NCG CAM Solutions Ltd.

PRESS RELEASE

NCG CAM V10 is Officially Released
Download a Demonstration Version Now

NCG CAM Solutions Ltd, UK officially released NCG CAM V10 on 23rd July 2010. This major release includes multi-tasking capability enhancements, a new feature for roughing with solid carbide cutters, a new optimised algorithm for rest roughing and faster rest finishing. Machine tool simulation has also been added to the 5-axis module. NCG CAM V10 is available as 32-bit and 64-bit versions.

A demonstration version of **NCG CAM V10** is now available to download - http://www.ncgcam.com/demorequest.html.

The **NCG CAM** kernel was first written 14 years ago and was one of the first CAM systems to utilise multi-threading capabilities. Parallel processing in **NCG CAM** V10 improves the use of CPU's further still, by significantly speeding up the calculation time, enhancing the multi-threading capabilities.

Almost all PC's today will be dual core, if not quad core and so support parallel processing. Basically, this means that your PC could typically support between 2 and 8 CPU's in one form or another, although you could have 16 or more CPU's on a high end PC.

NCG CAM now utilises this parallel processing facility. For example, when calculating rest finishing passes, rather than using a single processor, **NCG CAM** will spread the calculation among all the available processors. Benchmarks have shown rest finishing to be up to 300% faster with 4 processor PC's and up to 400% faster with 8 processor PC's!! These improvements are especially beneficial for large parts, such as large automotive components.

Adaptive area clearance is a new feature added to the basic module of **NCG CAM** V10. Adaptive area clearance eliminates full width cuts using a concept similar to trochoidal milling.

This unique cutting technique is aimed towards high speed machining with solid carbide cutters. It provides the ability to safely cut using the full length of the flute at the optimum cutting speed for the material and part. Tool wear is spread evenly, cutting more on the flute than the bottom of the cutter, reducing deflection and the potential for

vibration by maintaining a constant load on the cutter. The technique is particularly suitable for cutting hard materials and also some electrode manufacturing. The cycle automatically adjusts the toolpath for efficient and safe machining, improving cutting conditions and allowing more consistent and possibly higher machining speeds to be maintained.

As well as significantly improving tooling life, adaptive area clearance can reduce machining time by an average of 25% over conventional roughing as the machine uses the full flute length of the cutting tool, and the machine runs at the optimum speed without exceeding its limits at an isolated point.

The linking order is very important, so the linking is done at the same time as the passes are calculated. After each level has been cleared using all the flute length, additional passes can be made to reduce the size of the terraces on the 3D form.

These additional passes will be either profile or clearance passes as required, depending on the material remaining or the shape of the part.

A new, highly optimised algorithm for calculating the rest roughing is now included in the basic module of **NCG CAM** V10. This new algorithm gives a speed improvement of more than 4 times across a wide range of example parts. Speed improvements are greater still on some larger jobs.

Recent improvements to **NCG CAM** have made the rest finishing complete in 50% of the time, when supporting tool-holders. Combined with the use of parallel processing, the speed increase is even greater. Benchmarks show a speed increase by up to 10 times can be seen, when comparing with **NCG CAM** V9 running on a 8 processor PC.

Machine tool simulation has been added to the 5-axis add-on module and is now included as standard. The machine tool simulation allows the user to simulate the machine movement. This is generally very important for 5-axis toolpaths, where it is often difficult to visualise the real position of the machine when animating the toolpath. By running the toolpath through the machine simulation, you can be sure there will be no collision between the machine head and the bed/table of the machine.

Like the toolpath animator the user can control the simulation speed, zoom in/out. Should there be a collision, it will be highlighted graphically and a dialogue is displayed to inform the user.

First of all, the basic machine needs to be modelled up. The simulation will then check that the head of the machine will not collide with the work piece or bed of the machine tool. The machine tool simulation is also able to simulate the stock being removed pass by pass.

About NCG CAM Standalone 3D HSM CAM Software

NCG CAM HSM CAM software is an easy to use stand-alone CAM system that integrates with existing CAD and CAM systems.

NCG CAM boasts many innovative features. It is suitable for all types of forms, creating an optimised, smooth cutter motion for 3D HSM machining, while helping to extend tool life, minimising wear on the machine tool and producing parts with excellent surface finish.

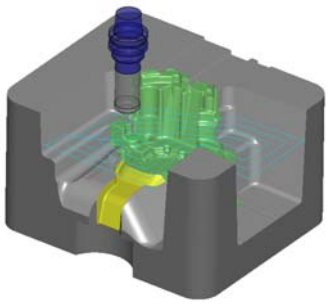
NCG CAM has a very user-friendly interface, with a typical learning curve of just 1 day is required to machine a live job. It is perfect for the high-speed machining of moulds, dies, prototypes and precision surface machining.

