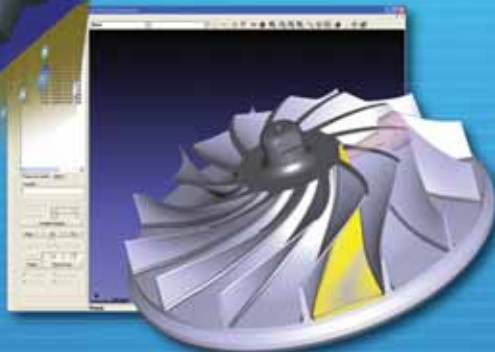
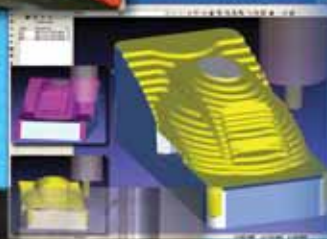
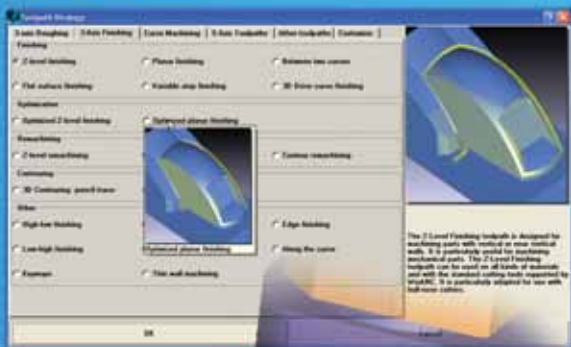


WorkNC[®]

V18

NEW FUNCTIONS AND ENHANCEMENTS



In today's world productivity is derived from ease of use, automation, simplification, innovation and performance.

Version 18 of WorkNC

CAM/CAD software has

focused on optimising each of these key factors.

We have undertaken extensive

work to ensure user

friendliness, develop new

modules as well as further

enhance existing toolpaths

and develop new ones.

This ensures that WorkNC

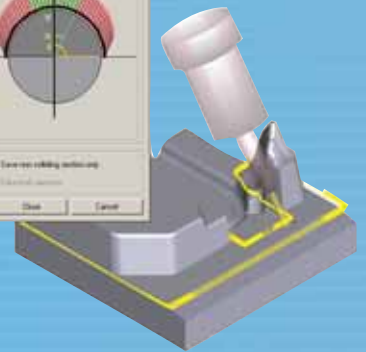
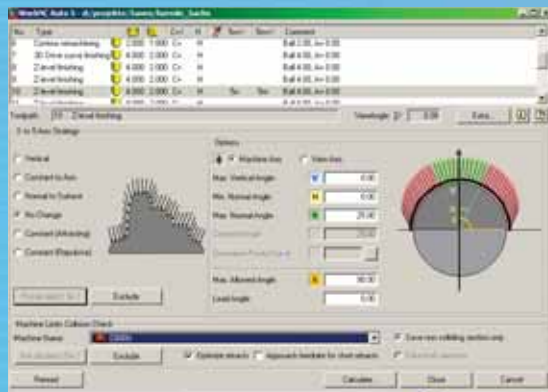
delivers maximum productivity

gain for its customers.

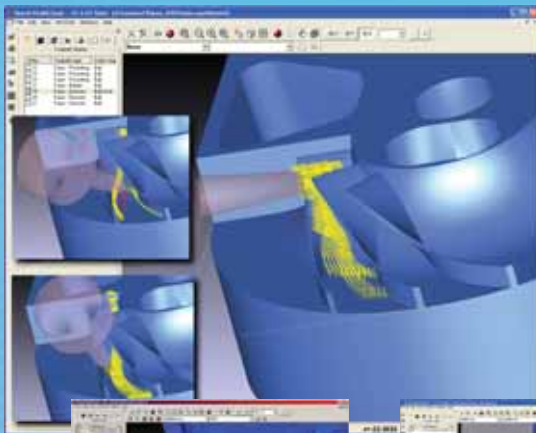


NEW AUTO 5 CONVERSION FUNCTION FOR AUTOMATIC 5-AXIS MACHINING

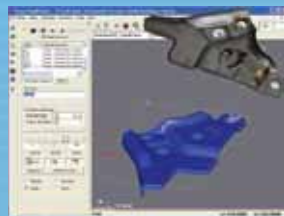
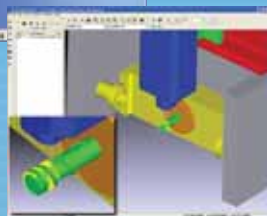
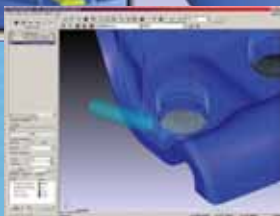
V18 includes new smoothing functions which automatically ensure extremely fluid 5-axis trajectories. We have added new options to accelerate, simplify and increase the reliability of Auto 5's automatic 3 to 5-axis toolpath conversion. Automatic collision and machine angle limit management, along with machine environment simulation, are also available within the new conversion options.



