

NCG CAM – What's New in Version 17.0

NCG CAM Solutions Ltd, UK officially released NCG CAM v17.0 on 21st October 2019. This major release has a new look, with a New Modern User Interface. New features include Dynamic Material Removal, Drilling - Sequences of Operations, Along Curve Passes Displaying Cutter Compensation, Along Curve Passes – Gouge Protection, Export Option Settings, Local Datum - Local Coordinate System, Project a 2D Boundary onto the Surface, and significantly Improved Graphics Performance.

Further new features including, Surfaces - Create a Patch from Two 3D Curves, and Rest Finishing – Support Toroidal Target Cutters, will follow on in a v17 point release.

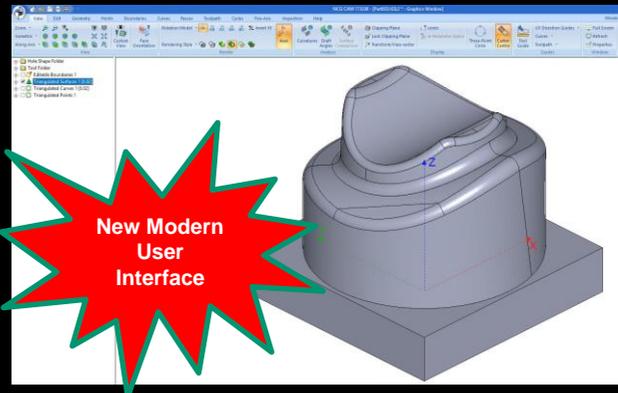
A demonstration version of NCG CAM v17.0 is now available to download:

<https://www.ncgcam.com/demo-download/>

Modern User Interface

The basic style of the NCG CAM User Interface has remained unchanged since this CAM software was first produced 23 years ago.

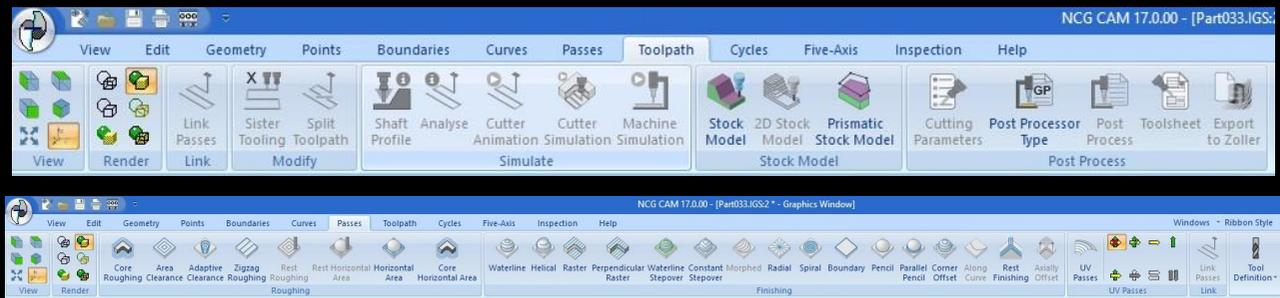
The NCG CAM v17 User Interface now has a Ribbon Design.



Above – New Modern Ribbon-Based User Interface in NCG CAM v17.0 – View Tab

Ribbons are the modern way to help Users find, understand, and use commands efficiently. The command bar organises the program's features into a series of tabs at the top of a window; because of the ribbon layout it should be easier for the User to discover new features and functions. All the icons have been redesigned, which adds to the totally fresh new look and feel of the software.

For Existing Users; there is currently a button which will allow them to revert to the Original User Interface. This gives Users the ability to keep up with their existing workload and migrate to the new User Interface as time permits.



Above – New Modern Ribbon Design User Interface in NCG CAM v17.0 – Toolpaths & Passes Tabs

See NCG CAM at DMG MORI Open House

NCG CAM Solutions Ltd is participating in the DMG MORI Open House at their UK Office in Coventry.

Dates: 15th – 18th October 2019

Live machining on a DMG MORI CMX 800v

Iscar tooling and NCG CAM software



Interested in attending?

Contact Estelle for more information: estelle@ncgcam.com

See new
NCG CAM
v17.0 in UK

S.T.F. Spa Increase Efficiency & Productivity by Utilising 2 Seats of NCG CAM for Mould Tool Production

