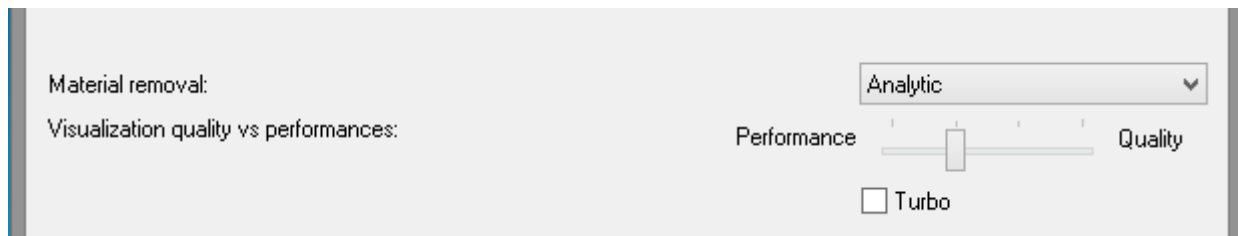




What's new in Eureka 7.1

Improved Analytic Material Removal technology with “Turbo” option.

The Analytic Material Removal technology has been completely revisited to increase performances. A “Turbo” option is available in the settings. Although it disables some features like the detailed view, the possibility to change resolution while simulating and the estk output format, the turbo option can boost the performance up to 500%.

