



PRESS RELEASE

NCG CAM v18.0 is Officially Released Download a Demonstration Version Now

NCG CAM Solutions Ltd, UK officially released NCG CAM v18.0 on 1st June 2021. This major release continues to enhance the New Modern User Interface with an Improved Layout of the Menu Tree and Pictures Added to Dialogs.

New features include: Create a Patch from Two 3D Curves, Waterline offset Passes - XY Incremental Offset, 3D Tool Guide, Extract Curves, Boundaries – New Snappable Grid Option, Post-processor – Arc Fitting in 3+2, Allow Plan Dialogs to Work on Multiple Input Plans of the Same Type, and the Performance of Selected Waterline and Raster Machining has been greatly improved.

Also, Horizontal Area Passes from Outside to Inside, Macros – Being Able to Use Colour Information in a Macro, Stock Model – Editing, Transforming, Post-processor – Additional Naming Options, Icons – Improved Contrast of the Ribbon, Tree View & Context Sensitive Menus, Surface of Revolution, Cutter Simulation – Simulate Multiple Toolpaths, Additional Functionality of the Select Box and Other User Interface Enhancements.

A new feature, Trim Surfaces to a Boundary, *will follow on in a v18 point release.*

A demonstration version of NCG CAM v18.0 is now available to download:

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

Continuing to improve the **NCG CAM** User Interface since the Ribbon Interface was introduced in **NCG CAM** v17.0, there was a requirement to **Improve the Layout of the Directory Tree** or 'Folder View' to make it more organised and easier to use. Additional structure that automatically provides folder areas to contain specific items; for example, Boundaries, Surfaces, Passes, Toolpaths, etc has been added. By default, **NCG CAM** remains unchanged for existing users. This function can be implemented by ticking 'Automatically organise tree view' on the Options, Preferences page.

Also enhancing the User Interface, many descriptive **pictures have been added into the dialogs** to explain the functionality of the parameters; this will further improve the ease of use of the software.

Additional CAD functionality has been added, allowing the User to **Create a Surface Patch from two 3D Curves**. If both curves have a coincidental start point, then the surface created would resemble a triangular patch. If the two curves are spaced apart, this would create a more rectangular patch.

A new Waterline Offset passes function has been developed - **Waterline Offset Passes - XY Incremental Offset**. This provides the ability to apply a number of incremental XY offsets, effectively allowing the creation of Semi-finishing and Finishing passes at the same time. This will also aid the machining of steep, thin wall rib sections as a larger amount of stock material can be retained beneath the cutter.

A cutter or a complete tool (Cutter and Holder) can now be used as a **Tool Guide to visualize in 3D** if a tool fits the machining area. The tool must be defined in the Tool Folder, once selected it can be positioned on the Triangulated Surface using the mouse, in addition the keyboard arrow keys can be used to increment its direction. If the shank or holder is touching the surface because the cutter is too short, they will be highlighted in a different colour.

Surfaces can now be trimmed to a Boundary. This new feature provides additional modelling capability and will help in the creation of surfaces; for example Electrical discharge machining (EDM), etc. (**This feature will not be available in **NCG CAM v18.0** but will follow on in a v18 point release once completed.)

Extract Curves - Curves are now created directly from Pcurves if available in the input data file. When 2D Machining with Cutter Compensation or 5-Axis machining, a smoother, more accurate result is achieved when using these Pcurves. Now fully implemented, the menu options have also been simplified. (*A Pcurve is a Parameter Curve created by the modeling system on a surface when the surface is limited. They are transported as part of the input data and are used to define the trim boundary of a surface when triangulated.*)

Boundary Creation options have been improved by adding a **Snappable Grid**. The User can now draw boundary profiles with positions that 'Snap' to the underlying grid. With the added use of the 'Shift' key, arcs can also be drawn.

Arc fitting is now allowed on rotated planes in the **post-processor**. The user can now output circular arc moves in 3+2 axis machining which allows the use of cutter compensation in 3+2. Circular Arc or Linearisation of passes in rotated planes is now optional via a macro setting.