NEW SPECIALISED 5-AXIS SIMULTANEOUS TOOLPATHS



New smoothing functions also feature in WorkNC's Simultaneous 5-axis machining toolpaths. This results in very fluid trajectories and guarantees excellent surface finishing. We have also added a range of toolpaths to this latest version allowing users to machine deep cavities with special tools (lollypop, disk, etc). In addition, there is a suite of three new toolpaths (Roughing, Re-roughing and Finishing) for machining simple or complex impellers as well as a new 5-axis laser cutting toolpath plus a toolpath for 4-axis machining.



V18 also includes :

- New Auto 5 conversion strategies : Keep A/B angle, Vertical, 4 Axis, Radial,
- Interactive management of machine head positioning and orientation (calculation and verification),
- Interactive modification of Normals,
- Normals smoothing between two points,
- Collisions reporting.

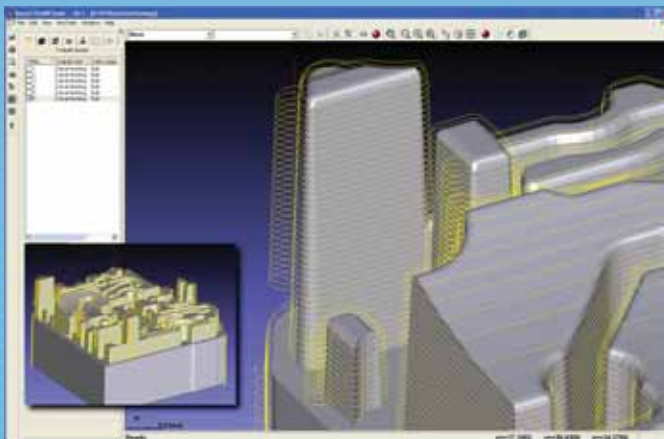
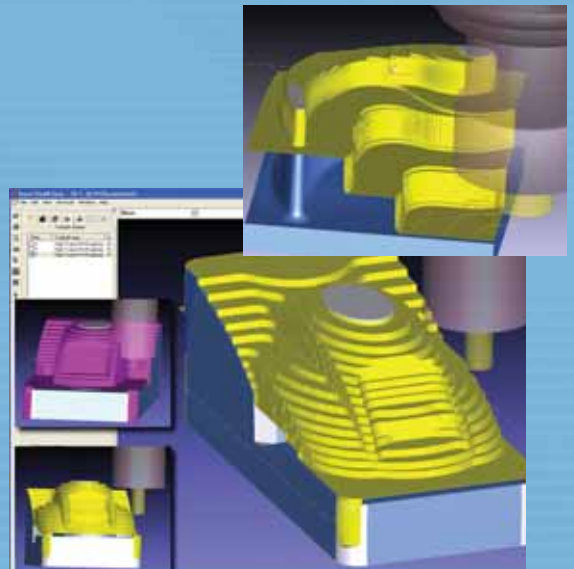


WorkNC® V18

IMPROVEMENTS AND NEW STRATEGIES FOR 2, 3 AND 3+2 AXIS MACHINING

Dynamic Stock Model Management for optimised, collision-free, roughing

WorkNC's new dynamic stock model and tool holder management allows real time updating of roughing toolpaths. This new function is a major step forward in roughing and ensures collision free toolpaths whatever the size and shape of the tool holder. We have also optimised toolpaths to ensure climb mode machining whenever possible. This requires a minimum number of retracts, and generates smoother and more fluid trajectories.

