

DELMIA V6

NC Machine Builder

DELMIA NC Machine Builder: Create Virtual NC Machines, Accessories and Controllers

NC programmers benefit from full associativity with V6 product designs and powerful machining automation capabilities which dramatically reduce NC programming and program optimization time.

DELMIA NC Machine Builder (NMB) delivers the capabilities necessary to create virtual NC machines, machine accessories and their controllers for use in NC programming, optimization and validation in a virtual 3D environment. In addition to standard milling, turning and mill-turn machines, complex machines such as milling machines with multiple heads, spindles and turrets, as well as multi-tasking mill-turn machines can be easily modeled. Machine modelers are able to define axis motion parameters, including travel limits, acceleration and speeds. Once the NC machine model is completed and validated, it can be saved as a PLM 2.0 resource in the V6 single IP platform and utilized by all NC programmers throughout the enterprise.



DELMIA V6 Machining

Complete NC Machine and Machine accessory definition including geometry, kinematics and controller information

DELMIA NC Machine Builder users can model NC machines or machine accessories using a combination of prismatic, revolute and rigid joints. Attributes for these joints such as joint name, travel limit, velocity and acceleration limits can be assigned. Users can assign machine home positions and tool change position, including the position's axis priorities. NC machine table and spindle positions can be defined by identifying the tool and workpiece mount parts and axis systems. Finally, accurate modeling can be completed by adding NC Controller information.

Automatic assignment of inverse kinematic solver

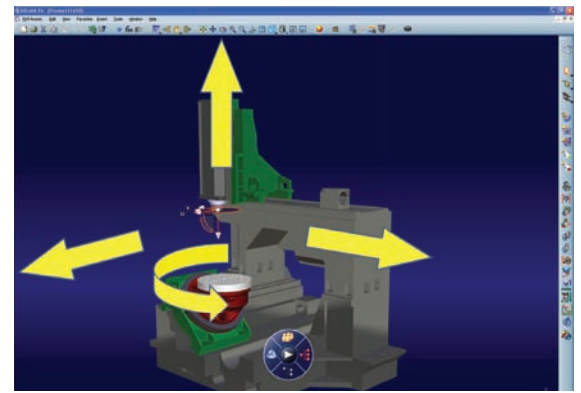
Based on the kinematic type of the NC machine, the specific inverse kinematic solver is automatically assigned without user interaction. This includes support for NC machines with fixed or rotary axes on either the bed or head, interchangeable heads and mill-turn machines with rotary turrets and mill turrets.

Validation of NC Machine kinematics and other attributes through the "Jog" capability

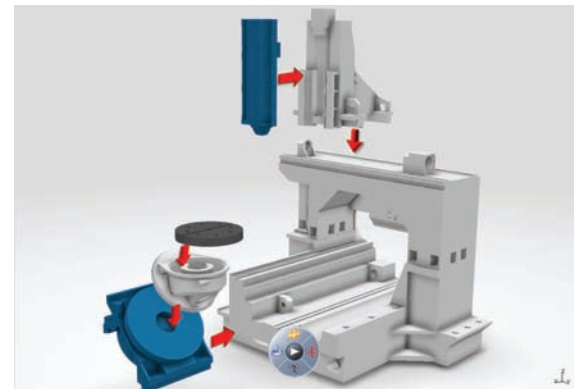
Once the machine definition is complete, the user can validate the machine model using the jog capability. This includes validation of forward and inverse kinematics, travel limits, home positions and the reachable workspace.

Product Highlights

- Single Intellectual Property platform to manage machining resources
- Context-based, immersive user interface
- More efficient NC Machine utilization
- Simplified machine tool kinematic definition



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