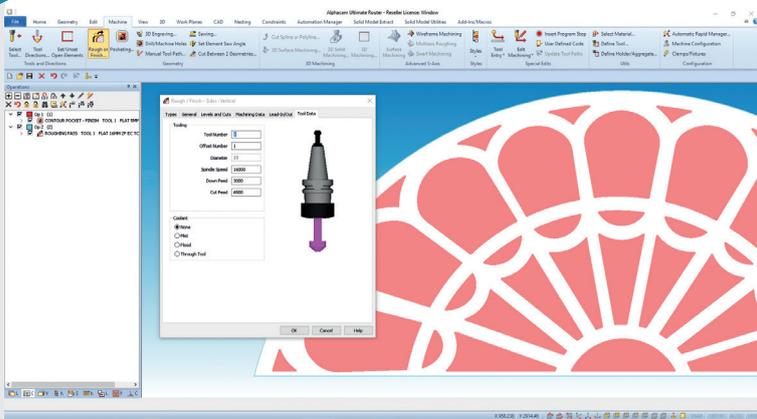
Using ALPHACAM brings substantial benefits in terms of saving time on programming and the accuracy of the toolpaths

Leigh Hunter
HySpeed CNC



Easy to use software which integrates with all our different machine controllers

Robert Glennon
Glenn Wood Tullamore



ROUTING

Ease-of-use is just one of the reasons that ALPHACAM is the industry standard and system of choice for programming CNC routers. Tooling and machining techniques unique to this industry are accommodated by ALPHACAM's dedicated Router modules.

3D ROUTING

Multiple 3D rough and finish machining strategies of surfaces, STL models and other native CAD models are available within ALPHACAM. These strategies can be applied to any work plane, allowing for 3 plus 2 machining to be programmed using ALPHACAM on machines with 4 and 5-Axis rotary heads. ALPHACAM's Ultimate module is capable of 4 and 5-Axis simultaneous machining of surfaces and 3D trim curves, often used for finishing chair backs.

