



**HEXAGON**

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**Release Notes**  
**ESPRIT EDGE 2025.1**

24 February 2025

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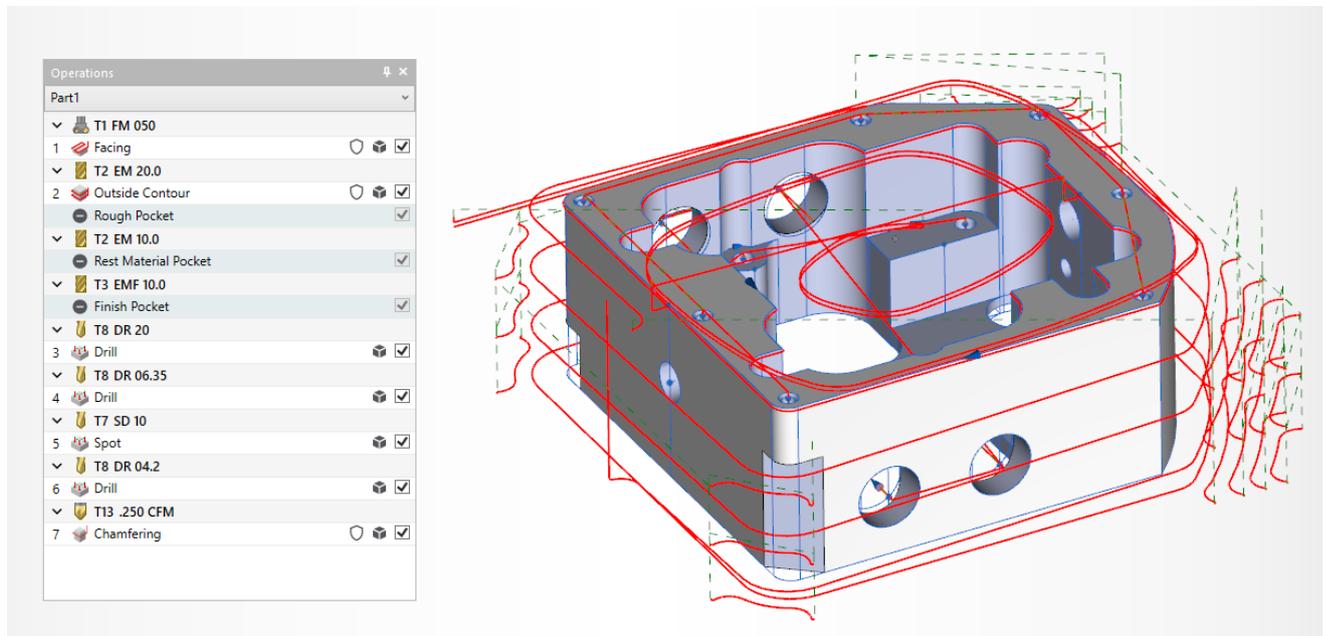
# Welcome to ESPRIT EDGE!

We are excited to announce the release of ESPRIT EDGE 2025.1.

This update brings a host of new features, performance improvements, and bug fixes designed to enhance your experience and improve the overall functionality of the software. We recommend reviewing these notes carefully to understand how these changes may affect your use of the product.

Thank you for your continued support and feedback, which helps us make ESPRIT EDGE better with each release.

