

Alphacam Art

Alphacam Art - CNC Routing For Artists & Ideal Jewellery Cad Cam Software

Alphacam Art combines Vectric's Aspire artistic design software with the market leading Alphacam manufacturing software.

Alphacam Art is a full featured, easy to use solution for users wanting fast creation of 3D relief models with quick, efficient tool path creation and the generation of reliable, machine ready CNC code.

Who should use Alphacam Art?

- ◆ Wood carvers
- ◆ Sign makers
- ◆ Furniture manufacturers
- ◆ Cabinet makers
- ◆ Solid Surface Fabricators
- ◆ Engravers
- ◆ Model makers
- ◆ Jewellers
- ◆ Architectural model makers
- ◆ Schools, Colleges & Universities
- ◆ 3D Sculptors and Artists

Key design features:

- ◆ 2D Drawing and Layout Tools
- ◆ Import 3D Clipart & Mesh Models
- ◆ Build 3D Shapes from Vector Outlines
- ◆ Interactive Sculpting & Blending
- ◆ 3D Surface Textures from Images
- ◆ 3D Component Manager

- ◆ Seamless integration to manufacturing environment
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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. Alphacam Art's unique 3D component construction tools make it easy to work with existing 3D models and to design your own 3D shapes. 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.

Design to CNC

Designing and machining 3D projects such as fantastic signs, beautiful custom furniture or decorative carvings with Alphacam Art couldn't be easier. Simply create your 2D design using vector drawing tools or import designs from other drawing packages and then build 3D shape for your design with the powerful modelling tools. When you are happy with the 3D model create the toolpaths for your CNC machine using Alphacam and turn your design into reality. Whether it's high volume production runs, bespoke decorative pieces or simply cutting parts for friends and family on a home built CNC machine, Alphacam Art includes the tools needed to get the job done easily and quickly. Projects can be drawn directly, imported from graphical drawing packages such as Corel Draw or AutoCAD and from scanned image files and photographs such as jpg and bitmap files. Designs from standard clipart libraries such as Vector Art can also be directly loaded and machined. Alphacam Art includes standard drawing and layout tools

for converting images into machinable geometry, adding borders, scaling, sizing and positioning. Drawings that may take many hours of editing in other packages can very often be machined in minutes using Alphacam Art.

Key manufacturing features:

- ◆ Advanced 2D and 3D roughing and finishing cycles
- ◆ Optimised drilling cycles
- ◆ Automated programming using “machining styles”
- ◆ Tool path simulation & full machine tool model simulation
- ◆ Tool path collision checking
- ◆ Automatic nesting of dissimilar parts
- ◆ Fast, accurate generation of CNC code
- ◆ Modules available for 4 + 5 axis simultaneous machining

3D Modelling

- ◆ Split a 3D model into independent components for editing, using a simple open or closed vector to define the split line.
- ◆ New component creation and management from within the modelling tools forms.
- ◆ Two rail sweep options to sweep between nodes and fill centre.
- ◆ Consolidate multiple components into a single component using the new Bake command.
- ◆ Increased speed, efficiency and surface quality in 3D sculpting.
- ◆ Automatically create vector boundary from a component.
- ◆ Trim one component against another.
- ◆ Shape calculation algorithm up to 4x faster on multi-core processors.
- ◆ Move, scale, rotate vector while applying shape to update it in 3D automatically.
- ◆ Import / Export 16-bit greyscale images as components for higher quality laser machine output, file exchange with 3rd party paint tools and satellite imagery.

3D Shapes from Vector Outlines

Instantly add 3D shape to closed vector shapes with options for working with Curved, Angular and Flat Planes. Add, Subtract or Merge regions to quickly build 3D shapes. Convert a 3D region into a component that can be independently modified - moved, rotated, scaled, stretched, tilted and faded at any time. Create realistic 3D shapes using the interactive Tilt and Fade tools that make it very easy to experiment with shape and angle combinations while constructing a project, with the results being instantly updated in the 3D view. 3D design preview instantly updates the model while experimenting with different shapes, heights, tilts, fades and combination modes. Showing clearly what the result will look like without having to guess and make iterative changes.

Interactive Sculpting & Blending

Powerful 3D Sculpting tools provide total flexibility when modifying designs. Models can be manipulated like a piece of virtual clay to smooth out edges and discontinuities, as well as to add extra detail, all helping to create that authentic 'hand carved' look for your models. Interactively modify 3D designs using the sculpting tools with control over brush size and strength, plus options to, Smooth, Smudge Deposit, Remove, Erase with options to raise, lower or blend the changes.

Alphacam Machining

Alphacam is a completely integrated CAD/CAM Solution that works with a wide range of companies within the wood working industry. From small niche joinery companies which manufacture custom and intricate products, to large, mass production players. Our systems are best-in-class and are integral to the success of thousands of companies around the globe. Alphacam offers a multitude of applications for doors, windows, cabinets, stairs and panels. Anything from 2D fascia doors to countertops to complex 5-Axis stair handrails can be produced easily and quickly. Alphacam has such flexibility that we are bound to have a solution for your needs, whatever they might be.

Alphacam's ongoing program of development and enhancement ensures it not only keeps pace with the changing needs of users throughout the woodworking industry, but also delivers maximum return on your CAM investment. Alphacam also incorporates Microsoft's Visual Basic for Applications and is suited for those that can utilize Alphacam's add-on or custom built applications and automation tools.