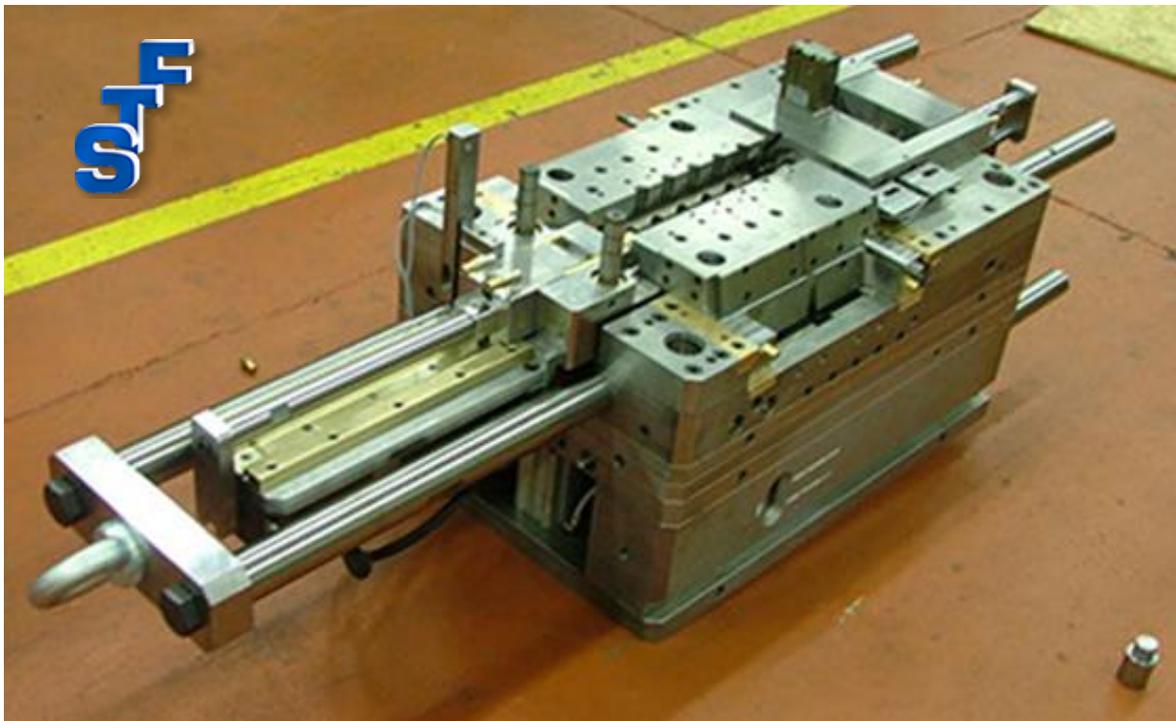
Based in Ternate, Varese, in the North of Italy, S.T.F. S.p.A. has many years of experience in the field of engineering and manufacturing of moulds.

Most of their turnover comes from the household appliances sector, but the diversification policy of recent years has also brought the company to the automotive and components, household and cosmetics markets.

The company directly supplies Italian and overseas customers, based in Poland, Slovakia, South Africa and Germany.

Since purchasing **NCG CAM**, S.T.F. S.p.A. have seen the following results:

- ✓ Programming time reduced by 50% in 3+2 Axis CAM
- ✓ Quick calculations for both small and large parts
- ✓ Learning curve reduced for training new technicians, as **NCG CAM** is so easy to use
- ✓ Great surface finishing quality
- ✓ Machining time reduced by 30%
- ✓ No need for support after start-up



S.T.F. S.p.A. were looking for CAM software that could increase the speed of part program calculations; to make programming agile and maximise the productivity of their 3+2 axis CNC machine tools.

*"We chose **NCG CAM** because it is very powerful and easy to learn."* says Riccardo BRUNELLA - STF Technical Manager.

NCG CAM Machine Tool & Tooling Partners



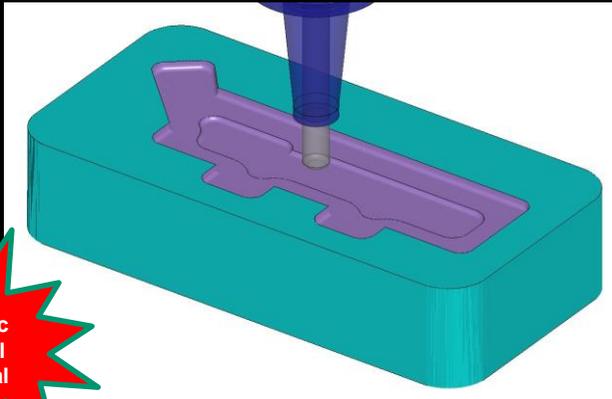
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Dynamic Material Removal

Dynamic Material Removal has been added alongside the existing cutter animation function.

It can indicate the direction of milling, Climb or Conventional, and is able to identify any Gouges or Collisions.

This will enable better visualisation and verification of the material stock removal produced by the calculated toolpath.

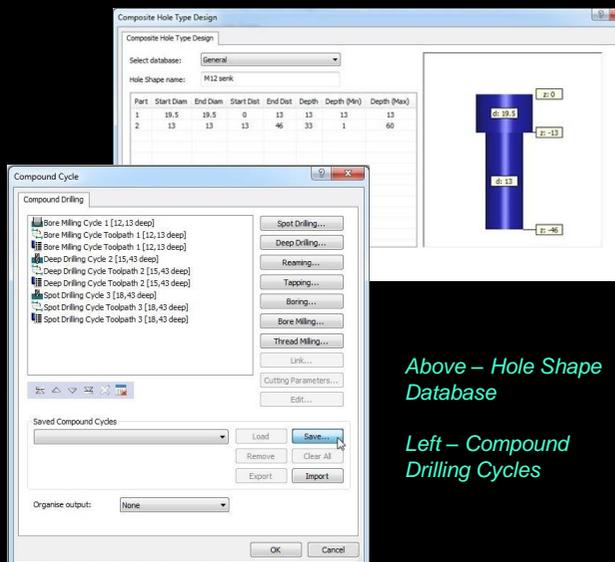


Above – Dynamic Material Removal.