In previous versions, the linking of Raster Passes required there to be a single Raster Passes plan selected to be able to show the raster linking dialog. With this enhancement, Users are now able to select **multiple plans of the same type** and then display a single dialog. When accepted, an output plan will be created for each input, each output plan having the same parameters. This will also be of benefit if the similar passes have different rotated boundaries, such as 3+2 axis.

The **performance of Selected Surface Waterline and Raster Machining** have been greatly improved.

A new option has been added to the **Horizontal Area linking page; 'Link from outside'**. When the option is selected, **NCG CAM** will attempt to order the passes starting from the outside and working inwards. This new option provides further flexibility to complement Core Horizontal Passes also, due to the method of offsetting of the passes. For example, when facing blocks; starting from the outside of the material is a better approach than starting at the centre. In addition, because the first pass is on the edge of the block, better cutting conditions are achieved.

After selecting Surfaces by colour, Users can Save the machining operations inside a Macro, the **Macro now allows use of colours** in the same way as the User did originally. If the Macro were to be run on a different part, the Silhouette would be created round the surfaces with the same colour as in the original Macro from which it was written.

Stock Model - Editing, Transforming - It is now possible to make a Union, an Intersect, or to Subtract stock models from each other, as well as transforming stock models. The ability to create a cylindrical stock model is also available.

Post-Processor – Additional Naming Options - It is now possible to create a master tape file which contains sub-programs (tape files) within it. This can be created at the time of Post Processing or as an extra step using the "Post Process Master" option on the toolpath ribbon. There are now more options to specify the format of the file names for post processed files created by the software. For example, allow leading zeros in post processed file names, so that alpha-numerical lists look better.

User Interface Icons - Improved contrast of the Ribbon, Tree View & Context sensitive menus - The colours for the Passes and Boundaries icons have been updated for clarity.

NCG CAM is now able to **create a revolved Surface** using a selected Curve as the Spine and the Datum Point's Axis as the Origin. The Curve will be swept around the rotation vector to create the revolved Surface. This new feature is useful for Cylindrical parts as well as Turning, which is currently under active development.

A **multiple selection of toolpaths can now be simulated in order**. Each toolpath, when simulated, will be shown in a different colour.

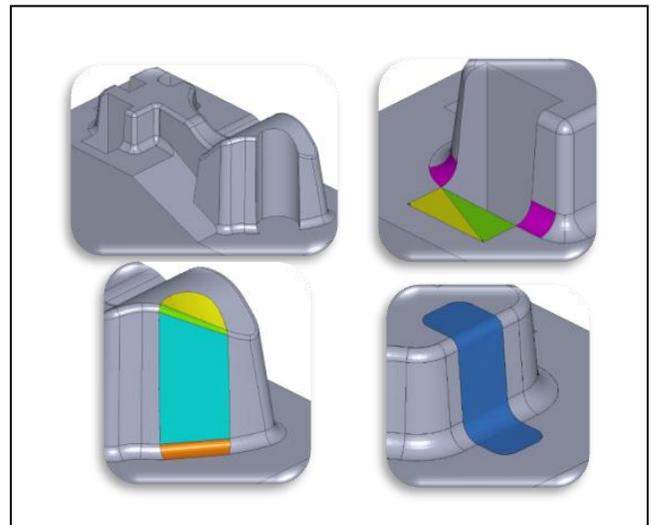
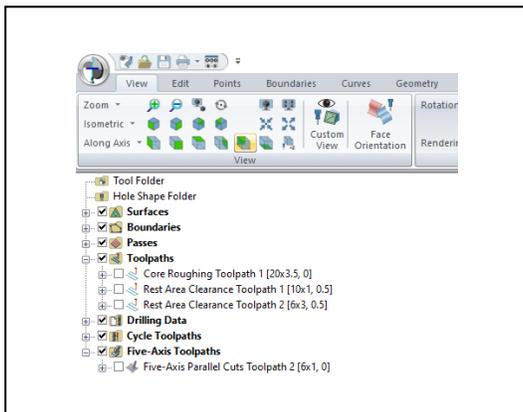
The **functionality of the Select Box when dragging corner to corner, has been improved**. Left to right: Will select only the objects that are fully within the box. Right to left: Will select everything inside and touching the box.