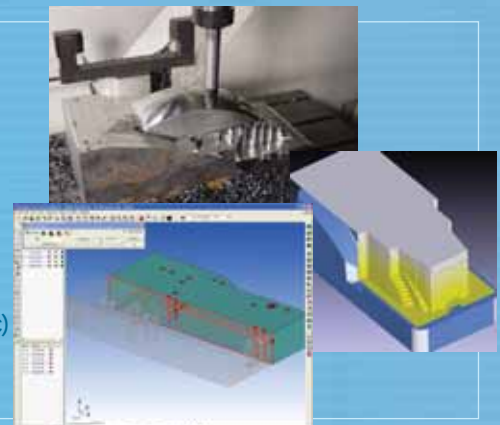


Optimised Finishing toolpaths :

We have created a new Z-Level Finishing toolpath to improve quality while reducing machining times. We have developed new automatic lead-in strategies to eliminate surface marking. The number of retracts has also been minimised to avoid air cutting as much as possible. Improved toolpath fluidity, vital for high speed machining, is also a key feature of this toolpath.

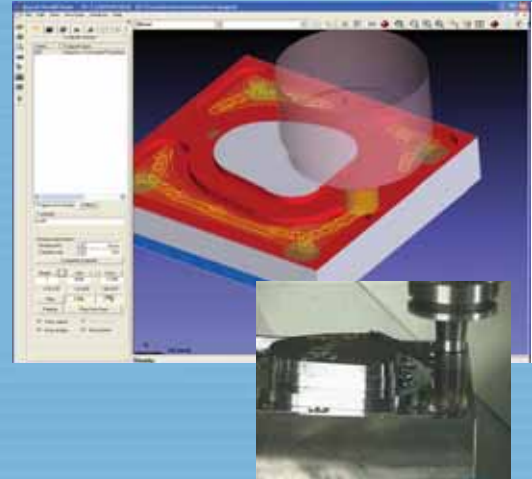
V18 also includes :

- Tool service life management
- Plunge Roughing following a curve or a cluster of points
- Lead-in tangency extension for Planar Finishing
- Trochoidal trajectory for machining keyways (single pass keyway opening with a high Z-Level)
- Trochoidal movements for curve machining
- Deep hole drilling management
- Improved drilling functions (compound angle drilling, drill start side selection, etc)
- Improved and optimised flat surface machining



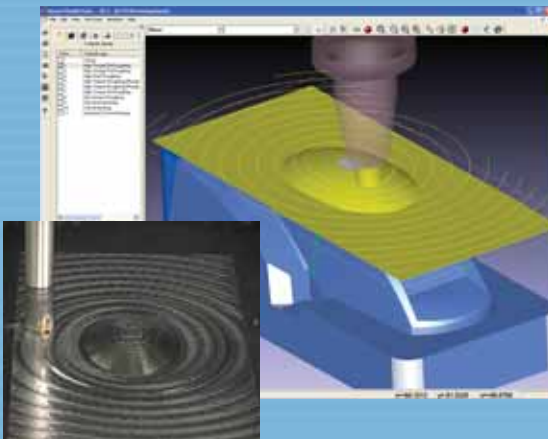
Adaptive Trochoidal Roughing:

This new intelligent toolpath is perfectly adapted for machining hard materials either with HSM or traditional milling centres. Furthermore, constant stepovers in the climb mode ensure maximum tool service life. This toolpath delivers a high level of optimisation due to parametric activation of the trochoidal movement.



New Spiral Core Roughing Toolpath

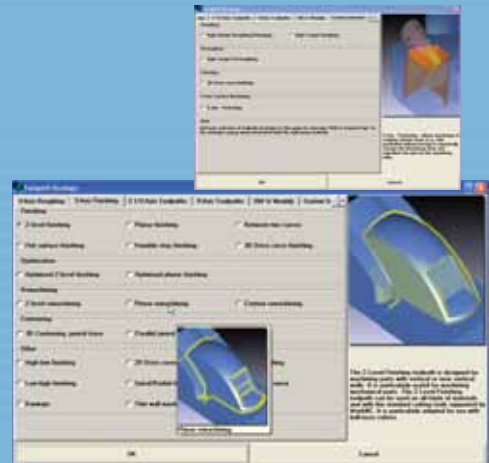
We have designed a new roughing toolpath to generate optimised fluid toolpaths on core shaped parts. A feature of this toolpath is the low number of retracts due to a continuous spiral trajectory at each Z level. Machining times are kept to a minimum and tool service life is maximised.