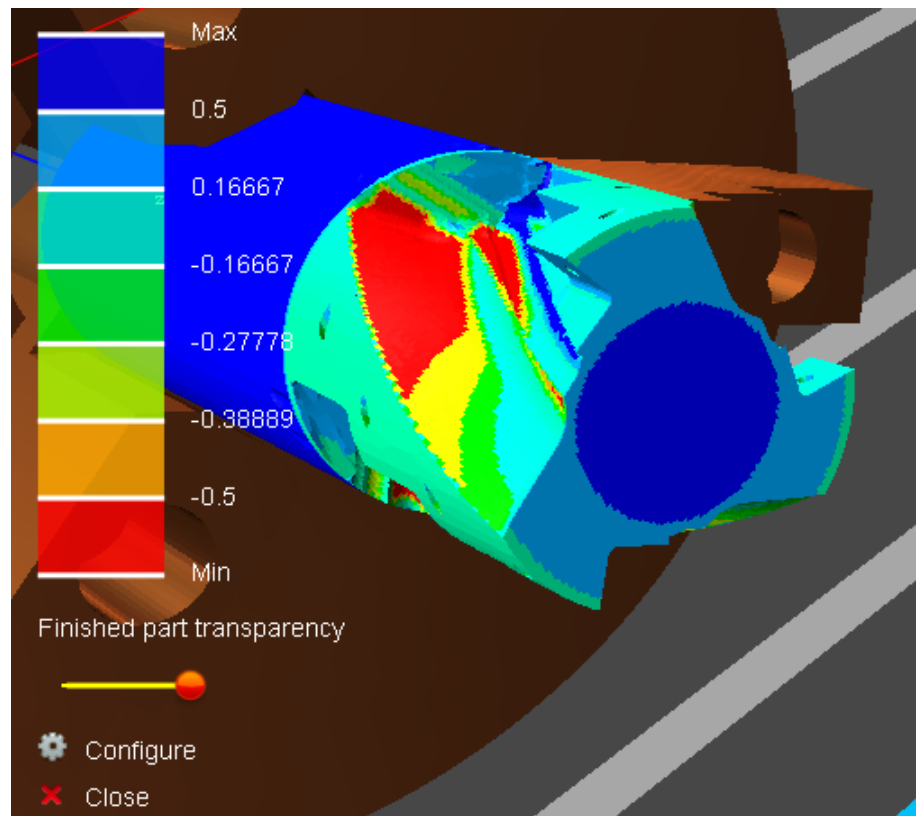


New stock/design Compare Tool

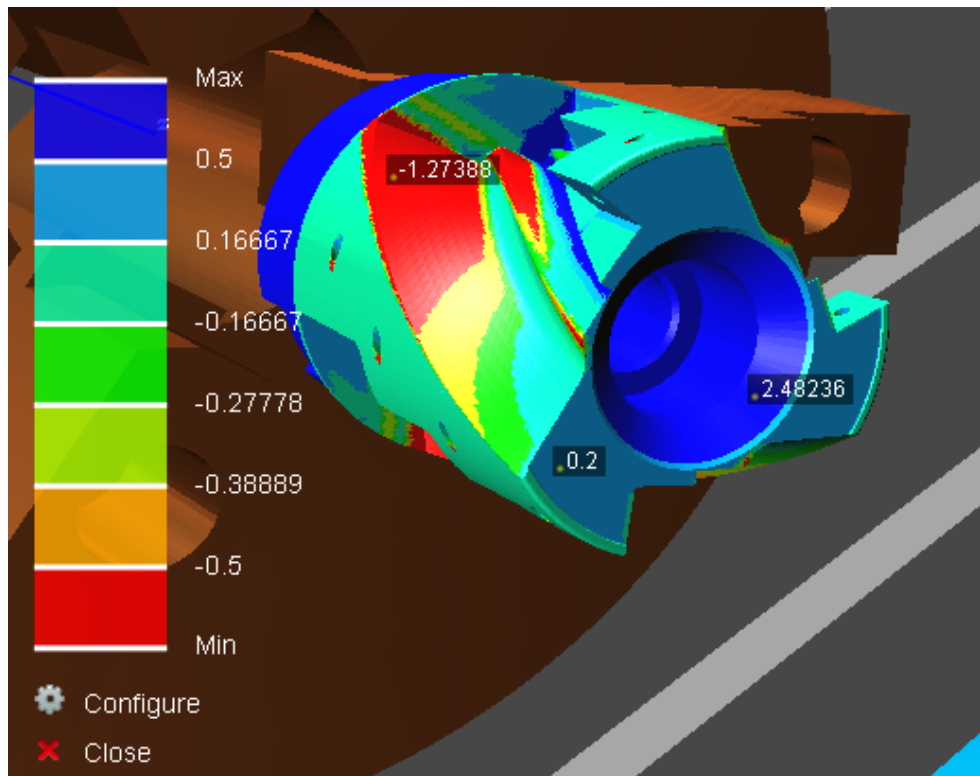
The compare tool, now only available for analytic material removal technology, is directly available in the main 3D view.

Two different representations are available:

1. Coloring stock. Faster but with less details.



2. Coloring finished.
Slower but with more details.



All levels can be defined separately. For each level, both the color and the range are configurable. Right-click on the level list to open the context menu and add/remove levels.

Levels configuration

Color	Start	End
	0.5	Max
	0.16667	0.5
	-0.16667	0.16667
	-0.27778	-0.16667
	-0.38889	-0.27778
	-0.5	-0.38889
	Min	-0.5

