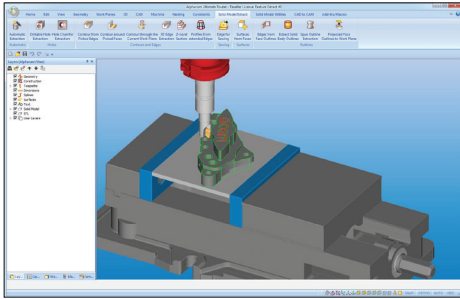# Alphacam

Machinist

Alphacam is a leading CAM solution for milling, routing, turning, profiling and wire eroding, from 2-Axis through to 5-Axis programming. The emphasis behind the development of Alphacam is to provide our customers with productivity, reliability and flexibility.
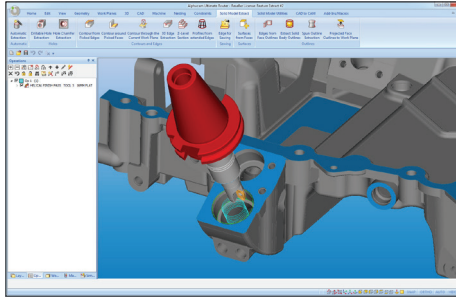
alphacam

Core Foundation

All Alphacam modules are built using one core foundation which includes geometry creation commands such as line, arc, circle, rectangle, polygon, ellipse, spline and polyline together with surface creation options. Other features include intelligent snapping functions such as end, mid, centre, intersect, tangent, quadrant and auto.

Import options for DXF, DWG, IGES and a variety of solid model formats ensure compatibility with other CAD systems. There are also various geometry editing functions including undo, redo, move, copy, rotate, mirror, scale, break, trim, explode, join, extend, fillet, chamfer and offset.

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.
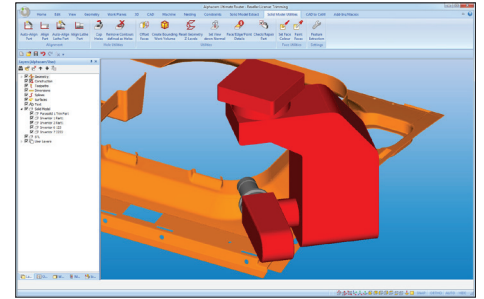
Advanced Mill

Renowned in the metalworking industry for ease-of-use, Alphacam can contour, pocket, engrave and hole-drill complex parts. Functions such as 2.5D multiple depth cutting, pocketing with an unlimited number of islands and tool radius compensation can be controlled using its intuitive user interface.

Advanced Mill even offers roughing and finishing strategies for complex 3D surfaces, STL and solid models. With its powerful post-processing ability, Alphacam can generate NC code for any machining centre.
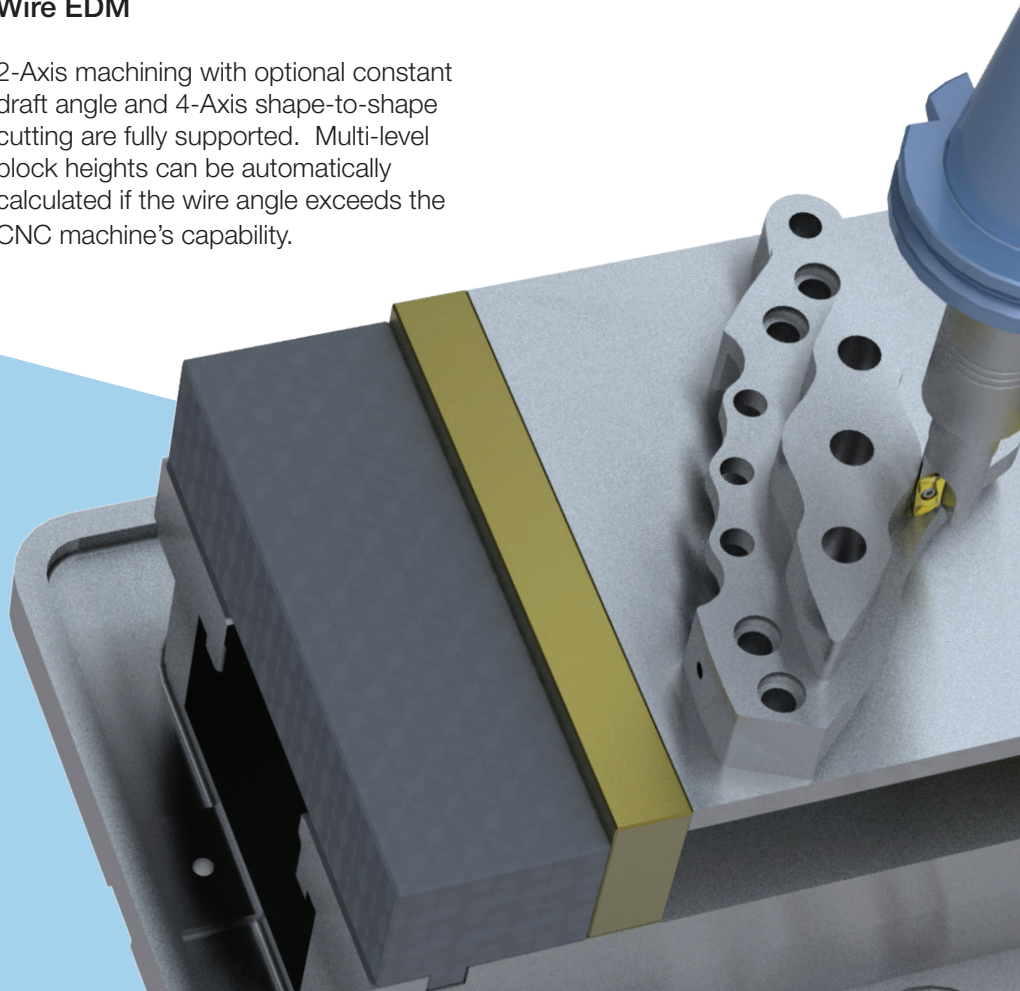
Wire EDM