ENHANCED USER FRIENDLINESS

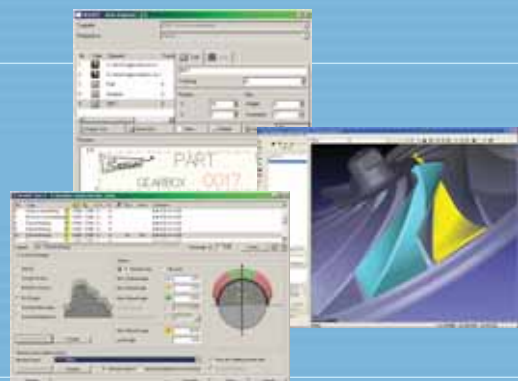
Version 18 brings important improvements to the WorkNC user interface

- Simplified access and selection of toolpaths from an increasingly vast range,
- Customised menus that are easy to create, allow users to group together their most frequently used toolpaths,
- Automatic and reliable toolpath parameter programming by applying modifiable rules from an integrated knowledge base.



V18 also includes :

- Improved user interface for creating curves and context surfaces as well as 3/5 axis toolpath editing with VisuNC,
- Integration of 'Auto 5' (automatic 5-axis machining) information within the menu,
- Integration of 'Auto Engrave' within the menu.

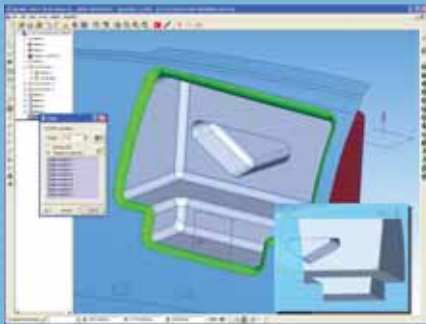
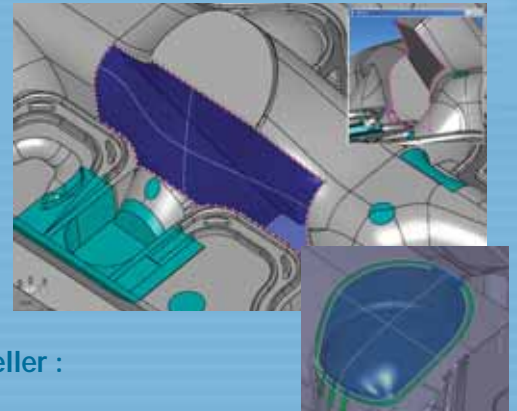




WORKNC-CAD V18 HYBRID 3D MODELLING AND AUTOMATION

Plug complex holes with just a few mouse clicks ...

A new type of surface broadens the scope of WorkNC-CAD V.18 : with Surface Morphing it is easy to close off a complex boundary with a few clicks of the mouse. As many products today often incorporate organic shapes, WorkNC developers have created efficient repair functions for highly complex surfaces.

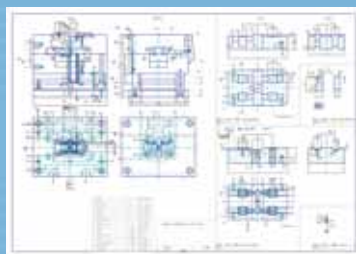
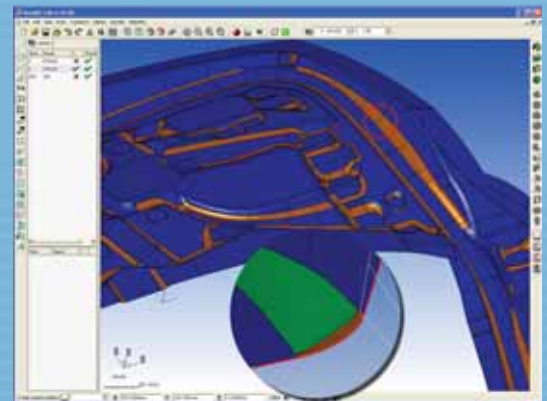


Hybrid 3D Solid/Surface Modeller :

The integration of a hybrid 3D solid/surface modeller provides users with tools which deliver further productivity gains. Advanced functions such as 3D filleting, parametric solid modeling and surface reconstruction push back the limits of modelling and 3D model machining preparation.

Automation of specialised functions - die tools :

This new set of functions provides efficient tools for automating complex specialised operations such as automatic fillet modification on die tools. In numerous tests, preparation times for large tooling equipment were reduced from several hours to a matter of minutes.

