Specialized Multiaxis Programming for Multibladed Parts
One of the more complex 5-axis challenges is generating toolpaths for impellers, fans, turbine blades, blisks, and other bladed parts widely used in power generation, energy transfer, and propulsion. Blade Expert is a powerful, easy-to-use, custom application designed to generate efficient, smooth, and gouge-free toolpaths for these complex parts. It minimizes unnecessary motion at the machine, delivering a highly efficient toolpath with superior finish quality.

Self-Contained Processing
Multiblade parts come in many configurations, but Blade Expert’s common-sense operation process turns these machining challenges into reliable solutions:

- Remove the material from between the blades.
- Finish the blades/splitters.
- Finish the floor.
- Finish the fillets.

Key Features
- Precise, efficient, and smooth cut pattern.
- Supports straight, bull, and ball nose cutters.
- Automatic stock model awareness eliminates air cuts.
- Automatic tool axis control for safe toolpaths.
- Accurate tool tip control for seamless blending and transformation.

Additional Features and Benefits
The interface follows the well-established Mastercam standard used by all other multiaxis toolpaths, ensuring a short learning curve.

The Blade Expert Process

**STEP 1**
Choose or define your tool.

**STEP 2**
Select the operation you would like to perform:
- Rough between blades.
- Finish the blades and splitters.
- Finish the floor.
- Finish the fillets.

**STEP 3**
Define your part features, and let Mastercam go to work.

Note: Mastercam Blade Expert is a Mastercam product that must be purchased separately. It runs on Mastercam Mill 3D, Mastercam Router 3D, Mastercam® for SOLIDWORKS® Mill 3D and Mastercam® for SOLIDWORKS® Router 3D. Mastercam Multiaxis is not required for Mastercam Blade Expert.