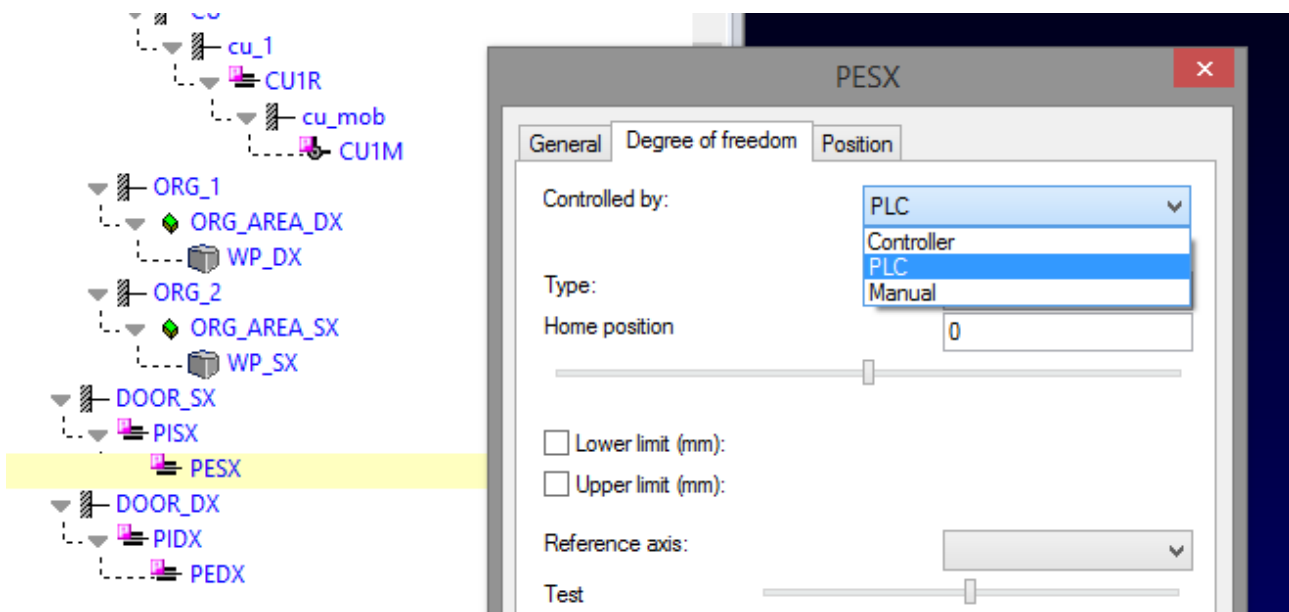
Stock
 Finished

OK Cancel

Clicking on the 3D representation, a measure of the distance stock/finished on that point is displayed.



PLC Axes

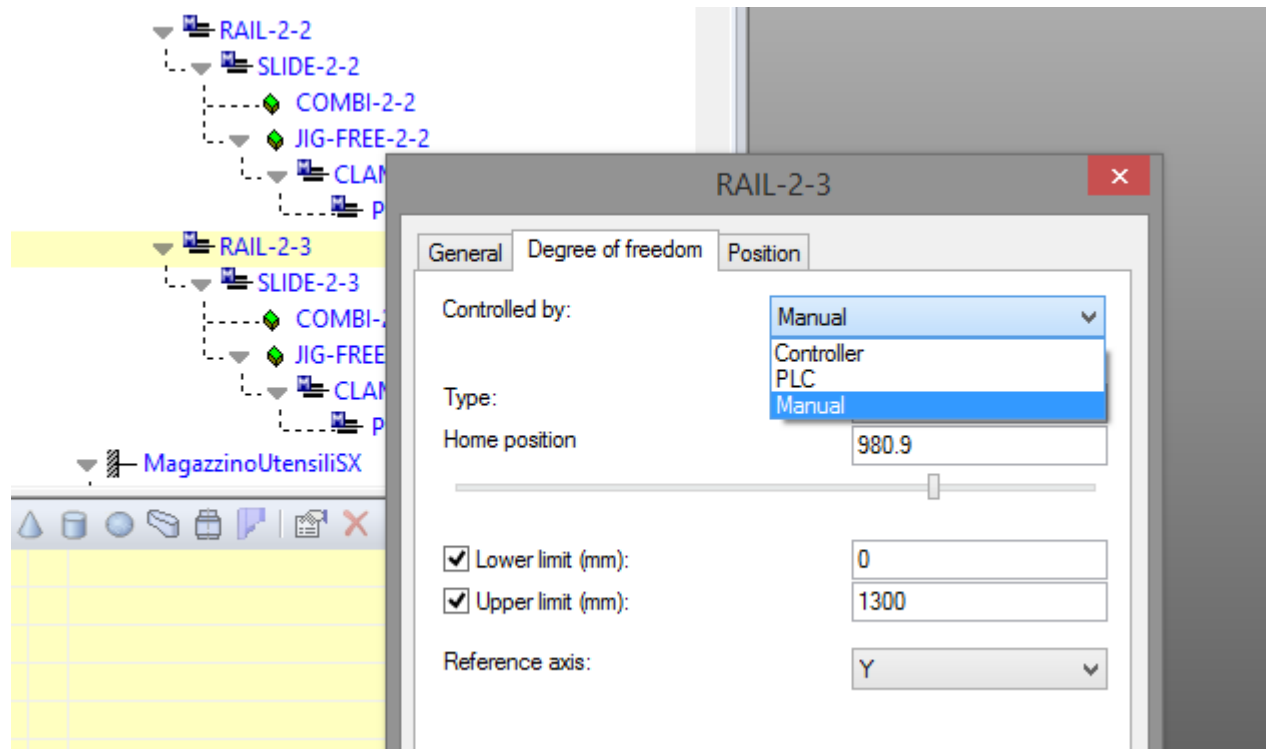


PLC axes can be used to simulate accessory movements like door opening without affecting the license requirements.

