NX CAM 3-Axis Milling Add-on

Realize innovation.

Benefits

- High-speed machining maximizes CNC machines investments
- Smooth cutting pattern follows parts' natural shapes to deliver high quality surfaces
- Intelligent rest milling options facilitate associative multi-stage roughing techniques
- Better performance and expended tool life using cutting methods for steep/non-steep areas
- Faster programming and higher quality surface finish with cut region control
- Safe cutting by automatically dividing toolpath that enables use of longer tools for deep reach

Summary

The NX™ CAM 3-Axis Milling Add-on software solution provides extensive fixed axis cutting capabilities for complex surfaces. The add-on enables you to achieve the smoothest toolpath results in steep areas by specifying a projection vector different from the tool axis. You can output the smoothest raster, or zig-zag, cuts with special stepover moves and optimized point distribution to maintain high feed rates and fine finishes.
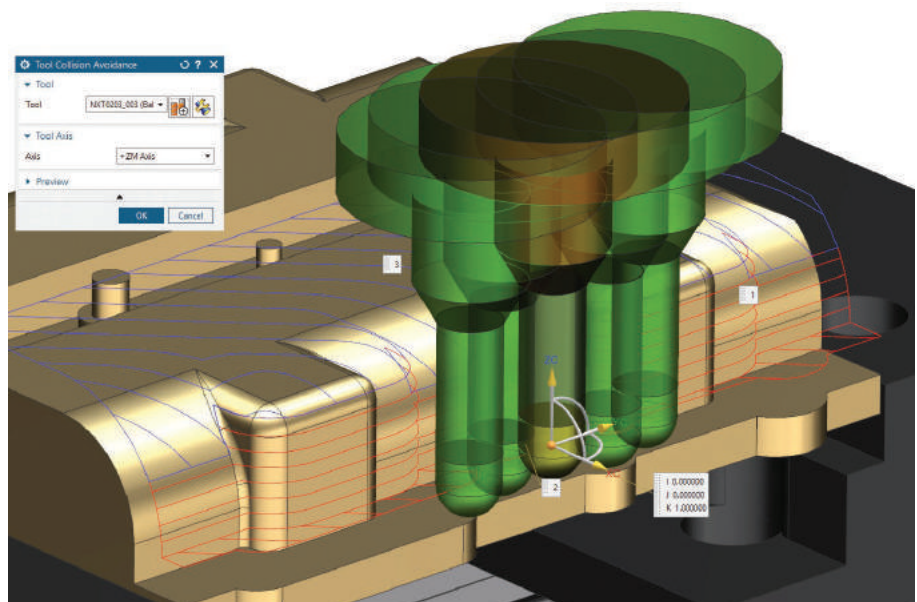
Smooth offset cutting

NX provides smooth offset pattern cuts with special stepover moves and corner treatments to maintain high feed rates and fine finishes. You can cut inside out or outside in.
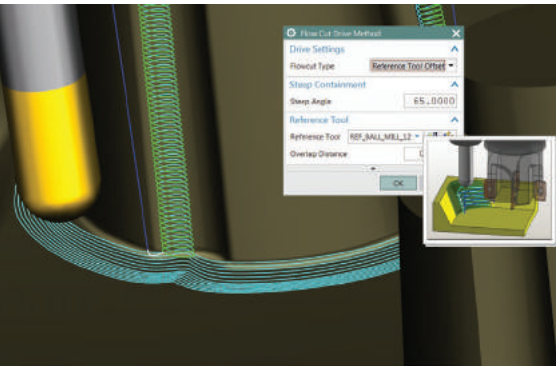
Smooth transitions

Stepover and traverse motions are smoothed to minimize machine jerk and keep feed rates maximized throughout the entire operation.

Optimized cut regions

NX improves cutting and extends tool life by managing steep and nonsteep cutting regions according to the best cutting strategy. Automatic region determinations and manual control let you apply the preferred patterns to various regions of area milling and rest
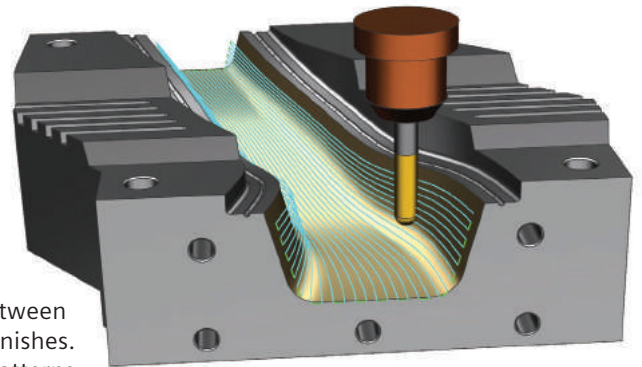
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milling operations. Improve both finish quality and tool life by matching cutting patterns to geometry.

Interpolated passes

NX provides toolpaths that flow organically with your part faces. With these smooth patterns, you can interpolate cutting passes between guide curves for the smoothest finishes. You can even cut true 3D spiral patterns with no stepover marks.

Automatic rest milling

NX discovers uncut valley material remaining from larger diameter tools, including bullnose tools. You can then cut the remaining material in the corners and valleys. NX intelligently organizes valleys and fits patterns appropriate to the steep and nonsteep areas.

NURBS output

You can output non-uniform rational basis spline (NURBS) records for the smoothest machine motion and take advantage of high-level controller capabilities.

Facet machining

With NX CAM, you can use scanned data or other faceted representations, such as stereolithography (STL) and JT™ format for numerical control (NC) programming.
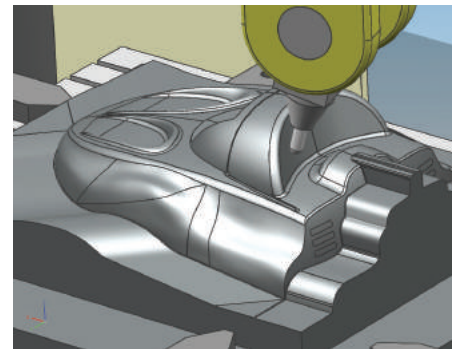
Features

- Raster and offset patterns
- Interpolated patterns
- Automatic valley cutting
- Flexible cut region management for pattern optimization
- Smooth and safe toolpath transition moves