Improvements have been made to the Axes Length Controls. In addition to the existing fixed length option, an alternative 'Axes length in pixels' has been added. When using this option, the size of the Axis drawn on screen remains consistent irrespective of the Zoom Factor of the geometry.

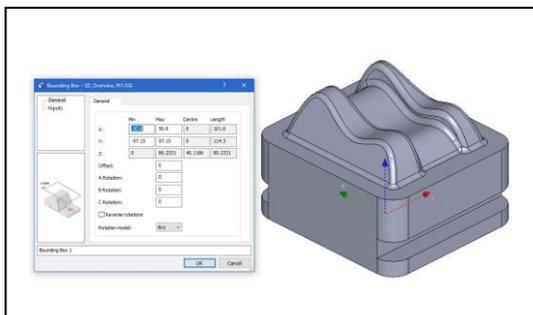
Other User Interface enhancements include: the **properties dialog for a plan can now be accessed by double-clicking on the plan with the control key pressed**. The **'Space Bar' can now tick and untick items in the tree view**. **Changes to the material cutting speed units** - mm/min to m/min and inch/min to ft/min. These changes will affect the material library, project setting and cutter advanced pages.

Picture – NCG CAM V18.0

Below – Improved Layout of the Directory Tree



Above – Create a Patch from Two 3D Curves



Left – Improved UI - Add Pictures to Dialogs

About NCG CAM Standalone 3D HSM 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.

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

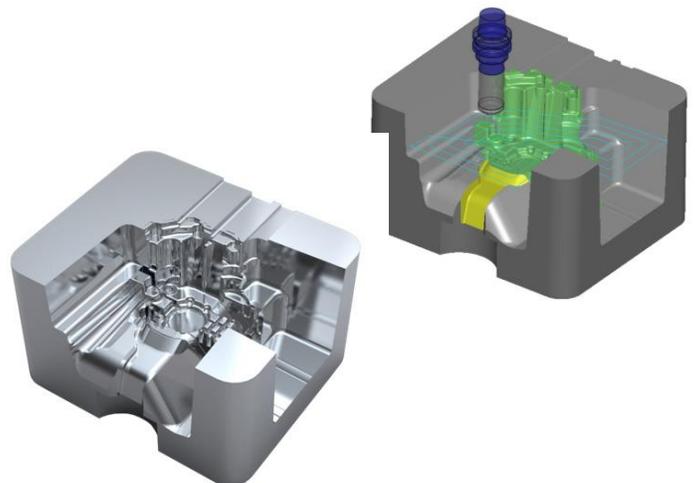
NCG CAM has a very 'user-friendly interface', with a typical learning curve of just 1 day required to machine a live job. It is perfect for the high-speed machining of moulds, dies, prototypes and precision surface machining.

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, a simultaneous 5-axis add-on module is available
- Fast and efficient roughing strategies, including core roughing and adaptive clearance
- Comprehensive 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
- **Perpetual Licenses are available and will NOT be discontinued**

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
- Gouge protection for cutters and holders
- All post-processors are written in-house
- Powerful 3D machining
- Toolpaths optimised for HSM
 - 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 -

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

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.

Operating system compatibility: Windows 10™ onwards on a 64-bit platform, 8GB RAM (minimum).

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 our staff have a wealth of CAM experience, having worked in the CAD/CAM and engineering industry for many years. In particular, every member of our support team has worked on the shop-floor using CAM software on live jobs, enabling us to provide an excellent back up and support service for the software.

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, Czech Republic, Slovenia, Slovakia, Poland, Hungary, Romania, Serbia, Croatia, Norway, Turkey, Italy, Sri Lanka, India, UAE, Egypt, Russia, Ukraine, Pakistan, Hong Kong, Singapore, China, Taiwan, Japan, South Korea, Philippines, Vietnam, Malaysia, Australia, New Zealand, Brazil, Mexico, South Africa and across USA and Canada.

To contact a reseller or to download the demonstration version of **NCG CAM**, visit www.ncgcam.com .

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