Drilling - Hole Shape Database and Compound Drilling Cycles

In order to further automate the generation of drilling cycles, it is now possible to create a database of hole shapes and to have the Drilling Data Folders searched for those hole shapes. Furthermore, several cycles can be grouped together as compound cycles, to apply them to specific hole shapes.

The Compound Drilling Cycle can also be applied to holes of different directions (tool axis), so that holes with different directions but the same hole shape, can be programmed in one step.

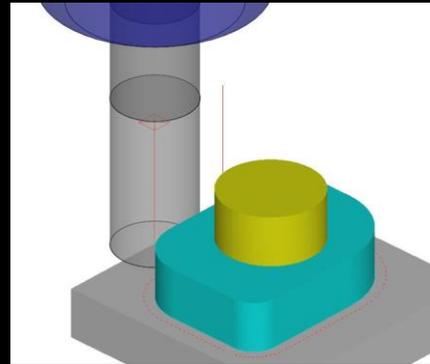


Above – Hole Shape Database

Left – Compound Drilling Cycles

Along Curve Passes – Displaying Cutter Compensation

When Cutter Compensation is applied (left or right) to the Along Curve Passes machining routine, after adjusting for the compensation, the proposed cutter path centre line is now displayed as a dotted line.



Above – Along Curves Passes - Displaying Cutter Compensation.

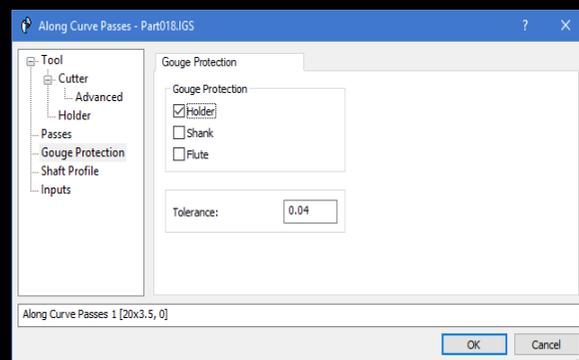
The left or right compensation is dependent on the direction of the Curve, direction arrows are graphically drawn on the curve while the passes dialog is available, so that the user can amend the direction if required. The drawing of the centre line of the cutter will give visual confirmation of the actual toolpath offset.

Along Curve Passes – Gouge Protection

The passes dialog for Along Curves now contains three different gouge protection options:

- Holder
- Shank
- Flute

Each of these can now be set independently.



Above – Along Curve Passes Gouge Protection.

For example – Machining curves for an engraving routine would effectively require the flute of the cutter to be allowed to gouge, while the holder and shaft could be protected.

Continued on Page 5.

Various NCG CAM Reseller Events

R-Techno Co. Ltd., Japan demonstrated NCG CAM at DMS 2019, in Tokyo, Japan in February 2019.

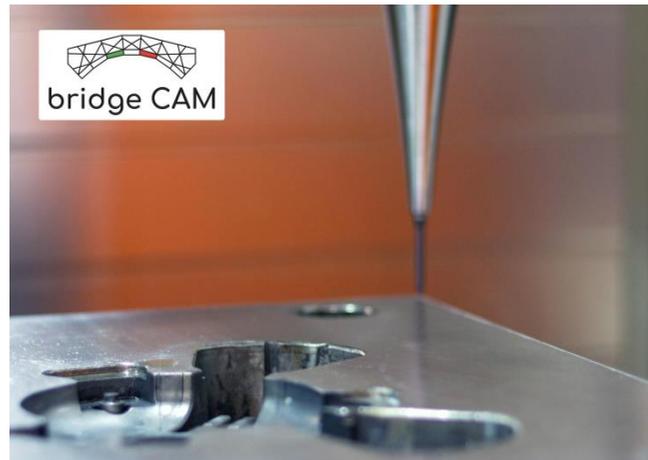
Design Engineering & Manufacturing Solutions Expo (DMS) is Japan's largest exhibition gathering all kinds of IT solutions such as CAD, CAE, ERP and production systems. DMS attracts a significant number of professionals from design, development, production engineering and information systems departments who are looking to buy solutions for their businesses.

DESIGN ENGINEERING & MANUFACTURING SOLUTIONS EXPO DMS



Bridgcam, Italy presented NCG CAM at the supplier trade Fair Offresi IL, Lario Fairs Grass, Italy in February 2019.