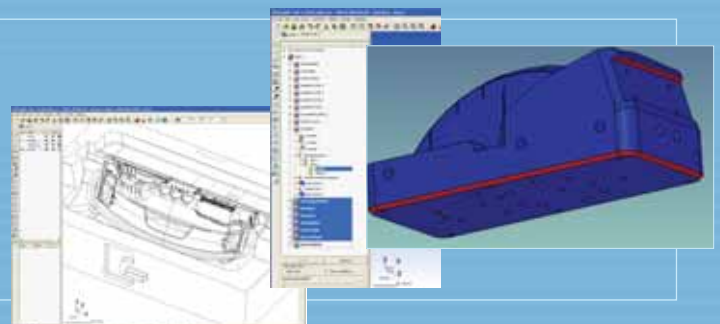


Associative 2D Drafting :

Associative drafting allows the 2D drawings of parts which can be easily updated following any modifications due to a dynamic link between the 3D models and the drafting function. Users will appreciate the new, efficient, user-friendly annotation functions.

V18 also includes :

- Draft angle analysis,
- 3D Solid repair functions,
- Dynamic wireframe display of hidden edges,
- Surface selection,
- Catia V5® and UG® assembly tree structure display,
- Catia V5® and UG® data importation directly from the tree structure (CAD part, CAD model).

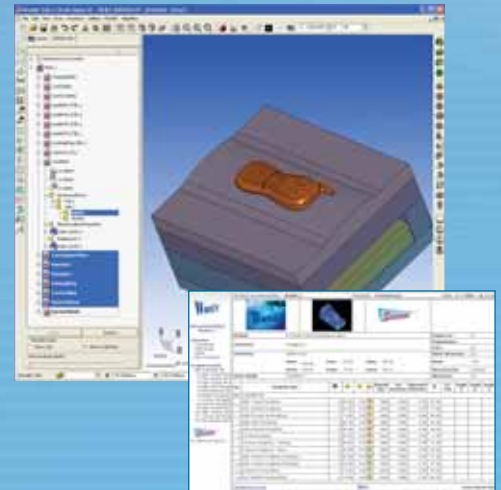


WORKNC TOOLS AND UTILITIES :

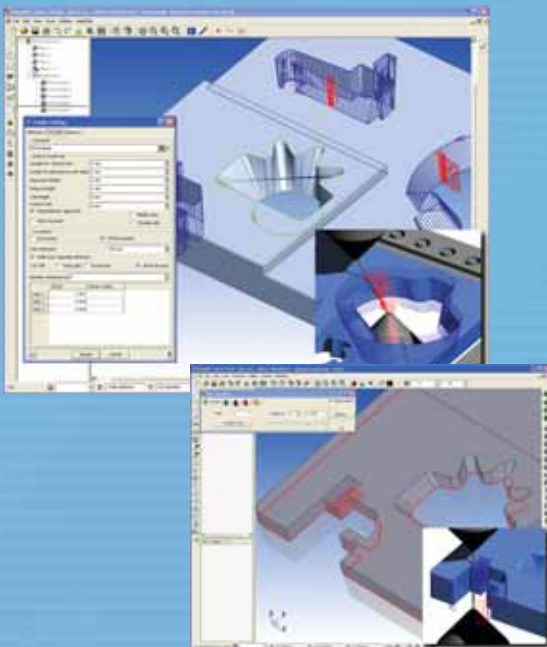
Import/Export Interfaces : We have improved standard and native WorkNC interfaces and updated (Catia V5 R14). Two new direct interfaces, ProE and CADD5 complete the range offered by Sescoi.

Workshop Documentation : This new machining sequences documentation generator allows easy definition of customised documentation via a clear and concise menu.

Pack & Go : This simple utility allows users to file their workzones with a couple of mouse clicks.



NEW WORKNC 2/4-AXIS WIRE EDM MODULE



Designed to meet WorkNC users' specialised requirements, this Wire EDM Module provides flexible, simple 2 and 4-axis programming.

Completely integrated within the CAD module, the Wire EDM Module possesses all WorkNC-CAD specialised functions :

- Compatibility with CAD files,
- 2D or 3D model processing,
- Automatic extraction of cutting profiles,
- Advanced cutting strategies : These are automatically applied on open or closed profiles when initially selected, or later on if 2 or 4-axis cutting is being undertaken,
- Interactivity and simulation,
- Customised Postprocessors : A wide range of postprocessors is available for the majority of machines on the market. Postprocessors are always adapted to the specific requirements of machines, controllers or working methods.