In G-code simulation, PLC axes can be programmed by normal G0/G1 commands or using the script command MOVETO. Using the script command MOVETO, any axis name is allowed (for example “DOOR”, “CLAMP1”, etc.)

PLC axes cannot be used as main CNC axes (geometric, table or head axes).

Manual Axes

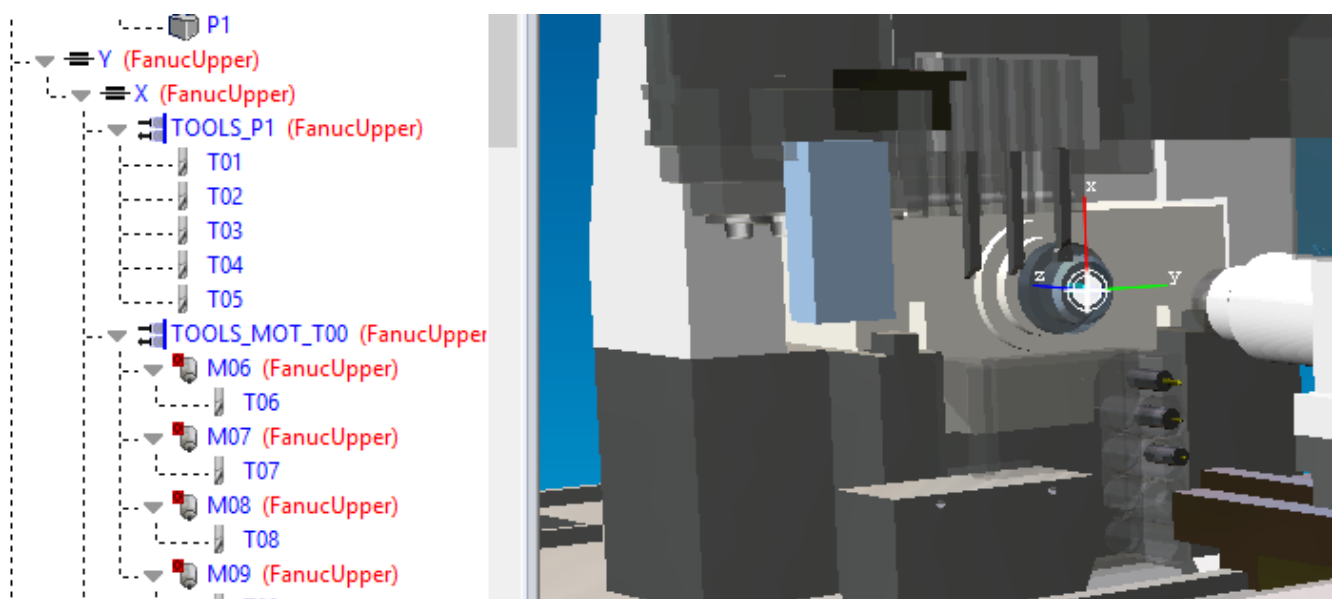


Manual axes can be used to simulate, for example, sliding fixtures requiring the operator intervention. They cannot be programmed but they can be moved interactively accessing the axis properties and moving the slider or moving its manipulator in the 3D view.

Manual axes are similar to fixture nodes. Any user can edit the 3D models attached to it and all manual axes are shown also in the machine setup view.

Fixed turrets

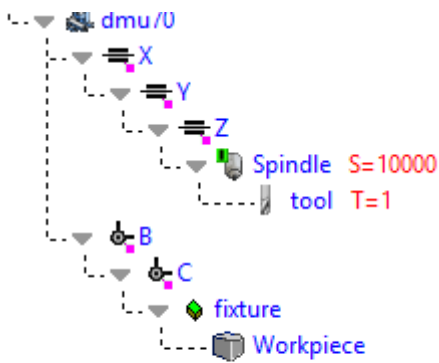
Fixed turrets are turrets without any degree of freedom. They are commonly used in Swiss CNC machines. The setup of a fixed turret can be done in the same way of rotary turrets.