Demonstrations showed how much time **NCG CAM** can save customers; **NCG CAM** is giving excellent results in Italy for how it machines complex moulds with ease.



PAD 3 STAND H51

PAD 2 STAND M40

PAD 6 STAND D49



FIERE DI PARMA
28-30/03/2019
MECSPE

Exhibitors included manufacturers and service providers who deal in the construction of moulds, building door moulds, punches, dies, blanking, drawing and cold end, processing from the wire, cold moulding, hot stamping, moulds and moulding plastics and plastic components, 3-Axis and 5-Axis milling.

Also, grinding, EDM, special machining and precision, design special machines, Processing chip removal, milling, turning, broaching, small metal, sharpening tools, processing of drilling, polishing, threading, welding, brazing, grinding, laser cutting, plasma, water, carpentry, bevel gears, gear, Surface treatments and coatings, heat treatments in general, reclamation, cementation, galvanic treatments, treatments, surface, carbide coatings, finishing among others.

Are You a CAM Software User Unhappy with being Forced Down the Subscription or Cloud Route? Then Read On..

Originally launched 20 years ago, our CAM software now called NCG CAM, has a long standing reputation in many countries for advanced 3D milling.

Whilst we do have a Subscription option in some countries, our main license type is Perpetual and we have no intention to change this.

NCG CAM is also designed to work standalone on a dedicated computer, rather than being Cloud based. This is more efficient for complex calculations on large amounts of data and is far more secure.

NCG CAM – What's New in Version 17.0

Export Option Settings

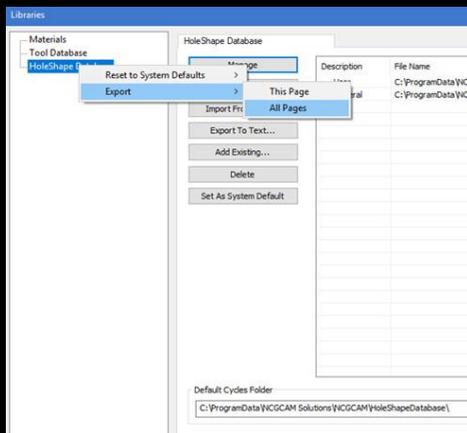
Users can now Export the Tools > Options > Settings.

This is via context menus for pages on the Tools Options and Libraries dialogs.

Each menu has "This Page" and "All Pages" options.

The export creates a registry editor (.reg) file, that will restore the contents of the page.

This will be particularly useful when Users are upgrading to a new major version of **NCG CAM** or installing the software onto a new computer.



Above – Export Option Settings.

Project a 2D Boundary onto the Surface

3D curves can now be projected from a 2D boundary. This is meant as a visualisation aid to help with the creation of additional containment boundaries.

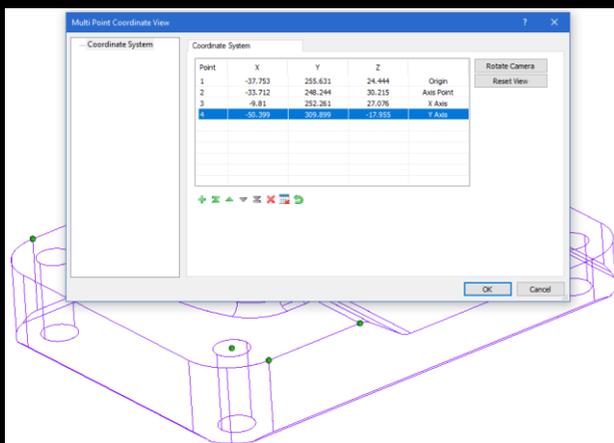


Above – Project a 2D Boundary on the Surface

Local Coordinate System

The Coordinate System entity has been extended to include the Axis rotation information. The User can create a points folder containing key reference points and defining the orientation. By selecting this Coordinate System folder and a Triangulated Surfaces folder or toolpath in the Directory Tree, then selecting the option 'Set Coordinate System' it will reposition the part/s or toolpath/s to the selected plan.

Where multiple parts are imported, this will reduce the time to relocate them to a common Coordinate System.



Above – Local Datum.

This is mainly aimed at 3+2 axis machining as existing boundaries are drawn above the surfaces along the tool axis.

Prior to this it was difficult to be sure of the exact position of contact of a boundary on the surfaces if you are working from a different tool axis.

Improved Graphics Performance

The internal graphics library has been over-hauled to give a significant performance boost to the speed of dynamic rotation and translation of shaded models that contain large numbers of triangles; **NCG CAM** v17 is now 30 – 40% faster than **NCG CAM** v16.

The large number may be due to the large physical size of the model or a tight triangulation tolerance required for machining.

Previously the user may have needed to set the 'Dynamic Rendering Style' to one of the 'Wireframe' options, to better handle the rotation of these bigger models, this of course may still offer benefits.

Continued on Page 7.

Improved Graphics Performance

Various NCG CAM Reseller Events

Geoback CAD/CAM Solutions, South Korea participated in INTERMOLD KOREA 2019, at the KINTEX Exhibition Center in March 2019.

