



**SIEMENS**

*Ingenuity for life*

# NX CAM 2.5 Axis Milling Add-on

## Benefits

- Volume-based milling automates programming of prismatic parts
- Feature-based machining automatically creates complete machining processes
- Solids-based cutting machines complex shapes intelligently
- High-speed machining maximizes CNC machine investments
- Easily program multiple parts and multiple stage fixtures

## Summary

The NX™ CAM 2.5 Axis Milling Add-on software provides the essential milling and drilling capabilities that are part of virtually every milling implementation.

## Flexible machining coordinate system (MCS)

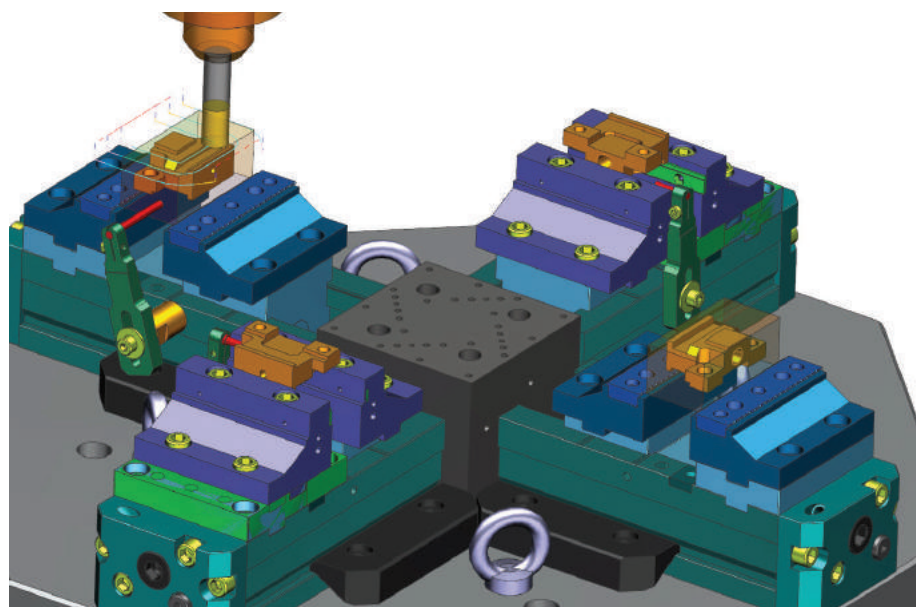
With NX CAM, you can make holes and planar cuts anywhere on the part using any valid tool axis. These 2.5-axis cuts can be performed by 3+2 positional machines in any orientation.

## Multi-stage machining and in-process workpieces

Efficient production of machinery components requires the ability to machine components in several stations, tracking the in-process workpiece (IPW) throughout the process so that motion is efficient and air cuts are eliminated. Blank models follow the part from one station to the next, representing the uncut material for the most efficient cuts.

## Multiple part programming

NX CAM delivers powerful, streamlined multi-part machining. It speeds the development of various tombstone and fixture configurations, distributing tool paths to as many components as required. Complete machining



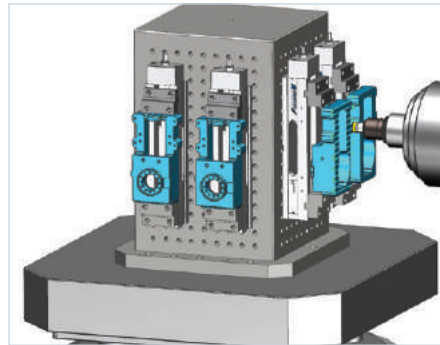
Multi-stage machining tracks in-process material from station to station.

# NX CAM 2.5 Axis Milling Add-On

## Features

- Feature-based machining
- Adaptive milling
- Hole making
- Face milling
- Z-level finishing

Sequences and tool paths developed for one workpiece can be immediately distributed to the other workpieces in other positions and orientations.



Machine multiple parts easily by distributing tool paths to your different workpieces.

## Hole making

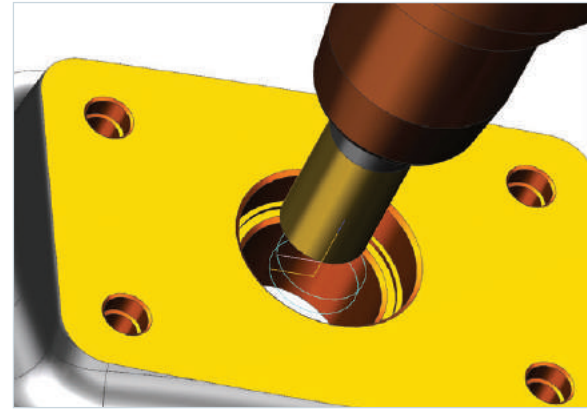
Extensive hole making functions are provided for spot drill, drill, ream bore and tap. You can use deep drill, peck drill and special boring cycles. User defined cycles provide flexibility to efficiently machine any hole. Special multi-axis filtering automatically switches Machine Coordinate System (MCS) for non-parallel hole selections.