2-Axis machining with optional constant draft angle and 4-Axis shape-to-shape cutting are fully supported. Multi-level block heights can be automatically calculated if the wire angle exceeds the CNC machine's capability.
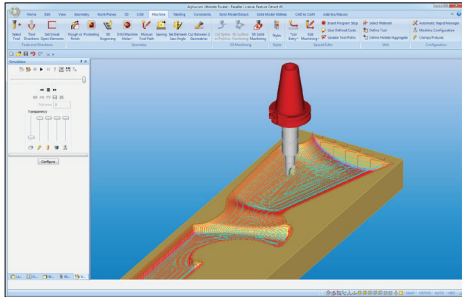
Multi-Axis Machining

Work plane support for machining centres with 4 and 5-Axis indexing capability is made simple with Alphacam. Parts can be dragged and dropped onto a fixture, their datum set and machining sequence automatically optimised.

The advanced solid simulation, with full machine build, within Alphacam means that the tool path can be verified before it reaches the machine tool. Clamp and fixture collision detection, support for work co-ordinate offset tracking and plane rotation means that the NC code generated is right first time.
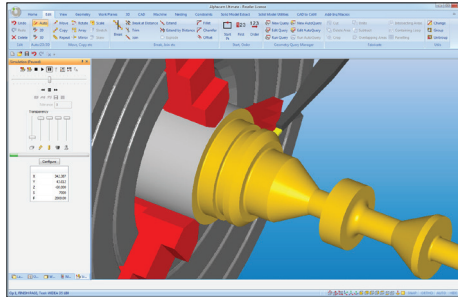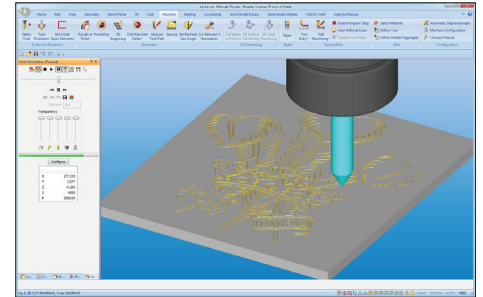
PART OF
HEXAGON

3D Milling

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 4 and 5-Axis indexing machines. Alphacam's Ultimate module is capable of 4 and 5-Axis simultaneous machining of surfaces and 3D trim curves.

Turning

All standard 2-axis turning operations are quick and easy to generate using Alphacam, with support for both linear and canned cycle NC code. Along with an extensive standard library, any shape and size tool can be created within Alphacam, the tip and holder of which are constantly checked to avoid fouling of the part.

Both twin turret and sub-spindle operations are supported by the Advanced Lathe modules to which automatic and manual synchronisation can easily be applied. From simple 2D slots and holes to the simultaneous 5-Axis machining of complex 3D surfaces and Solids using driven tools, Alphacam makes it easy.