INTERMOLD KOREA 2019 promotes the development of dies, moulds and related equipment. The event facilitates the exchange of cutting-edge technology and know-how, whilst creating new demand and business opportunities.



INTERMOLD KOREA 2019



1C Pro s.r.o., Czech Republic, participated in the TECNOTRADE OBRABECI STROJE s.r.o. Open House in Kuřim, Czech Republic, in April 2019.

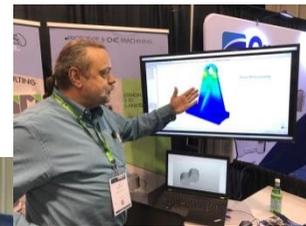
Visitors were able to see nearly two dozen CNC machine tools from DOOSAN's portfolio including machining examples, 3D printers and robotised workstations and of course **NCG CAM** software.



Creative CNC exhibited at the Amerimold Expo, Michigan, USA, in June 2019.

Amerimold is the Event for Mould Manufacturing in North America. Amerimold attendees are owners, executives, engineers and managers at OEMs and contract manufacturers. Amerimold exhibitors are equipment suppliers, service providers and tool & mould makers.

amerimold
The Event for Mold Manufacturing **2019**



NCG CAM is an Official CAM Partner for CAD



NCG CAM – What's New in Version 17.0

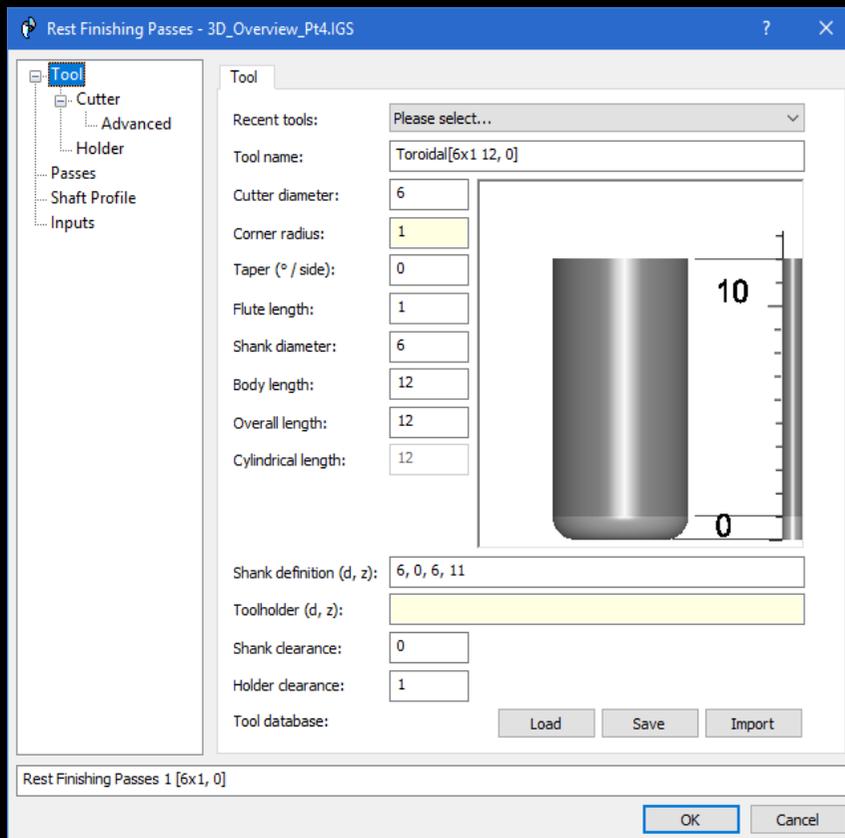
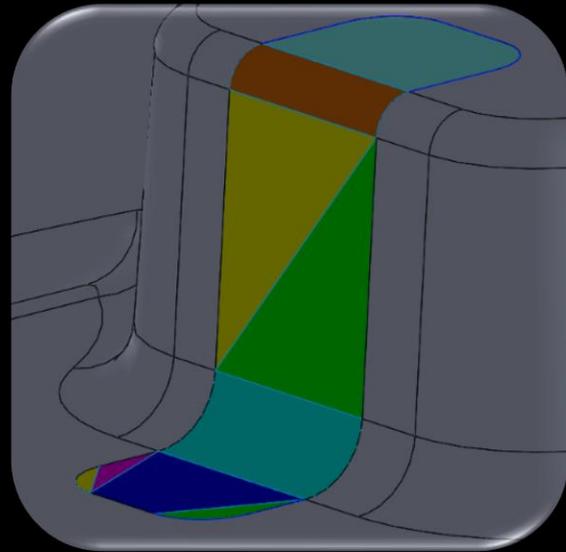
Surfaces - Create a Patch from Two 3D Curves

This development will provide additional CAD functionality, allowing the User to Create a Surface Patch from two 3D curves.