## Operation Suppress/Unsuppress

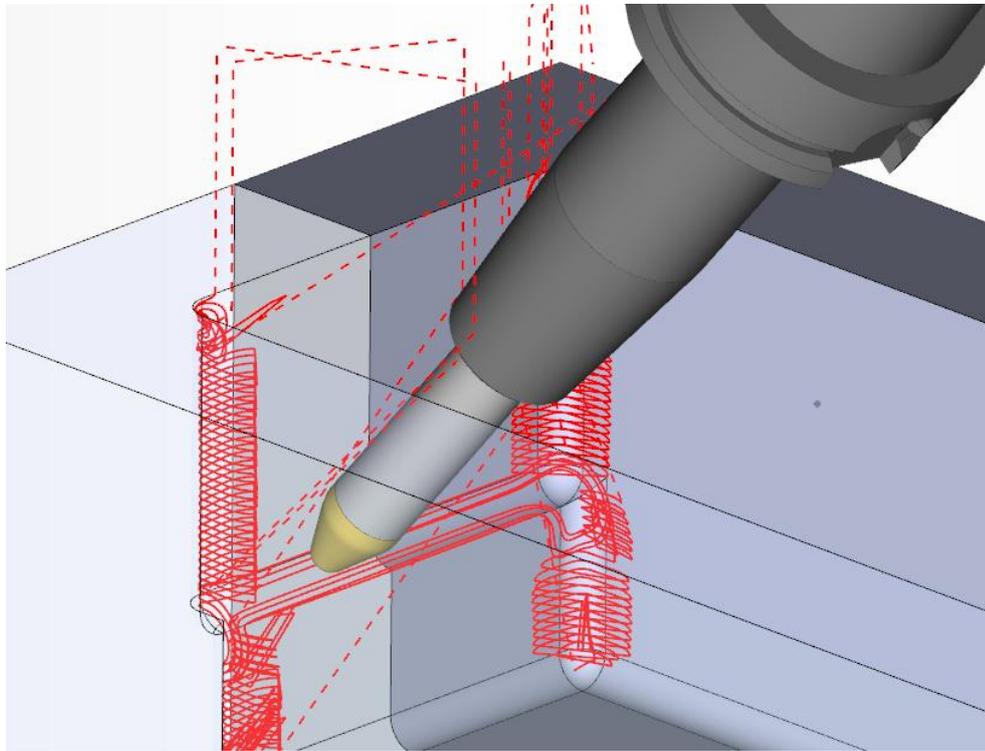


On suppress/unsuppress of an operation, with ESPRIT EDGE 2024.4, the system preserved values for:

- Work Offset
- Rotary Solution
- Collinear Solution

With ESPRIT EDGE 2025.1, the system adds preservation of tool change position on suppress/unsuppress.

## 5-axis Corner Remachining: Steep and shallow strategies



5 Axis Remachining has been released in EspritEdge 2024.1 and offered an automated solution for removing residual material in corners, complementing main 5 axis finishing operations. The cycle continues its evolution with possibility to apply different machining patterns in steep and on shallow areas: Apply a Z-level strategy for steep corners, and change passes to a concentric patterns for shallow corners.

By combining different patterns, the system generates a more efficient toolpath that prevents overengaging the cutting tool.

## Preview: Hexagon Copilot



**Hexagon Copilot**  
AI help assistant for ESPRIT EDGE

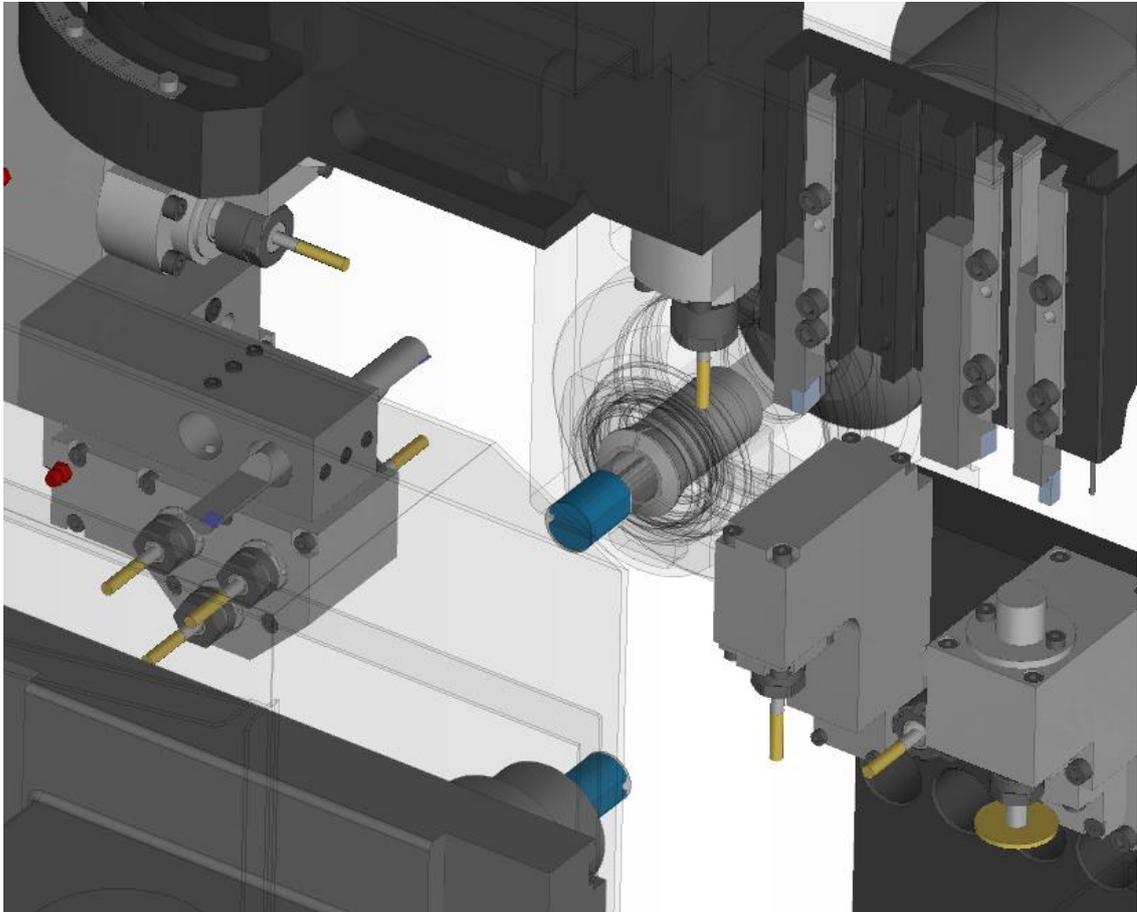
- ✓ Subject matter expertise
- ✓ Immediate response times
- ✓ Tailored responses

