Eureho Virtual Machining

EUREKA 9 – What's New

INDEX

- . Eureka Internal Reviewer
- **2.** Editor with Colored Syntax
- **3.** Enhanced JOG for CNC Simulation
- 4. Laser Scan Module
- 5. Playlist Module
- 6. Enhanced Eureka Additive Module with 3+2 Strategy
- **7.** Collision Detection Diagnostic
- 8. New Tool Interference and Near Missing Management
- **9.** Cutting Conditions Control on Turning
- **10.** Saving STL Files with an Offset
- **1.** PDF Report
- 12. Eureka Batch

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Eureka Internal Reviewer

- Go forward/backward in the simulation updating the stock and reaching warnings/errors very fast
- Slider can be dragged to navigate in the simulation history

Simulation history		
←		
dmu70.Heidenhain		
	2	
		-
Messages Simulation history		
Merilagis Strukterin Insterr		1
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Editor with Colored Syntax

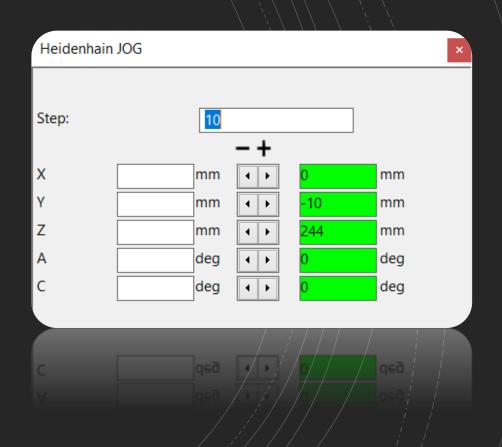
- Color your ISO and APT code to better understand the syntax
- Define color for each command
- Fully customizable

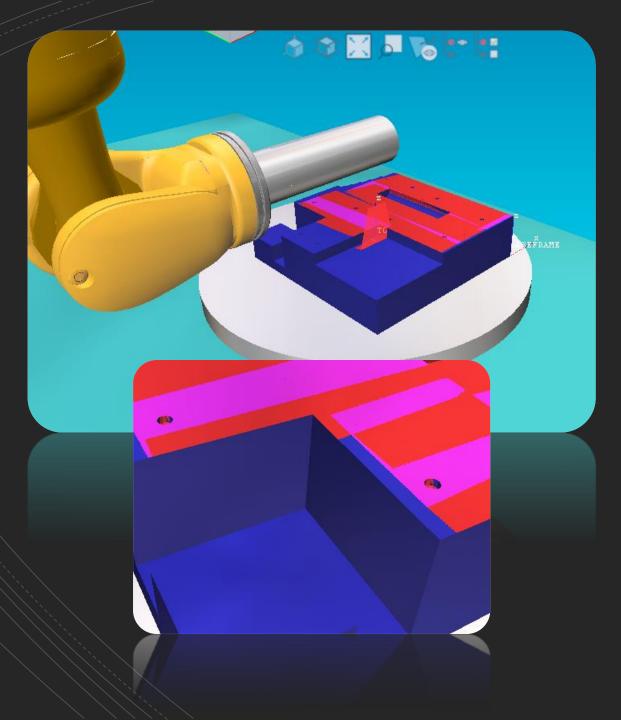
908 M3 909 PLANE SPATIAL SPA0 SPB0 SPC0 STAY 910 PLANE RESET STAY 911 CYCL DEF 7.0 DATUM SHIFT CANCEL 912 CYCL DEF 7.1 X0 913 CYCL DEF 7.2 Y0 914 CYCL DEF 7.2 Y0 915 L A-90 C0 R0 FMAX 916 CYCL DEF 7.0 DATUM SHIFT 917 CYCL DEF 7.0 DATUM SHIFT 917 CYCL DEF 7.1 X0 918 CYCL DEF 7.2 Y40 919 CYCL DEF 7.3 Z0 920 PLANE SPATIAL SPA-90 SPB0 SPC0 STAY 921 L X-137,613 Y156,944 FMAX 922 L Z2 FMAX

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	Block	
-	Comments	
	Rule name	Comments
	Color	008000
	Bold	True
	Italic	False
	H Block	
_	CYCLE DEF	
	Rule name	CYCLE DEF
	Color	ff00ff
	Bold	True
	Italic	False
	H Block	
1	Block / ////	
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Enhanced JOG for CNC Simulation

• Powerful functions to manage the rotary axes (CNC machines)



