

Eliminating Cutter-Path Deviation For Five-Axis Nc Machining

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Abstract : This study proposes a deviation control method to add interpolation points to numerical control (NC) codes of five-axis machining in order to achieve the required machining accuracy. Specific research issues include: (1) converting machining data between the CL (cutter location) domain and the NC domain, (2) calculating the deviation between the deviated path and the linear path, (3) finding interpolation points, and (4) determining tool orientations for the interpolation points. System implementation with practical examples will also be included to highlight the applicability of the proposed methodology.

Keywords : CAD/CAM, cutter path, five-axis machining, numerical control

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