If the curves have coincident start points, then the surface created would resemble a triangular patch. If the two curves are spaced apart, this would create a rectangular patch.

***This feature will not be available in NCG CAM v17.0, but will follow on in a v17 point release once completed.*

Right – Create a Patch from Two 3D Curves.



Rest Finishing – Support Toroidal Target Cutters

This new feature gives the ability to use Toroidal cutters to machine the Rest Finishing areas.

Previously Ball-nosed and Toroidal cutters could be used as Reference cutters to find the corners of the job, but the Target cutter had been restricted to a Ball-nose.

***This feature will not be available in NCG CAM v17.0 but will follow on in a v17 point release once completed.*

Left – Rest Finishing – Support Toroidal Target Cutters

Demonstration Version Available to Download

A demonstration version of NCG CAM software, is available to download.

The demonstration version of NCG CAM has unlimited usage. While there are restrictions to the machining output, it can also be used in its basic form as a **FREE** .iges viewer.

<http://www.ncgcam.com/demorequest.html>

Also see NCG CAM in Action on:



You Tube:

<http://www.youtube.com/user/NCGCAMSolutionsLtd>

Facebook:

<https://www.facebook.com/NCG-CAM-Solutions-Ltd-304632936329961/>



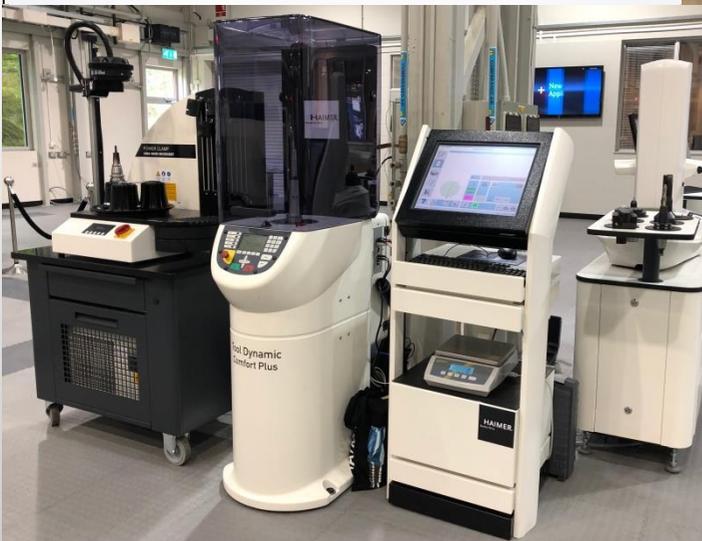
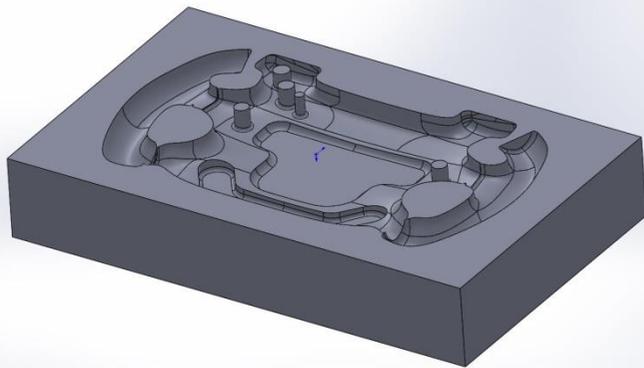
NCG CAM Solutions Ltd Event - Increasing Productivity & Reducing Costs - DMG MORI, Coventry, UK - May 2019

Live machining ran throughout the day on a DMG MORI NVX 5080, demonstrating the speed and high quality finish that can be achieved with the new tooling range from Haimer and **NCG CAM** software.

All software demonstrated at the event is sold as Perpetual Licenses, saving customers £££'s each year when compared to ongoing Annual Subscription costs.

Also participating at the event were:

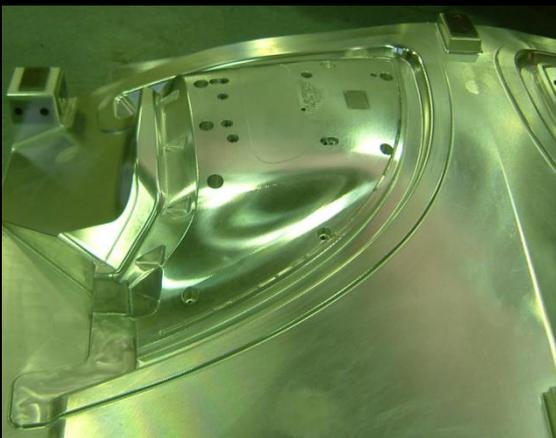
- Ansys SpaceClaim demonstrating their powerful, fast, easy to use Direct Modelling Software.
- CGTech VERICUT – Showcasing their verification software package specifically tailored for the mould, tool & die sector.