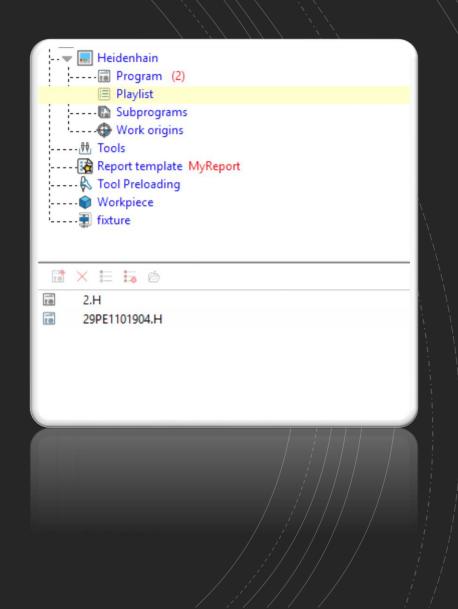


Laser Scan Module

- Simulate the scan process
- Configure the laser blade as the actual one
- Analyze the workpiece to detect shadowed areas
- Detect overlapped zones

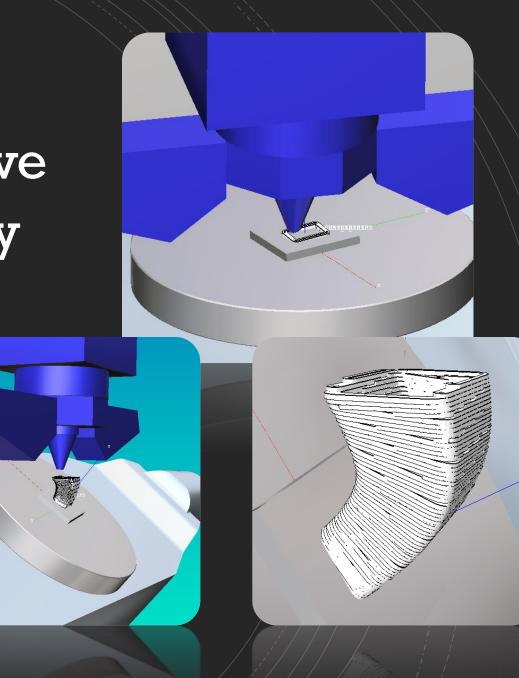
Playlist Module

- Possibility to load more than one program
- Auto-functions at the end of the program
- Switch automatically to the next program



Enhanced Eureka Additive Module with 3+2 Strategy

- Use the 4th and 5th axis to optimize the slicing
- Define the slicing direction, inside the workpiece parameters
- Define one or more slicing directions
- All inside Eureka



Collision Detection Diagnostic

• Identify which 3D models slow down the simulation in order to optimize performances

CPU

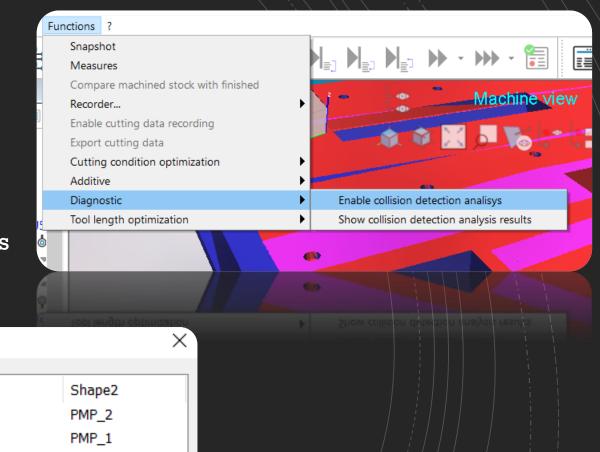
Shape1

35

Cylinder

J1 J2

J3 J5



• Great influence on performances

New Tool Interference and Near Missing Management

 Define how much the tool is allowed to plunge inside the workpiece OR

how close the tool can be to the workpiece before raising a warning

- Different parameters for the cutter and the finished part
 - Cutting part
 - Non-cutting part

Configure tool/workpiece interference check		
s performances:	Hi-Accuracy Performance	Quality

Interference check	×
Cutting part	
Verification type	Allowed interference
Max interference	0.100000
Non-cutting part	
Verification type	Near miss
Safety distance	0.500000
-	
Safety distance	0.500000 1 1 1

Material removal: Visualization quality vs

Cutting Conditions on Turning

Too

• Toolpath Analysis and Optimization now available also for Lathes and Mill-Turn Machines