ne:::us

Hexagon Copilot is an AI help assistant integrated to ESPRIT EDGE. Dialogue with Hexagon Copilot and get immediate response regarding any questions about how to use ESPRIT EDGE.

The Hexagon Copilot is in Preview for ESPRIT EDGE 2025.1. Go to File > Options > Preview to activate the assistant. Hexagon Copilot is hosted on Nexus and requires a Nexus account for access.

## Preview: ESPRIT EDGE for Swiss-type machines



ESPRIT EDGE for Swiss-type machines is coming soon. ESPRIT EDGE 2025.1 introduces of new features dedicated to Swiss and more precisely for the programming of CITIZEN lathes and the support of the different machine's macros and functions.

### Swiss – Support tool mounting blocks

Mounting blocks are a new type of components that enables changing the configuration of a turrets, adding stations, mounting positions and completing the controller definition for the control of tools mounted in mounting blocks. Already introduced in a previous version of ESPRIT EDGE, mounting blocks are fully developed with possibility to swap, delete, modify mouting blocks, an API is available, and several details were worked out for a better user experience.

### Swiss – Rechucking and use spindle as support

A new barfeed type within the barfeed cycle enables programming of a rechucking sequence. Rechucking consists in moving the bar in the main spindle in order to reach the end of a part that extends beyond the Z1 axis limits.



Program a pickup operation before the rechucking, then program a barfeed/rechucking and specify with barfeed length, how much the part should move along Z1.

If barfeed length is superior to the available Z1 stroke of the machine, the system will proceed automatically to multiple rechuckings until the final position is reached.

### **Swiss – Management of tool offsets for CITIZEN machines**

Within the controller definition of the digital twin of the machine, machine authors can declare new gage points for all stations and for all the possible mounting blocks that are compatible with the machine.

ESPRIT EDGE 2025.1 dissociates the tool mounting point from the tool gage point.

This new capability allows full support of the advanced tooling configuration of CITIZEN lathes.

### **Swiss – Management of coordinate system for CITIZEN machines**

Mounting blocks can change the orientation of a tool and this can impact the machine coordinate system. For instance, X-axis can change from horizontal to vertical orientation from one station to another.

Like for the management of tool offsets, the controller definition of the machine digital twin has been expanded to predefine all the axis configurations of the machine.

The result is a seamless experience, the programmer doesn't need to worry about offsets and axes, the system has an implicit knowledge of how the machine is controlling tools.

### **Swiss – Machine Tool Builder, definition of machining patterns**

Machining patterns is a key concept of Swiss machines. Machining patterns can enable superimposition, composite axis, synchronization of axes, prepositioning of axes.