ATS UK Limited See Drastic Improvements in Productivity with NCG CAM, Reducing Down-Time

ATS UK Limited is a toolmaking company located in two facilities in Kent, England. Their Folkestone site specialises in the manufacture of Plastic Injection Mould Tools and is situated on the same site as their moulding shop, which specialises in low volume two shot moulding.

Manufacturing Ergonomic and Automated Workstations are the main activity at their Maidstone site. To accompany this, they produce full size automotive and aircraft interiors, providing an exact model experience for their customers, prior to full manufacture.



As toolmakers, ATS UK Limited rarely use their machinery for batch work, as almost all of their manufacturing is single run programs; they needed a user friendly tool which would give them maximum flexibility.

Following lengthy investigations, on various software packages, they chose **NCG CAM** due to its overall diversity and ease of use. In addition it fitted perfectly with the design software that they currently employ.



NCG CAM has provided ATS UK Limited with numerous improvements throughout the shop-floor.

- ✓ Drastic improvements in productivity times, thus improving efficiencies, which has led to a noticeable reduction in down-times.
- ✓ As the software is easy to use, the cost of training was well below their targeted budget.
- ✓ Continued shop-floor training for new employees, has given them the flexibility that they set out to achieve.
- ✓ A major advantage is the versatility of the 5-Axis software. Using both the simultaneous machining and 3+2 axis options, their engineers can utilise their machine tools to their maximum capability.
- ✓ The software works perfectly with all of their machine tools; they have found it incredibly compatible with all of the slight variants that they have with their controls.



"There were various software options, available to us whilst looking at optimising our machine tool programming.

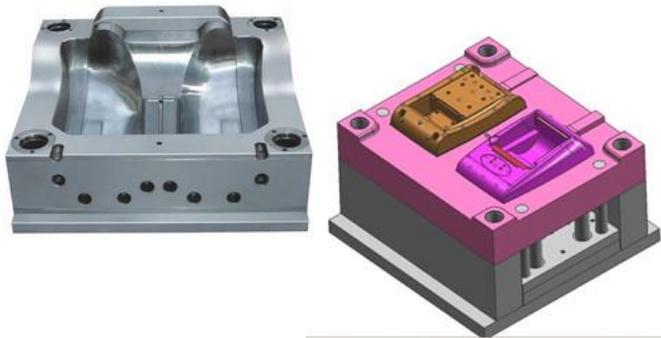
*The selection of **NCG CAM**, has been invaluable to the business, and is a major influence on the efficiencies we have made throughout the shop-floor.*

Excellent purchase!' says Adrian Gander, Group Managing Director – ATS UK Ltd.

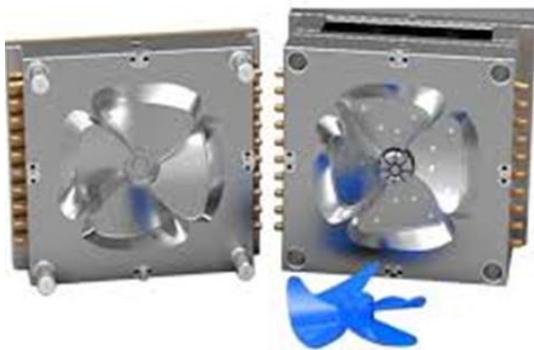
NCG CAM Helps Vishu Industries to Diversify their Plastic Molds and Precision Machining

Vishu Industries, India, established in 2016 to meet the high demand of Precision CNC Machines to use for wire cutting, EDM, and VMC, manufacturing in all types of tool rooms across India.

The company designs & develops plastic moulds, manufactures precision machined parts and carries out repairs and modifications.



Vishu Industries were looking for standalone CAM software that enabled them to quickly and easily modify designs and change between different materials and the speeds and feeds needed for these.



Since purchasing **NCG CAM**, Vishu Industries have seen the following results:

- ✓ Now have very short manufacturing lead times.
- ✓ The **NCG CAM** Toolsheets are accurate and reliable to work with.
- ✓ The Database Editor makes it very easy to add machine tools or tooling.
- ✓ Macros are good for repeat parts, or making similar parts that need a few changes; just Click or Edit.
- ✓ The **SAM TECH SOLUTIONS** Customer Support Department provides fantastic support, quickly helping to resolve any issues with post-processors and networking between their 3-Axis CNC milling machines.

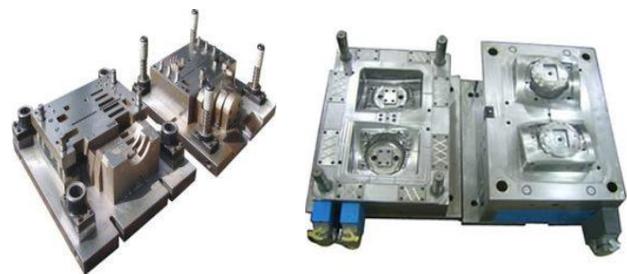


*“Vishu Industries have been using **NCG CAM** from one year as is it so easy to learn and use, is cost effective and gives a great surface finish. We evaluated moving to an alternative CAM product once, but quickly realised how simple **NCG CAM** is to use in comparison to others, how quickly part files load and also just how much faster calculation times are.”* says Bhausheeb Londhe - (Managing Director).

