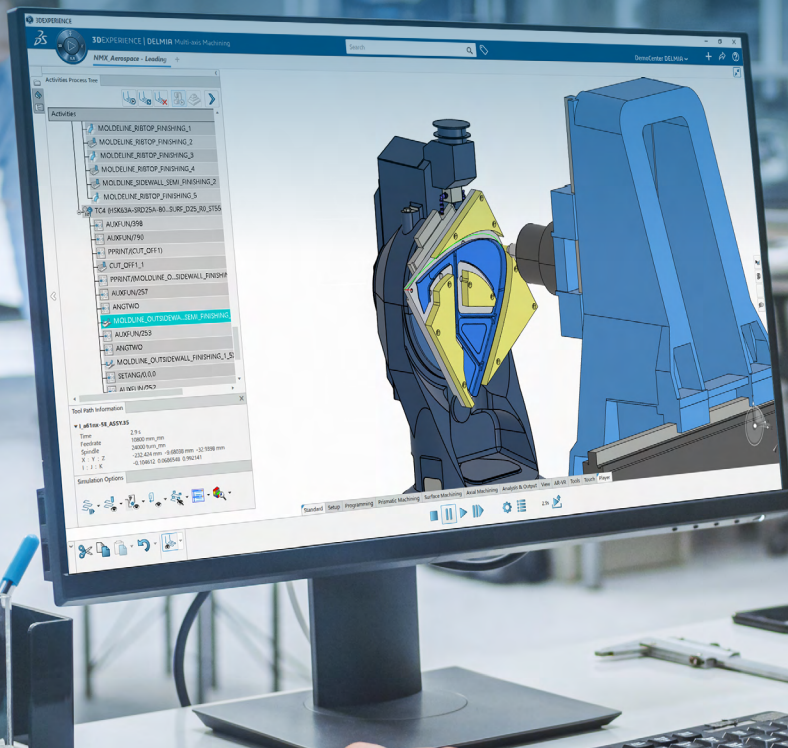


# NC MILLING MACHINE PROGRAMMER

## 3DEXPERIENCE MANUFACTURING & PRODUCTION ROLE



*NC Milling Machining Programmer* offers a complete range of multi-axis milling strategies for the efficient, fast programming of complex parts. All milling operations are supported, along with a full suite of workpiece setup features and high levels of automation. This solution supports machine tool programming from 2.5 to 5 axes, including for robots. Digital continuity is assured and communication errors eliminated with a 'single source of truth' for all shop floor resources, NC processes, and programs. The design-to-manufacturing cycle is significantly reduced via faster programming, early machine behavior validation and ease of making changes.

## MITIGATE PRODUCTION RISKS

Production risks are mitigated via unique levels of ability to manage machining resources. Tool parts are programmed in the context of the machine, so their physical environment is taken into account. The **3DEXPERIENCE®** platform provides strong associativity, which supports concurrent engineering and strong links to the design process. There's fast, easy access to data on machining resources, programs and tool setups. Part modifications are automatically updated and easy to follow, with users getting automatic alerts on design changes. Capacity to assess potential impacts on the machining process and update toolpath programs cuts the risk of production delays.

## OPTIMIZE TOOLS AND COMMUNICATION

NC programmers can control the machining of complex, highly specific areas to create optimal parts. They can optimize NC programs in the manufacturing context, reducing the amount of tools and setup time, and better positioning of parts in the machine. Comprehensive functionality also extends the life of tools. Specific algorithms account for in-process parts to generate collision-free tool paths. Computed motion shows if a machine will work without collisions, while tool changes and machine rotations can be visualized. Digital continuity is also assured, with all actions being done in the same environment. One click detects collisions and with the data in one place, fixes are applied without the need for other systems.

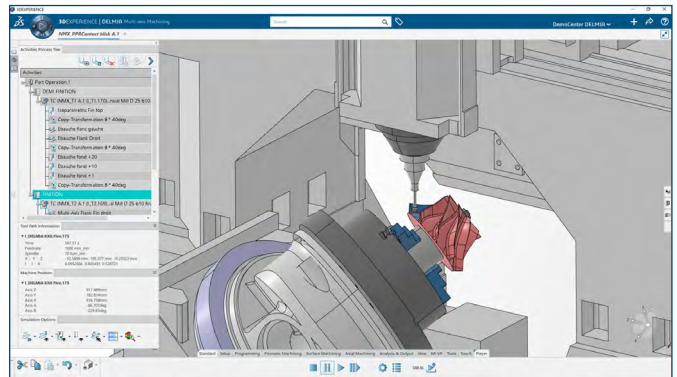
## VALIDATE TOOLPATHS VIA SIMULATIONS

Powerful simulation capabilities support toolpath validation and complete virtual machine simulation. Having used high-efficiency programming tools in a virtual workspace, NC programmers can use simulations to ensure parts fit on the relevant machine. They can simulate the behavior of parts in-situ to reveal any functional problems. Such early resolution of potential errors will drastically reduce costly production delays. The simulation context, run on the **3DEXPERIENCE®** platform, also ensures traceability of a validated task and lets users organize their review in the most convenient way.

## HIGHLIGHTS

Users benefit from sophisticated machining resources, while leveraging Enterprise IP for more efficient programming. These features, combined with powerful operations like flank contouring or advanced prismatic milling, offer a complete milling solution for complex parts.

- Specific cycle for multi-pocket parts
- Dedicated cycles for Aerospace and Turbomachinery applications
- New cycles for stiffeners and impeller hubs
- Dedicated cycles for hard material machining
- Manage a multi-axis machine or a robot
- Share 'in-work stock' model with suppliers and other users
- Associativity with design
- Machine simulation integrated with material removal simulation
- 2.5 axis operations or 5 axis motion
- Store machining processes for complex operations
- Visibility across all NC processes and programs
- Full set of high-end 3 axis milling strategies from roughing to finishing
- Wire Electrical Discharge Machining (EDM) machining
- Traffic light indicators for undefined machining parameters and help icons



Work with high-efficiency programming tools in a virtual workspace

## Our **3DEXPERIENCE®** platform powers our brand applications, serving 11 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3DEXPERIENCE** Company, is a catalyst for human progress. We provide business and people with collaborative virtual environments to imagine sustainable innovations. By creating 'virtual experience twins' of the real world with our **3DEXPERIENCE** platform and applications, our customers push the boundaries of innovation, learning and production.

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