3D Engraving

Artwork and text can be easily created and machined using Alphacam's 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.
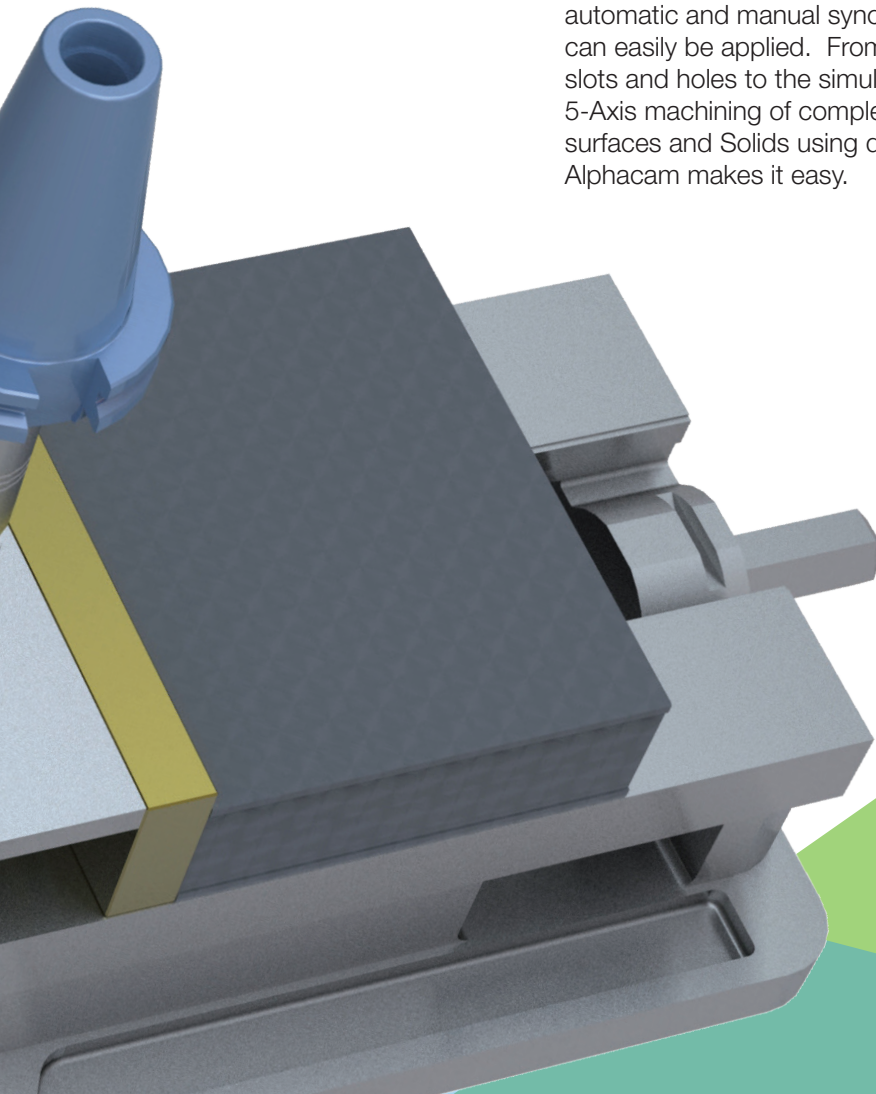
Profiling

Automatic nesting of parts, for sheet optimisation, is just one of the reasons why Alphacam is an excellent tool when profiling using lasers, water-jet and plasma cutters. Links to machine-specific technology tables are made easy using Alphacam's powerful API and fully integrated Microsoft® VBA. 5-Axis support for planar contouring and drilling as well as simultaneous machining for trimming are all supported by Alphacam.

Post Processors

With manufacturers facing ever increasing global competition, it is essential to maintain maximum machinery efficiency to ensure optimal production throughput. Having an optimised link between Alphacam and your CNC machines, through the use of post processors, 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
5 Boulton Road
Reading
Berkshire
RG2 0NH
GL50 3AW
United Kingdom

Tel. +44 (0) 1189 226677
Email. info@alphacam.com
Web. www.alphacam.com

alphacam

What others have to say ....

" I've been using Alphacam for more than 20 years and it gets better and better. "

Mark Durey - Cutting Room Partner

" We place a great deal of emphasis on developing our in-house skills and, in this respect, we have been impressed by the training and support we've received from Alphacam. "

Bill Taylor - Sunseeker

" I looked at many systems before selecting Alphacam, but I made the best choice, and if I had my time over again I would select it again. "

Budd Boulton - Quick UK

" Alphacam.... state-of-the-art software. Seamlessly, accurately and speedily manufacturing high quality parts for our aerospace, motor sport and satellite customers. "

Kevin Stockwell - Leemark

vero
Software