

Deriving Generic Transformation Matrices for Multi-Axis Milling Machine

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Abstract : This paper proposes a new method to find the equations of transformation matrix for the rotation angles of the two rotational axes and the coordinates of the three linear axes of an orthogonal multi-axis milling machine. This approach provides intuitive physical meanings for rotation angles of multi-axis machines, which can be used to evaluate the accuracy of the conversion from CL data to NC data.

Keywords : CAM, multi-axis milling machining, transformation matrix, rotation angles

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