## Feature-based automation

You can take advantage of automatic feature processing that comes standard with NX. Feature recognition, process application and tool selection functions automate machining of many features, including holes, pockets and slots.

## Volume-based 2.5D milling

Solids-based face milling automatically respects part and fixture boundaries while efficiently clearing faces. Cutting volumes are quickly identified based on floor and wall selections. These floors and walls in combination with the in-process work piece (blank stock) result in volumetric cut regions.

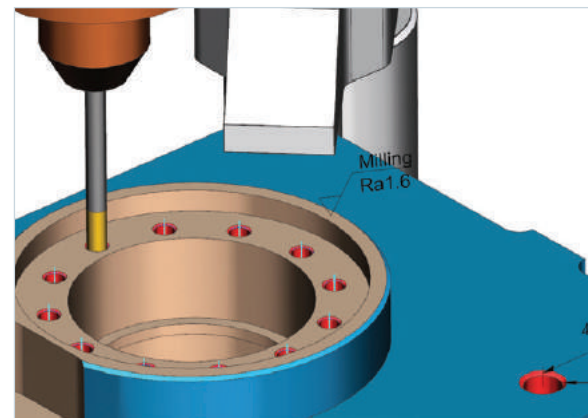


## Boundary cutting

You can trace boundaries the traditional way with either edges or wireframe elements. You can individually specify offsets, compensation, etc. for boundary elements. These boundaries serve as the basis for either single-trace cuts or area-clearing patterns.

## Generic motion control

You can build step-by-step tool motion with interactive drag handles and chain together cut traces with the most efficient transitions.



**Probing cycles**

NX CAM performs on-machine probing with the included Renishaw probing cycles for single-tip probes. You can measure faces, holes and bosses.

**Generalized roughing**

NX CAM roughs any generalized 3D shape with intelligent multi-level volume removal patterns and automatically cuts levels corresponding to horizontal faces. Area clearing patterns include zig, zig-zag, part or blank offsets.

**High-speed machining (HSM)**

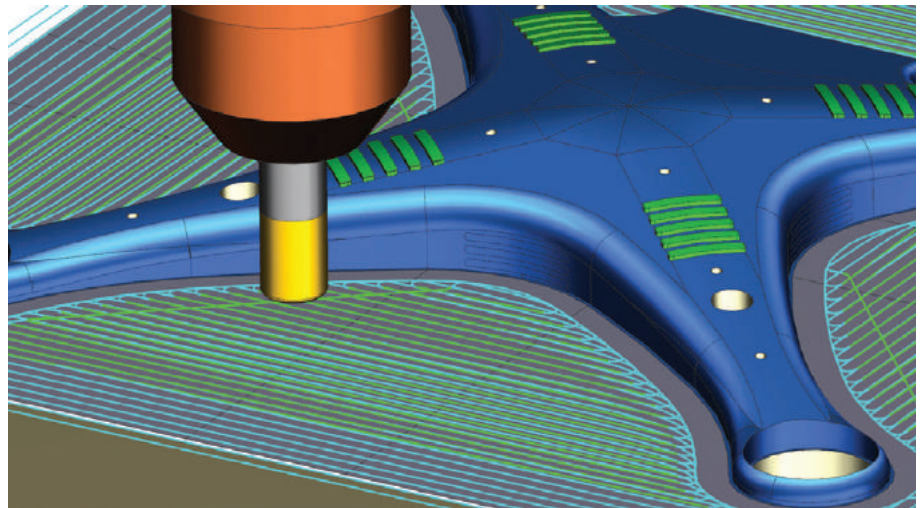
NX provides an adaptive high-speed cutting strategy that helps you achieve a new level of machining efficiency. The intelligent roughing method enables deep cuts and constant tool load that increases material removal rate.

Adaptive milling is ideal for cutting hard material enabling significantly shorter machining cycle, while extending tool life.

**Z-level finishing**

You can create z-level or waterline finishing passes on complex 3D

geometry. Suitable for relatively steep areas, these cuts provide zig and zig-zag options with smooth engages, retracts and stepovers.

**Rest machining**

For re-roughing, NX CAM cuts only the areas uncut by previous roughing operations. You can use smaller tools only as needed for corner cleanout and use longer tools only as needed for deep reaches.

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