Features

- Very user friendly interface – making it suitable for even occasional users
- **NCG CAM** offers many advanced 3D machining routines, rest roughing & 3 + 2 capabilities for all toolpaths, simultaneous 5-axis add-on module available
- Fast and efficient roughing strategies, including core roughing
- Advanced drilling routines – includes automatic hole detection and / or user defined holes
- All machining routines are fully gouge protected for both the cutter and the tool holder
- Rest area option for finishing strategies to minimise any air cutting
- Available as both 32-bit & 64-bit versions

Key Benefits:

- Stand alone CAM software that is compatible with ***ANY*** other CAD package
- Extremely easy to use with just 1 day's training required to machine a live job
- Ideal for shop-floor programming
- All post-processors are written in-house
- Powerful 3D machining
- Toolpaths optimised for HSM machining
    - Increased efficiency
    - Reduced wear on machine
    - Extended tooling life
- Saves time and money!



A demonstration version of the **NCG CAM** software, is available to download - http://www.ncgcam.com/demorequest.html . The demonstration version of **NCG CAM** has unlimited usage and while there are restrictions to the machining output, it can also be used in its basic form as a ***FREE*** .iges viewer.

About NCG CAM Solutions Ltd

Established in Cambridge, UK, **NCG CAM Solutions Ltd** provides CAM software solutions, offering all the tools needed to manufacture prototypes, models, moulds, dies, patterns and finished products. Our specialist area is 3D HSM CAM with our product **NCG CAM**.

All of our staff have a wealth of CAM experience, having worked in the CADCAM and engineering industry for many, many years. This includes our support team who have actually worked on the shop-floor using CAM software on live jobs, so are able to provide an excellent back up and support service for the software.

Since establishing in June 2009, NCG CAM Solutions Ltd have a rapidly growing global reseller base, with resellers for NCG CAM in UK, Germany, Italy, Benelux, Slovenia, Slovakia, Hungary, Czech Republic, Romania, Bulgaria, Serbia, Croatia, Poland, Turkey, Greece, Middle East, India, Russia, China, Japan, Korea, Australia, Mexico and across USA.

To contact a reseller or to download the demonstration version of **NCG CAM**, visit www.ncgcam.com . Alternatively contact Estelle Dunsmuir for more information – estelle@ncgcam.com or call +44 (0)1223 863911 / +44 (0)1353 699840.

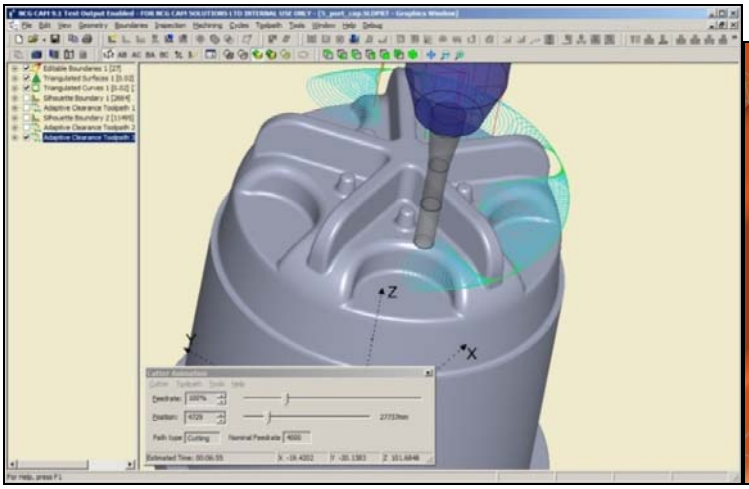
(ENDS)

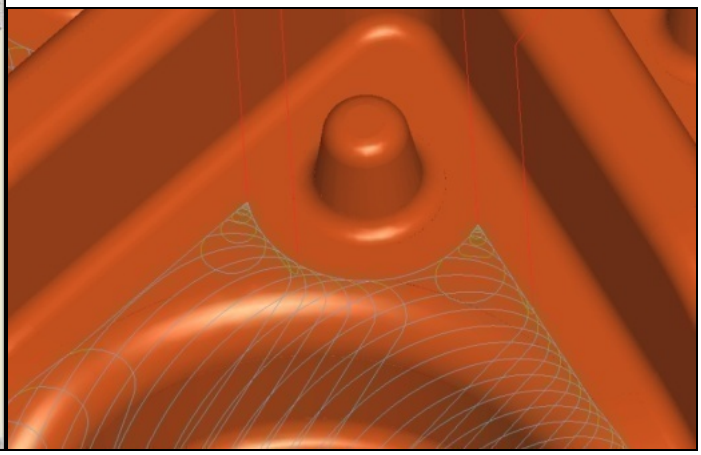
NCG CAM Solutions Ltd, Silverwood Lodge, Ely Road, Waterbeach, Cambridge, CB25 9NN, UK

