EDGECAM 2025.1

Six Axis Machine Tool Configuration enables EDGECAM to keep upwith demands of machine tool builders



New Machine Configuration

Reacting to the demands of ever changing machine tool builder world, EDGECAM 2025.1 now offer support for customer working with six axis machines tool.

Specifically, Horizontal machine tools with 2programable axis in the ‘head’ can been synchronisedwith a rotary table

Simple 3+2 machining is supported as well complex 5-Axis simultaneous milling can be supported in all configurations.

Users will discover a new “Select Rotary Axes” command which intelligent allows the user to active the preferable axis to machine with.

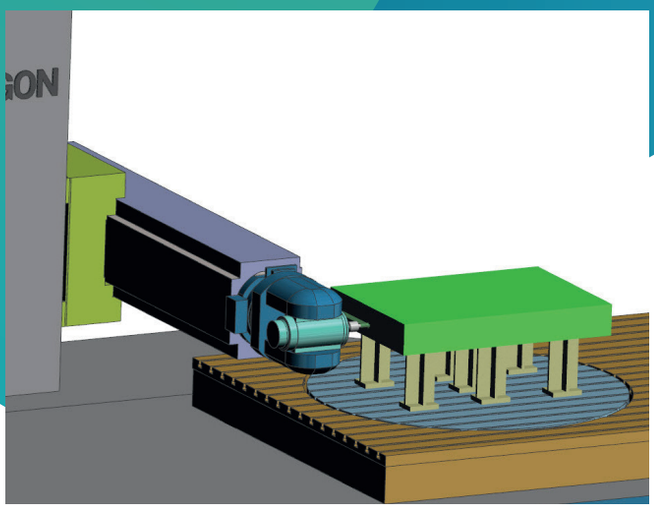
Performance improvements

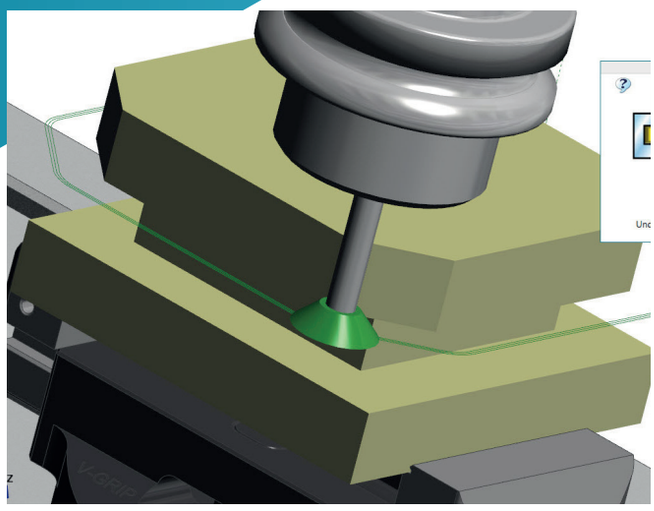
Reducing calculation time by enhancing EDGECAM’s Multi-threading processing capability, has led to a productivity boost when working with the Roughing Cycle in EDGECAM 2025.1 Regardless if you are machiningwireframe or solid models, EDGECAM 2025.1 is producing toolpaths 2-3 times faster than previous versions.

Simultaneous Five Axis Milling Licence

Customers who formerly possessed the Standard Five Axis Milling Licence (EN050-S) will now discover that the Advanced Five Axis Milling Cycle (EN050-A) has been automatically added to their configuration. This effectboth 4-axis and 5-axis cycles.

As the name implies the Advanced cycle offers considerably more functionality and allows users greater toolpath control.





NCSIMUL Essential

Simulation for 3-Axis Milling parts can now be checked inside NCSIMUL Essential – a new component offered in EDGECAM 2025.1. The whole machining assembly including toolstore data is automatically loaded into NCSIMUL Essential where the .CL data is checked for potential gouges.

Users can dynamically interact with the toolpath,pinpointing exactly which line of code is being simulated.Multiple ‘Cross-Section Planes’ can be created tointerrogate the resultant workpiece.

Once simulated, the workpiece can be measured in a variety of different styles – Arc; Thickness; Hole Centre Distance to name but few.

Critical dimensions and stock analysis can be generated through the Comparison tool.

Rough Grooving Cycle Stock Aware (** Rev 1 updated 27//21)

Turning customers will notice significant time savingthanks to the new ‘Use Current Stock’ function found in EDGECAM 2025.1 Rough Grooving Cycle.

Formerly the cycle could not recognise irregular stock shapes and thus was forced to create surplus toolpath.

With the cycle now being “Stock Aware” users will see a decrease in surplus toolpath and thus a reduction incycle time. Depending upon the component part, sometoolpaths could be reduced as much as 50-60%

Roughing Cycle Minimum Helix control

EDGECAM 2025.1 introduces new functionality allowing users to exert tighter toolpath control and reduce cycletime. Specifically, when using the Helix approach typestrategy, a user can now specify the Minimum Helix valuefor the toolpath.