With Machine Tool Builder 2025.1, machine authors will find a user interface for definition of all the machining patterns.

# Issues fixed in ESPRIT EDGE 2025.1

Version 2025.1.2508.2605

Description	Issue Number (s)
API – Change API help template for Nexus help system	
API – API Issue with Machine Operations List	
API – Cannot export gdml files	
Automation – False link error preventing ProPlan AI upload	SW 314836
Help documentation – Part Profile is listed under the features ribbon in help, but exists on geometry tab in help	SW 315045
Help documentation – Missing help for NC Editor	SW 313771
Help documentation – Regression ESPRIT Post Help	2222064
Knowledgebase – Custom tool profile lost after import from KBM	
Knowledgebase – Incorrect Control Point for Pick Up when using KBM	2396100
Knowledgebase – KBM performance issues.	2396092
Knowledgebase – Fixing KBM Regression in Esprit Edge	
Knowledgebase – Loading tools after importing them doesn't work	2429782, 2430799
Knowledgebase – Invalid adapter item files error	
Links – Incorrect link when sub spindle off home	
Links – Link is green, but simulation shows collision. This did not happen in 2024.2, but it happens in 2024.3	2391276
Links – Link is green, but simulation shows that tool moves though the part	
Links – Minimum Angle Change for Safe Retract not working in some cases	
Links – Next Gen Links: with Safe Restart = Yes Drilling Canned Cycles get interrupted.	2382236
Links – Next Generation Links: link to retract from inside a hole changed from 2024.1 to 2024.3	
Links – Safe Location position in collision for a tool: add a new specific error message.	SW 308913
Links – With Next Generation Links Plane gets deactivated for internal links in drilling when Optimize Rotation=Yes	
Links – Wrong link calculation	2014021
Links – 'Safe Restart(Repeat Modal Commands)' doesn't work correctly.	2003540
Links – Movement error with polar interpolation	
Milling – Can't use deburring on setup2 at 180 degrees	2388221

Description	Issue Number (s)
Milling – Chamfer Type Angle Check returning incorrect error	2408645
Milling – Countersink Drill Total Depth not initially calculated	SW 305364
Milling – Hole Clearance vs Full Clearance Output Inconsistent	
Milling – Incorrect Chamfer Angle Check on Chamfer Cycle	2403314
Milling – Inverse time feed incorrect for helical motion	
Milling – Missing some wall finishing passes with Last Z Level	2035839
Milling – Open Pocket Gouges Bottom Blend Fillet	SW 275225
Milling – Regression: Contouring cycle with Stock automation active starts from the middle of the part	
Milling – Retract position suddenly changes during the drilling cycle	2258492
Milling – SolidMill Pocketing Plunging tool into material	SW 280910
Milling – Some Wall not machined in correct order in Pocket operation	SW 277558
Milling – Spiral option makes the toolpath depth offset.	2400388
Milling – This 4axis milling should be calculated, but an error message displays and toolpath cannot be made.	2233663
Milling – Tool does not respect entry options with Use Previous Stock=Yes and clips stock	SW 289329
Milling – Using Stock automation and plunge at point causes tool to plunge at P0	SW 296141
Milling 5-axis – 5x Deburring not accepting edge or loop	SW 313057
Milling – Breakthru Slowdown does not work correctly with certain stock types	SW 283633
Milling – Chamfer Type Angle Check returning incorrect error	2408645
Milling – Contouring cycle with Stock automation starts from the middle of the part	2136285
Milling – Incorrect Chamfer Angle Check on Chamfer Cycle	2403314
Milling – Open pocket gouges bottom blend fillet	SW 275225
Milling 5-axis – 'Oneway - Step Direction' and 'Oneway - Minimum Distance' doesn't work in Impeller 4x	
Post processor – CL Changes - Missing NC Code from Secondary Setup with Sub Program Output	
Post processor – Ex_Sync not output for Wrap Operation internal syncs	
Post processor – Machine Crash from wrong coordinate output after LinkToOperation using WOT=Rotate	
Post processor – Missing NC Code from Secondary Setup with Sub Program Output	
Post processor – Park Cycle outputting unnecessary moves	SW 314851
Post processor – TC1RotaryAxis1StartAngle value is not correct	