Tel: +44 (0) 1223 863911 / +44 (0)1353 699840
Website: www.ncgcam.com / Email: estelle@ncgcam.com

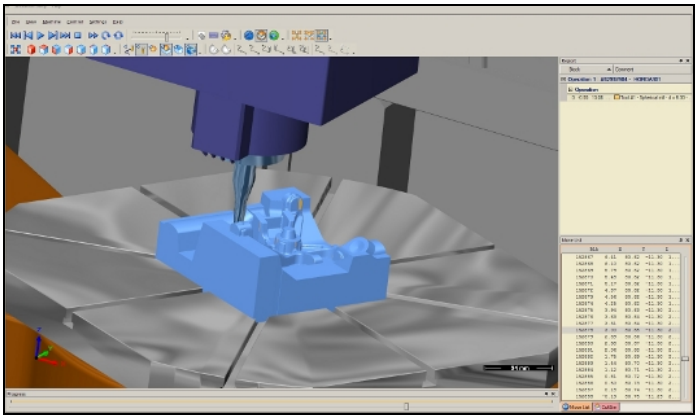
Contact: Mrs Estelle Dunsmuir, Distribution & Marketing Manager

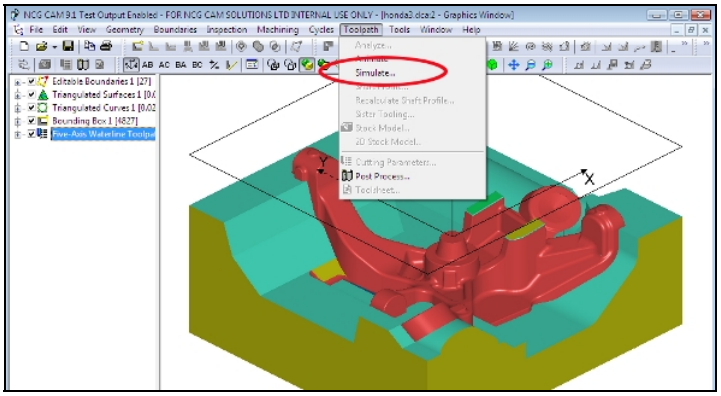
Pictures – NCG CAM V10



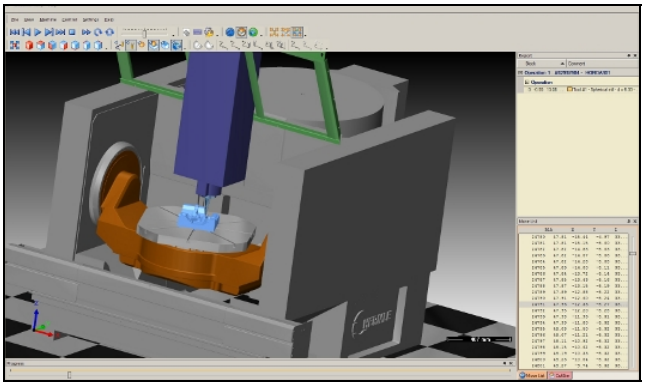


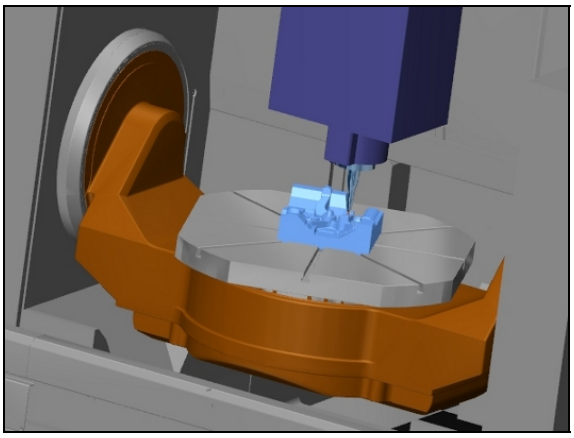
Above – Adaptive Area Clearance *- All the machining moves have lead in/out arcs to maintain a smooth machine motion. The cutting moves are also smooth, flowing profiles without sudden changes of direction.*





Above - Machine Tool Simulation Added to 5-axis *- The general machine simulation user interface*





Above - Machine Tool Simulation Added to 5-axis *- Zoomed in view of the machine simulation with some of the machine removed for clarity*