POST PROCESSORS

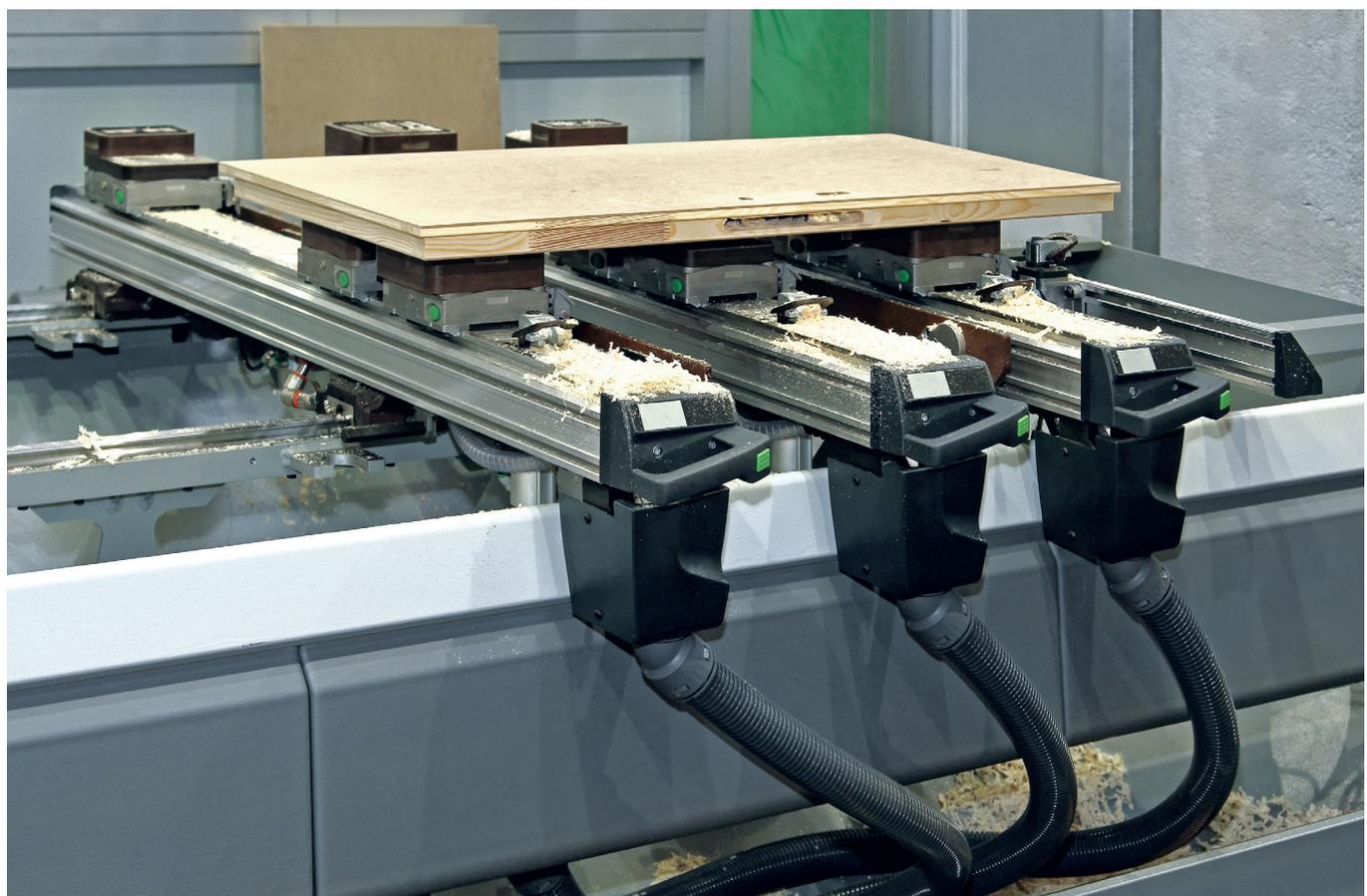
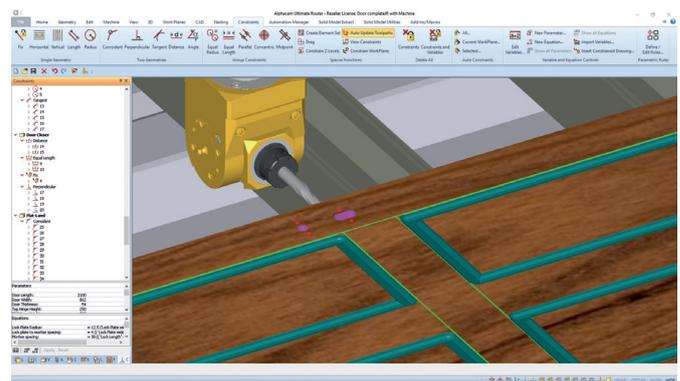
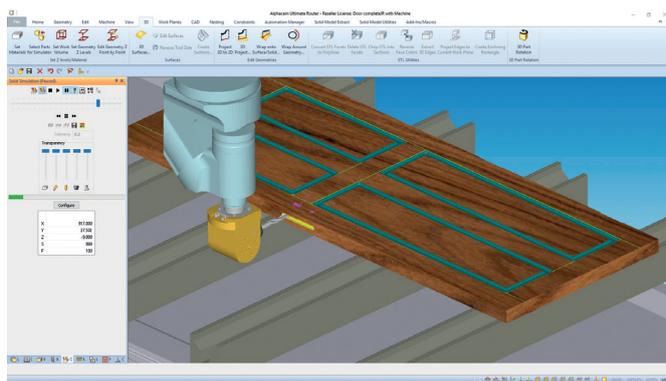
It is essential to maintain maximum machinery efficiency to ensure optimal production throughput. Having an optimised link between ALPHACAM and your CNC machines is a key component in attaining this efficiency. Having developed post processors for virtually every machine control in use today, ALPHACAM has the knowledge and experience to fine tune your CNC output ensuring maximum yield and quality in the shortest possible time.