Description	Issue Number (s)
Post processor – Rotary output incorrect when executing 180° move with maximum rotary increment of 179.999	SW 315970 SW 315609
Report Generator – Stock Bounding Box not output in Report Generator	SW 312458
SIMNC – Create doesn't end specific profile	2424704
Simulation – Part disappears during Simulation	2179910
Simulation – Workpiece disappears when simulating	SW 279685
Simulation – Wrong simulation after TC with collinear shift	2390715
Simulation – Error fixtures are not synchronized	
System – Adding a sync node across a Transfer setup change corrupts program manager and crashes ESPRIT	
System – Crash - Deleting modular tailstock when tailstock operations are still present	
System – Crash log, crash on operation reorder	
System – Crash log: Deleting workpiece in part setup	
System – Crash log: system crash report	
System – ESPRIT Crash - Cannot Edit SolidTurn Contouring Op	SW 313575
System – ESPRIT Crash - Can't swap machine setup	
System – ESPRIT Crash - Remounting collet jaws	
System – ESPRIT Crash - Save .esprit file after importing SolidWorks Assembly	SW 315315
System – ESPRIT Crash after calculating stock	SW 312693
System – Face colors not retained when creating GDMLs	314730
System – Issue with .esprit format for Open and Save As in Korean system language	
System – Missing solids in an Esprit Edge file	2242353, 2244217
System – Pocket Feature selection causes software to crash after feature recognition	2403472
System – Program Info - Exit Bug Causes Esprit to Crash	
System – System crash after changing tool of Park operation with property browser	2405562
System – Workoffset, Automatic Rotation reset from no to yes	2403545
System – Application crashes when moving park cycle below transfer	
System – Crash after deleting modular tailstock when tailstock operations are still present	Crash log
System – Crash after deleting part in part setup	
System – Esprit hanging on rebuild operations	Crash log

Description	Issue Number (s)
System – Hide consumed stations from park drop down list	
System – Issue with .esprit format for Open and Save As in Korean system language	
System – Tool assembly related crash	Crash log
System – Add Jaw related crash	Crash log
System – Local shifts are reset to 0 after reloading the file	2428209
System – Links calculation is failing	
System – Catch exceptions from GetMacroItems() function	
System – Crash when moving panes in Korean language	
System – Crash after opening a file	Crash log
System – Provide the rotation between MCS and MCS override for polar interpolation	
System – Cannot open file, error creating machine setup, 2-bytes characters in reference file name	
System – Crash related to profile data and contour	Crash log
Tooling – Incorrect tool offset values when using mounting block	
Tooling – Mounting Block Cumulative Transformation	
Tooling – Changes for cumulative offset on tool edit is confusing	
Turning – 3-Axis Turning with "Set Default WOT" sets to None from RTCP	2389074
Turning – 3-Axis Turning: Collision when transitioning to another area	
Turning – Cannot Align Tool in Turning Plane with chain features	SW 308691
Turning – Cannot Create NC Code when Edges 2 or 3 of FreeTurn tool are Selected	
Turning – Cut too much material	
Turning – Improve Front/Back Clearance Default value for FreeTurn insertfor 3-axis turning	
Turning – Issue with one Steady Rest and two fixture adapters	
Turning – Position Auxiliary Axis can't be returned for tailstock without pickup	
Turning – Rough Turn Stock Diameter return 0 for Point and Line selection	2220088, 2271690
Turning – Work offset transformation incorrectly set for barfeed operation	2401743
Turning – Cannot Create NC Code when Edges 2 or 3 are Selected (FT Tool)	
Turning – Cutting too much material	2391841
Turning – Update Profit Turning transition and loop radius	

Description	Issue Number (s)
Turning – Updated Front/Back Clearance Default value for FT insert with 3-axis turning	
Turning – Using new blend radius rule for PT rolling unit test cases	
Turning – Cannot create steady rest operation	2405205
Wire EDM – Incorrect Wire Tilt	SW 312196
Wire EDM – Primary Stop doesn't pause simulation	SW 313210
Wire EDM – XML Database Fanuc Robocut iC DB	2411974
Wire EDM – XML update for database Mitsubishi	2412611