NCG CAM Helps Precision Industries to Diversify their Plastic Molds, Press Tools, Jigs & Fixtures

Precision Industries, India established in 2002 to meet the high demand of Precision CNC Machines to use for wire cutting, EDM, and VMC, manufacturing in all types of tool rooms across the India.

The company designs & develops plastic moulds, manufactures precision machining and carries out repairs and modifications.

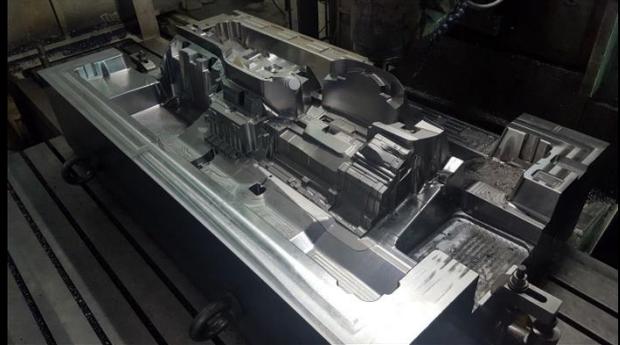


*“Precision Industries have been using **NCG CAM** from one year as is it so easy to learn and use, is cost effective and gives a great surface finish. We evaluated moving to an alternative CAM product once, but quickly realised how simple **NCG CAM** is to use in comparison to others, how quickly part files load and also just how much faster calculation times are.”* says Sunil Garg - (CEO).

Preconomy Ltd Invests in 5 Seats of NCG CAM & Reaps the Benefits After Just 1 Day

Preconomy Ltd, UK, is a long established large toolmaker based in the East Midlands, manufacturing new tooling as well as servicing, modifications and repairs to aluminium cast, magnesium cast, and plastic moulding tools for the automotive, oil and gas, and civils industries.

With lifting and machining capacity up to 25t, Preconomy is a highly skilled company working on complex tools.



A conversation with NCG CAM Solutions Ltd and an offer of an initial free trial showed immediate improvements over the old software.

- ✓ The interface was very similar, so the learning curve to the new software only took a day of familiarisation.
- ✓ The improved model manipulation and path generation options quickly removed previous stumbling blocks.



Preconomy felt its original software was becoming more and more prohibitive with ease and speed of programming, as the original software had not had any major developments for a number of years.

With increasing pressures and reduced lead times, it was an area Preconomy looked to resolve.

'NCG CAM gave us benefits straight away with hole capping, feature recognition and toolpath options on our complex dies. We can also read more types of files in and faster so saving on file type conversion issues we previously suffered from.'

The familiar and simple user interface meant we converted to NCG CAM without any issues. It has been a breath of fresh air for us, where we can look forward to ongoing improvements with the regular updates.' Says Matt Greaves CNC Mill Operator / Programmer – Preconomy Ltd.

Preconomy Ltd 

Powerful, Reliable & Affordable Advanced 3D CAM Software

NCG CAM is a stand-alone CAM system offering an easy to use HSM CAM solution that integrates with existing CAD and CAM systems, including SmartForm Design, Think3, NX, Catia, Ansys SpaceClaim, CREO, Pro/ENGINEER and SolidWorks.

NCG CAM boasts many innovative features. It is suitable for all types of forms, creating an optimised, smooth cutter motion for HSM, 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 required to machine a live job. It is perfect for the high-speed machining of moulds, dies, prototypes and precision surface machining.

- ✓ 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 and a simultaneous 5-axis add-on module is 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

KEY BENEFITS:

- ✓ Stand alone CAM software that is compatible with **ANY** other CAD package
- ✓ Extremely easy to use with just 1 day training required to machine a live job Ideal for shop-floor programming
- ✓ All post-processors are written in-house
- ✓ Powerful 3D machining
- ✓ Toolpaths are optimised for HSM
 - Increased efficiency
 - Reduced wear on machine
 - Extended tooling life
- ✓ **Perpetual Licensing (This will NOT change)**

Saves time and money !!

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 CAD/CAM 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.

Established in June 2009, NCG CAM Solutions Ltd has a rapidly growing global reseller base, with resellers for NCG CAM in UK, Germany, Portugal, Spain, France, Netherlands, Czech Republic, Slovenia, Slovakia, Poland, Hungary, Romania, Serbia, Croatia, Norway, Turkey, Italy, India, UAE, Russia, Pakistan, Hong Kong, China, Taiwan, Japan, South Korea, Philippines, Vietnam, Australia, Brazil, Mexico, South Africa and across USA and Canada.



To contact a reseller for more product information, or to download a demonstration version of **NCG CAM**, visit the company's website www.ncgcam.com.

Alternatively contact Estelle Dunsmuir for more information – estelle@ncgcam.com or call +44 (0)1223 236408 / +44 (0)1353 699840.