ALPHACAM's powerful post-processing ability means that the advanced functionality of all CNC controllers is utilised, including plane rotation.

HORIZONTAL AGGREGATES

HORIZONTAL AGGREGATES FOR HINGE RELIEFS AND LOCK MORTICES ARE EASY TO CONTROL

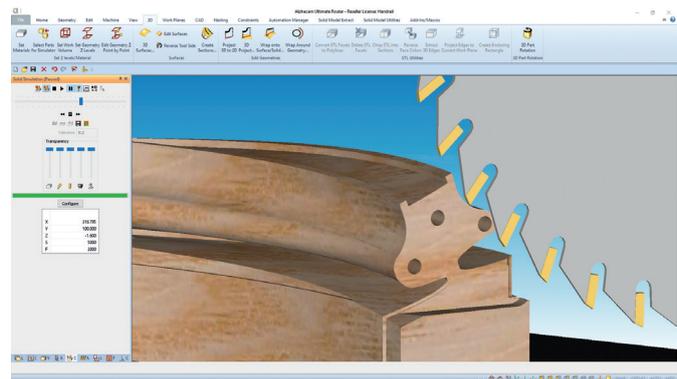
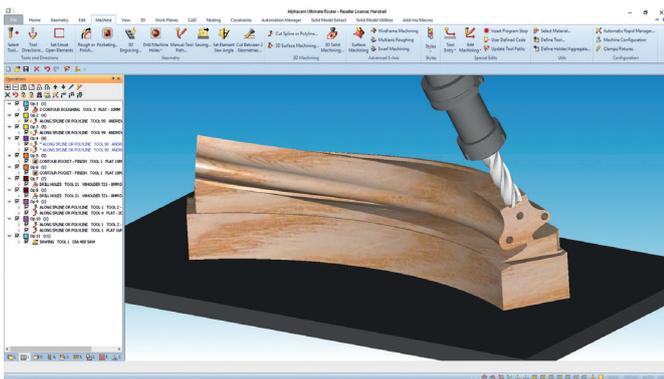
Horizontal aggregates, available on nearly all CNC routers, for machining hinge reliefs and lock mortices for example, are easy to control using ALPHACAM. Standard operations can be created and saved and inserted on to work planes when required, saving programming time.



MULTI-AXIS MACHINING

ALPHACAM SUPPORTS ROUTERS WITH FULLY INTERPOLATING 5-AXIS HEADS

Head mounted rotary axes on CNC routers can be programmed at any orientation. Aggregates with a programmable rotary axis and manual tilt are fully supported, as well as routers with fully interpolating 5-Axis heads. Safe rapid moves between planes are automatically controlled and verified using advanced solid simulation.





DEDICATED DRILLING UNIT

Drilling paths can be optimised for any drill unit using ALPHACAM's Multi-Drilling command. Holes are matched to the drill diameters and automatically machined, multiple drills are selected simultaneously when a standard 32mm pitch is matched.

3D ENGRAVING

Artwork and text can be easily created and machined using powerful 3D engraving. This command contours geometries with a form tool, and on meeting a sharp corner automatically retracts the tool to produce a sharp corner, often referred to as embossing.

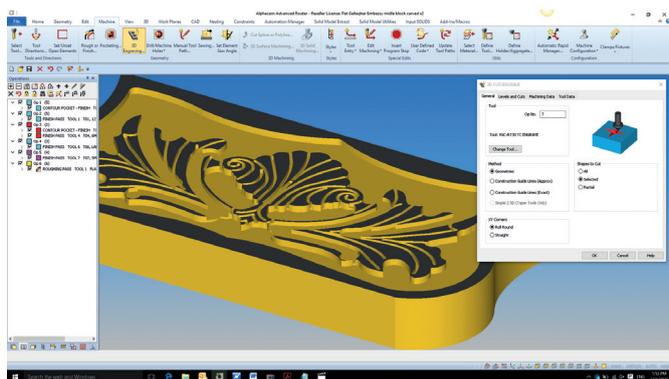
ALPHACAM ART

The easiest way to go from a 2D drawing or sketch to high quality 3D low relief and CNC toolpaths.