Without this control, the toolpath could sometimes, revertto a Ramp approach strategy where not only cycle timecould be increased but tool life may be shortened.

Machine Simulation TurnMill X Axis on spindle

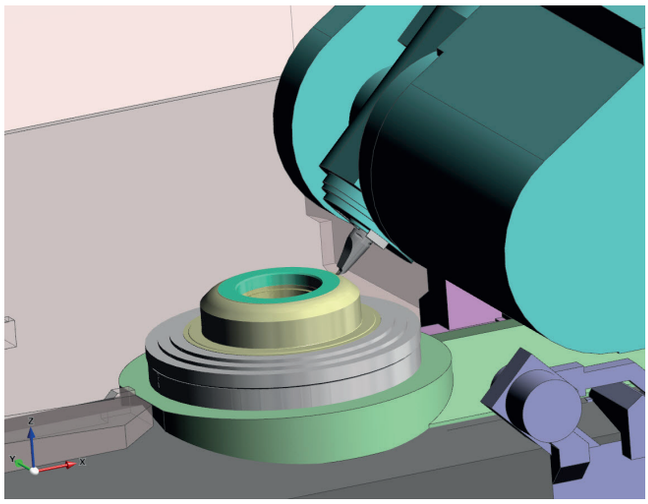
EDGECAM 2025.1 now fully supports simulation of Turn_ Mill CYB machine tool configuration with C axis on the spindle. Perfect code has always been supported but the machine simulation required enhancement as EDGECAM formerly displayed the tool moving towards the workpiece whereas, in fact, the workpiece actually moves towardsthe tool.

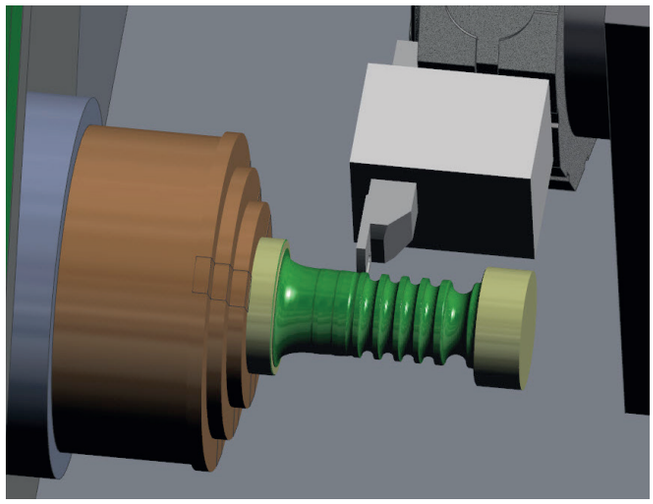
A simple switch within the code wizard parameters now assures both perfect code and realistic simulation.

Text Mill and Slot Cycles - Approach At Clearance added

Both the Text Mill and Slot Cycles now offer better toolpath control thanks to a new option - “Approach at Clearance”.As the new functionality can be found in all other millingcycles, it brings a more consistent feel to the commands.

Users no longer have to add extra CAM instructions to avoid potential toolpath collisions, the cycles will now guarantee that the toolpath initialises at a safe position.





Rough and Profile Cycles Through Limited Hole Feature

When machining a “Limited Through Hole Feature” EDGECAM 2022.1 will now allow you to cut below the Feature depth. Formerly, the toolpath stopped precisely at the Feature depth which in certain instances would cause the toolpath not to fully break through the feature.

Users may now specify a negative depth value to guarantee the toolpath fully passes the feature but, the software is sophisticated enough to clamp the toolpath depth to avoid accidently cutting into the other side of the part.

Rough Waveform Turning cycle - Smooth option added

The ever-popular Rough Waveform Turning cycle has seen a further enhancement in EDGECAM 2025.1. A new toolpath Smoothing option has been added which converts the line segments into fitted arcs. Benchmark tests have proven the new command can lead to NC code reduction in the regionof 75%. Moreover a smoother toolpath can reduce machinetool wear and tear.

Finish Groove Cycle

Turning customers will now discover extra functionality when using the ‘Break Corner’ command. Addressing specifically the first and last corners on a groove feature, formerly, the cycle did offer the ability to break thecorners separately. EDGECAM 2025.1 now offers foursettings – None; First; Last and Both. The new featureoffers tighter toolpath control and prevents gouging whena groove is close to a neighbouring feature.

Wire EDM – new Strategy and extended controller support

A new post processor is available for the AC Uniqua machine. As this particular machine controller has grown in popularity, EDGECAM 2025.1 has responded by supporting this controller type.

Furthermore, technology tables for Accutex (AU-700 IA) has been updated thus guaranteeing customers have the most up-to-date NC output.

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