

Machining

fact sheet

Siemens PLM Software

www.siemens.com/plm

► Summary

Driven by the requirements of manufacturing companies worldwide, NX CAM provides a wide range of machine tool programming capabilities in one comprehensive system. These functions address mold and die machining for tooling manufacture, prismatic part machining that is typical in machinery applications, as well as providing proven, continuous five axis machining required for complex parts. NC programmers like the programming flexibility provided by many advanced capabilities that allow the most challenging jobs to be completed. A focus on ease of use and programming automation enables the new user to access the power of NX CAM.

Benefits

Improve the productivity of the machine tool

Take advantage of the latest machine tool technologies and manufacturing processes

Improved surface finish on parts

Handle complex job requirements with ease

Save up to 90 percent on programming time, by automating routine tasks

Achieve faster and repeatable NC programming, by capturing and reusing proven machining processes

Simulate and validate NC programs in the context of the machine tool to get it right the first time on the shop floor

Minimize the time and cost involved in design changes

Increase efficiency of NC programmers and eliminate the need for extensive training

System requirements

NX CAM is available in both 32-bit and 64-bit versions and runs on a wide variety of platforms including Windows, SuSE Linux, Hewlett Packard HP-UX, AIX, IRIX and Sun Solaris.

Business value

In response to increasingly competitive price, delivery and quality requirements many manufacturing companies are investing in the latest, most efficient and capable machine tools. Machines such as high speed mills, mill-turn centers and the most advanced 5-axis machines can deliver greater productivity and machine increasingly complex parts.

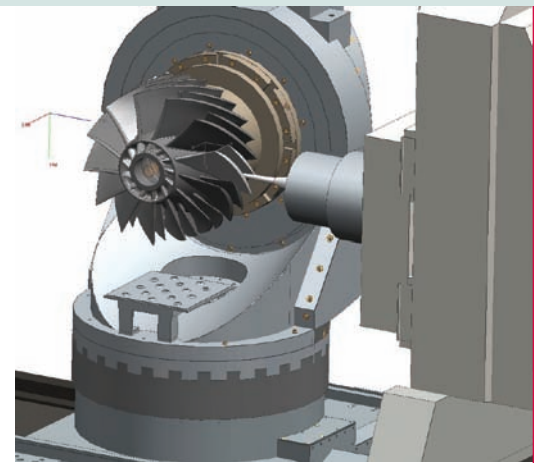
To obtain the maximum value from these advanced machine tools it is critical that the NC programming system provide the necessary range and depth of capability. NX CAM offers a wide range of proven, flexible NC programming capabilities across many machining functions, combining advanced capability with process automation, ease of use and production ready output. When more than just a CAM package is needed, NX CAM can be deployed within an integrated Part Manufacturing solution that spans tool libraries, data management, process planning and extensions for shop floor connections.

Siemens is also a proven manufacturer of shop floor technology including machine tool controllers. Close connection with controller technology helps Siemens PLM deliver a CAM system that optimizes output for performance, efficiency and product quality, producing the best results at the machine tool.

Key capabilities

Advanced capability

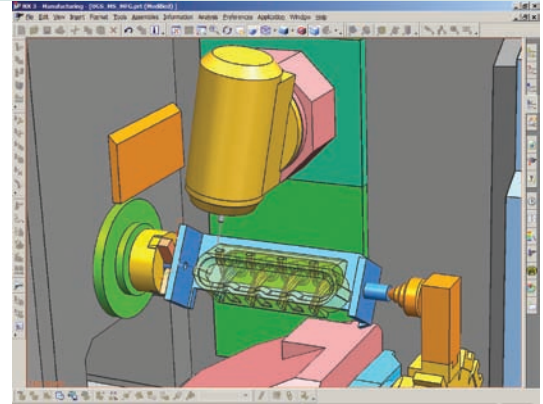
- Wide range of high speed machining strategies for efficient hard milling maintain smooth motion and consistent chip loads.
- Synchronized Point Distribution produces tool paths that deliver a superior surface finish at the machine tool.
- The Machining data library provides proven, out of the box data for machining tool steels.



- Support for the latest generation of multi-function machine tools includes multi-channel milling, drilling and turning capabilities, including simultaneous 5 axis support.
- The Synchronization Manager provides a clear graphical display for multiple program channels.
- Wide range of flexible 5 axis machining strategies provides many tool axis control options.

Programming automation

- Automated feature based machining strategies intelligently apply machining processes to hole and surface features in the part model.
- Product manufacturing information (PMI) embedded in the 3D model drives machining process decisions.
- CAM Wizards capture and reuse proven machining processes, leading NC programmers through a machining sequence step by step.



Production ready output

- G code driven Machine Tool Simulation validates NC programs in the context of the machine tool, using the posted G & M codes to drive the 3D machine assembly model.
- Controller driven simulation is provided for Siemens 840D equipped machine tools, using software from the physical controller to display machine motion with the highest accuracy.
- For select multi-function machines, complete Machine Tool Kits provide a proven post processor, a G-code driven simulation driver, 3D machine tool model, setup examples and sample parts.
- Postbuilder provides an intuitive graphical user interface to create post processors with simple drag and drop techniques.
- Post processor output is optimized for the Siemens Sinumerik controllers.
- Hundreds of posts are available in the online post processor library.

Integrated solution

- NX CAM is totally integrated with the NX product development solution so NC programmers can directly access comprehensive design, assembly and drafting tools in the same unified system.
- With design through manufacturing associativity, design changes are automatically propagated to machining operations.
- With this complete development solution, programmers and manufacturing engineers can work with part models, create and assemble fixtures, develop tool paths and even model entire machines for 3D machining simulation.

Ease of use

- The familiar Windows user interface makes for a comfortable software environment.
- New users get up to speed quickly with the CAM Express role, which tailors the interface to suit the needs of novice users.
- A wide range of Workflow Tutorials cover various NC programming tasks such as high speed machining, multi-function machining and 5 axis machining from start to finish, helping new users to get up to speed quickly.

► **Contact**

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