ALPHACAM Art, powered by Vectric's Aspire technology is 3D relief modelling and machining software for CNC routing and engraving projects such as carving decorative ornate panels and doors, swept flourishes, custom millwork, architectural mouldings, dimensional signage, bespoke company logos, jewellery pieces, custom gifts and awards.

With ALPHACAM Art, users can quickly and easily convert 2D sketches, photographs, drawings and graphic designs into unique high quality 3D carvings and designs. ALPHACAM Art has been developed to give users complete flexibility and control when designing 3D CNC projects.

Using a flexible component management logic, users can easily and interactively change the size, position, orientation and material properties of regions or individual components in a project at any time.



SOFTWARE THAT GROWS WITH YOU

- **ALPHACAM Essential** - The ideal entry level product for basic 2D CNC work.
- **ALPHACAM Standard** - The perfect product for shops and subcontractors.
- **ALPHACAM Advanced** - Targeted at the manufacturer who works with complex, free-form patterns and tools.
- **ALPHACAM Ultimate** - Adds support for full 4/5-Axis simultaneous machining for high specification joinery and furniture manufacturers.

SOFTWARE & SUPPORT

The Production has a support network of engineers who understand your business through experience. We will guide you through the modules and recommend the most appropriate combination of software, training and services that suits your needs.

SUPPORT PLAN

The financial cost of unplanned downtime can be expensive and lead to additional costs to your business. We understand it's essential to maximise productivity, which is why our support plans are specifically designed with your success in mind.

Support Portal

A highly efficient tool for contacting our experienced and knowledgeable Technical Support Team. It shows the status of current and previous cases and gives access to a comprehensive knowledge base.

eSupport

Enables our Technical Support Team to view detailed information via email relating to your queries, for a rapid and accurate response.

Telephone Support

Provides direct telephone contact to the Technical Support Team, for resolution of more involved issues.

Web Rescue

A direct PC to PC service allowing our Technical Support Team to resolve your issues.

Software Updates

Receive annual software updates giving you the latest functionality and ensuring maximum productivity and efficiency.



Hexagon Manufacturing Intelligence helps industrial manufacturers develop the disruptive technologies of today and the life-changing products of tomorrow. As a leading metrology and manufacturing solution specialist, our expertise in sensing, thinking and acting – the collection, analysis and active use of measurement data – gives our customers the confidence to increase production speed and accelerate productivity while enhancing product quality.

Through a network of local service centres, production facilities and commercial operations across five continents, we are shaping smart change in manufacturing to build a world where quality drives productivity. For more information, visit [HexagonMI.com](https://www.hexagonmi.com).

Hexagon Manufacturing Intelligence is part of Hexagon (Nasdaq Stockholm: HEXA B; [hexagon.com](https://www.hexagon.com)), a leading global provider of information technologies that drive quality and productivity across geospatial and industrial enterprise applications.

-  COORDINATE MEASURING MACHINES
-  3D LASER SCANNING
-  SENSORS
-  PORTABLE MEASURING ARMS
-  SERVICES
-  LASER TRACKERS & STATIONS
-  MULTISENSOR & OPTICAL SYSTEMS
-  WHITE LIGHT SCANNERS
-  METROLOGY SOFTWARE SOLUTIONS
-  CAD / CAM
-  STATISTICAL PROCESS CONTROL
-  AUTOMATED APPLICATIONS
-  MICROMETERS, CALIPERS AND GAUGES
-  DESIGN AND COSTING SOFTWARE