

DIGITAL INDUSTRIES SOFTWARE

NX CAM Wire EDM Advanced add-on

Machine highly accurate parts using 2- and 4-axis Wire EDM cutting methods with a direct access to machine tool technology databases

Benefits

- Program any standard wire EDM equipment, including Agie-Charmilles, Mitsubishi, and Sodick.
- Generate optimized wire EDM operations using machine tool technology databases
- Accelerate programming using feature-based automation
- Safely run unattended operations, with dedicated night strategies
- Use a wide range of cutting strategies for efficient and safe wire EDM machining
- Ensure efficient machining using automatic slug off cutting

Summary

The NX™ CAM Wire EDM Advanced add-on software provides comprehensive capabilities to program wire electrical discharge machines (EDM). It allows cutting of 2- and 4-axis geometry configurations.

Database	Wire dia./mat.	Workpiece material	Workpiece thickness	Taper angle	Die/Punch	Nozzle gap	Surface finish, $\mu\text{m/It}$	Priority	No Cuts	Surface finish, $\mu\text{m/It}$	Avg. speed
mitsubishi_newm2400s_dcb_v11_brd_b13w172_a2	0.25/8s	Steel	Select	Straight	Punch	0.2/0.2	3.0 - 1.6	ACU	1	2.7	6.5
					Die	5.0/5.0	1.5 - 0.8	STD01	2	1.7	6.5
						10.0/5.0	0.7 -	SPB			

Accelerate programming with direct access to machine tool technology databases for wire EDM machines, including Agie-Charmilles, Mitsubishi, Fanuc, Sodick, and Makino.

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Features

- Direct access to machine tool technology databases for all standard wire EDMs
- 2- and 4-axis machining using solids, surfaces or curves
- Collar machining
- Pocketing completely or partially
- Pocketing of ruled surfaces
- Feature-based machining to automatically create complete wire EDM machining processes
- Attended and unattended machining strategies using advanced capabilities

Machine Tool Technology Databases

Access to the original machine tool technology databases for all common wire EDM machine tool manufacturers. The databases can be accessed directly through an interface or imported manually. Access technology databases for Agie-Charmilles, Mitsubishi, Fanuc, Sodick, Makino, and many more wire EDM machines.

Attended and unattended machining

Maximize machine tool operating time with unattended wire EDM strategies like automatic wire threading, tags and automatic start hole creation.

Collar machining

Automate cutting of vertical and tapered areas in one operation. Both features are automatically detected, and toolpaths created. This is an essential task in manufacturing progressive dies.

Gear machining

The gear module enables you to calculate involute gears. The involute gear can be manipulated easily by the input of a profile sheet, the roller distance, test mass across teeth, tip and root diameter as well as tip and root radii. Additionally, the gear module provides all the data and dimensions for machining and inspecting the gear.

Profiling

NX CAM provides internal and external profile moves that are the basis of wire EDM machining.

Feature-based machining

NX CAM offers the productivity benefits of feature-based automation. The machining features for wire EDM cutting are recognized using either automatic or manual selection. Efficient processes are automatically applied to the recognized features. The features start holes are automatically placed at the best possible position.

Engages, retracts, corners and cutter compensation

Define engage, retract and compensation moves to create efficient wire EDM cutting process, resulting in smooth profiles. At the end of each contour optional tags allow the manual removal of cores. It also includes five types of corner relief, which provides specific controls of the toolpath in sharp corners without modifying the part model. This is especially important in cutting tool manufacturing.

Pocketing (No core roughing)

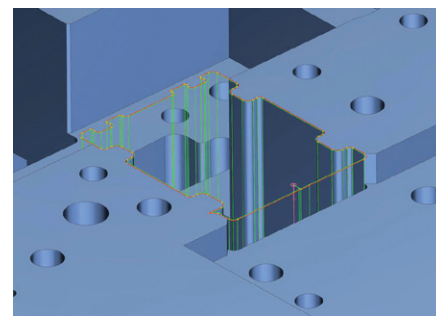
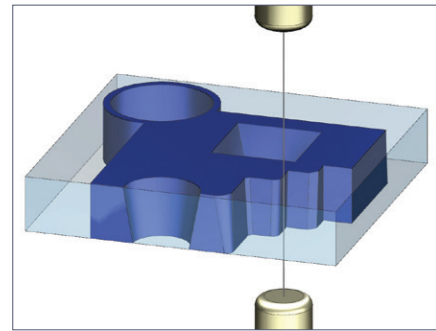
Avoid challenges posed by loose blocks of material by eliminating core volumes. Patterns are trimmed to account for missing material and prevent air cutting. Start holes and open boundaries are supported. Any taper angle can be applied.

Flexible geometry input

Independent of the geometry you start with, you can easily create wire EDM toolpaths. Selection of curves, faces or solids is possible.

Postprocessors

The NX CAM Wire EDM Advanced add-on software has been developed in cooperation with leading machine manufacturers and is being continuously adjusted to the latest functions of the wire EDM machines. High-quality postprocessors and integrated technology databases are available for all products and types of machines.



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