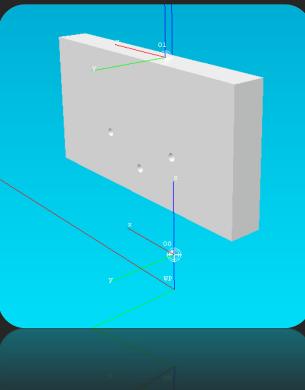
ng conditions					× Q	\$ 6 7 6	
parameters Verification Optimization							
Max air cut feed (MMPM):				40000			
In cut							
Max feed in cut (MMPM): Fmax / Fprogrammed Fmin / Fprogrammed				20000 1.2 0.5			
Volume rate (cm^3/min):	Optimization	50	Limit	70			
Chip thickness (mm):	Optimization	0.1	Limit	0.2			
Power (kW):	Optimization	5	Limit	20			
Torque (Nm):	Optimization	0	Limit	0			
Chip width (mm):	Optimization	0.1	Limit	0.2			
Chip cross section (mm^2):	Optimization	0.01	Limit	0.04		a a a a a a a a a a a a a a a a a a a	
Roughness profile depth (mm):	Optimization	50	Limit	100			
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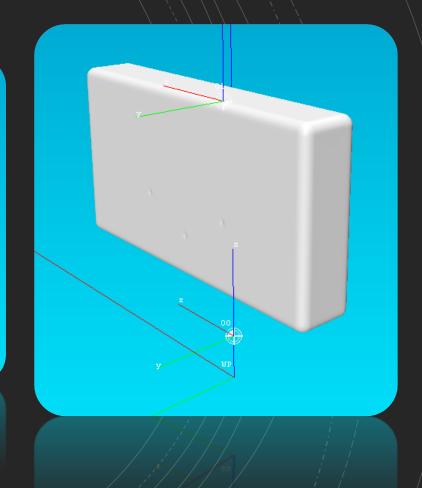
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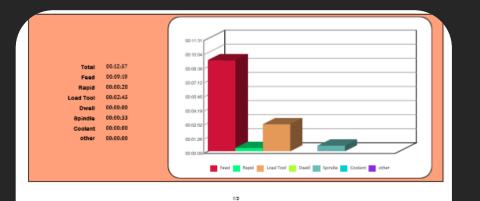
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Save STL Files with an Offset

• Add an offset to a 3D Model and save the resulting STL file







Tool list								
Code	Туре	Diameter	Officet X	Offset Y	Offset Z	Units	Holder	Holder
1	MILL	62.99	0		118	mm	ATTACCOHSK-FRESA D63-98MM	
2	MILL	20	0		175	nn nn	ATTACCOHSK-PINZAD48-100MM	
3	MILL	20	0		170	nm	ATTACCOHSK-PINZAD48-100MM	
4	MILL	12	0		140	mm	ATTACCOHSK-PINZAD48-100MM	
5	MILL	5	0		118	mm	ATTACCOHSK-D22STANDARD- 96MM	
6	DRILL	7.3	D		148	mm	ATTACCOHSK-022STANDARD- 96MM	
7	MILL	16	0		145	mm	ATTACCOHSK-PINZAD48-100MM	

	Tool			Distance	
Code	Туре	Diameter	Feed(in)	Rapid(in)	Feed(mm/s)
3	NILL	20	58	91	3098
1	NILL	62.99	604	629	5559
2	MILL.	20	57	88	3019
3	NILL.	20	66	142	3178
2	NILL.	20	50	127	3154
4	NILL	12	13	89	1510
5	DRILL	5	10	89	885
0	NILL	7.3	2	83	867
3	MILL.	20	17	57	3651
2	NILL.	20	30	124	3475
7	NILL	16	11	71	14100

Code Feed Rapid Load Tool Dwell Spindle 3 00.0048 000001 0000016 000000 0000003 5 000013 0000016 000000 0000003 227 2 23 0000106 000000 0000003 23	Cooint 00:00:00 00:00:00	Other 00:00:00 00:00:00	Total 00:01:07 00:05:02
1 00.04:36 00:00.05 00:00:15 00.00:00 00:00.03 23 38 3 00.04:38 00:00:00 00:00:02 00:00:00 00:00:02	00:00:00	00:00:00	00:05:02
2-2 33 1 00.011.01 00.001.02 001.020 00:00.02			
32 1 20191-34 (0100106 0000012 0010030 0000012	90.00.00	00.03.00	
2 00.00 00 00 00 00 00 00 00 00 00 00 00	90-00-00	00.00.00	
	90'00'09	00100-00	00.00.05
3 00100148 00100101 00100112 00100100 00100103	90.00.00	00100100	00-0+ 01
Code Feed Rapid Load Tool Dwell Spindle		OBINL	
Tool/Time			

PDF Report

- Machining time
 - Rapid
 - Feed
 - Tool change
 - Head change
 - Etc...
- Information for each tool
 - Rapid
 - Feed
 - Etc...
- Origins

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Eureka Batch

- Simulate in background
- More than one ".epf" file
- Each simulation can output
 - Report
 - Evdf (Eureka Mobile)
 - Evpf (Eureka Viewer Pro)
 - Stock/design comparison results
 - Log files

Eureka authorized reseller



FOR MORE INFORMATION info@goengineer.com 800.688.3234