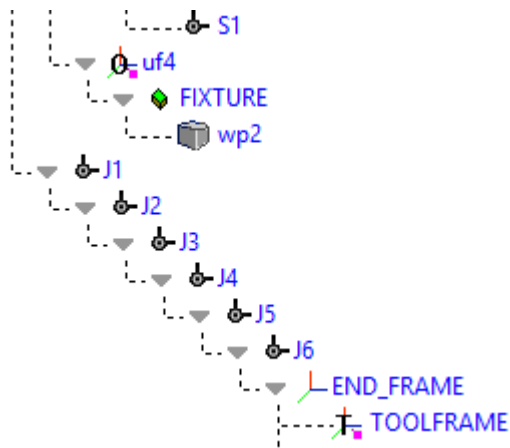
Info on the kinematics tree

The kinematics tree has been improved in order to show useful information during a simulation session.

For each active spindle the speed S is shown in red beside the node label. The current mounted tool code is shown as well for each not empty kinematics tool node.



On the CNC side, the controlled kinematics chain including geometric, head and table axes is highlighted with a purple markers on the bottom right corner of each node icon.



For robots, the current tool frame and the current object frame are highlighted with a purple markers on the bottom right corner of each node icon.

EurekaRobot

New supported robot output:

1. Universal Robots like UR5 e UR10



2. KUKA.CNC

The APT command TRANS is available either as translation only or as full transformation defined by translation values x,y,z and roll-pitch-yaw angles rz,ry,rx in degrees.

TRANS / x,y,z

TRANS / x,y,z, RPY, rz,ry,rx

The APT command SEQUENCE declares the beginning or the end of a sequence of operations. The sequence will be pointed out as tip in the simulation history view.

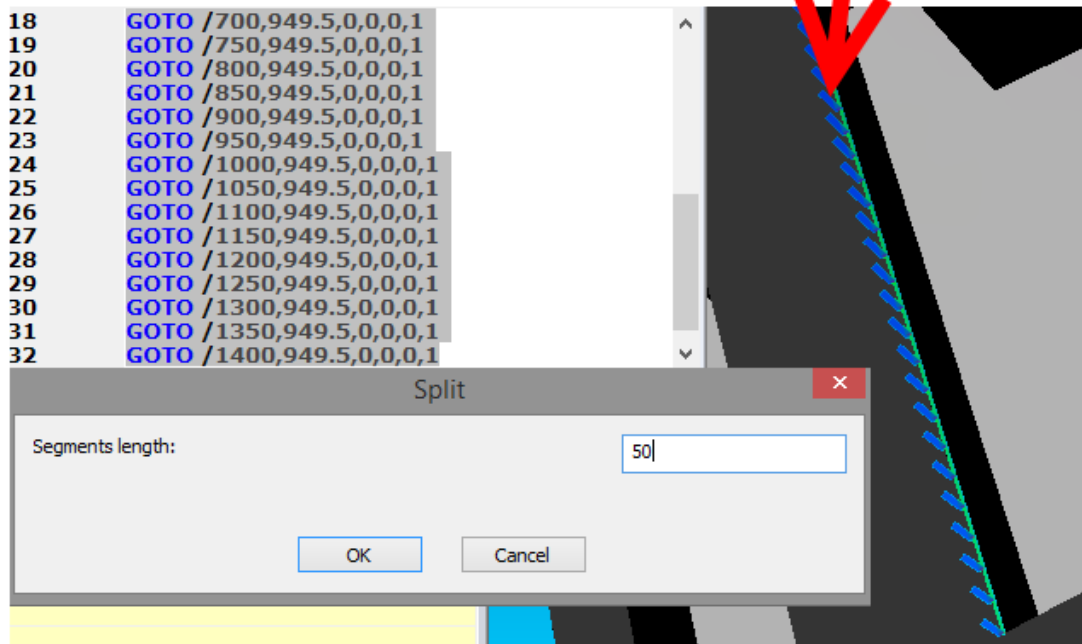
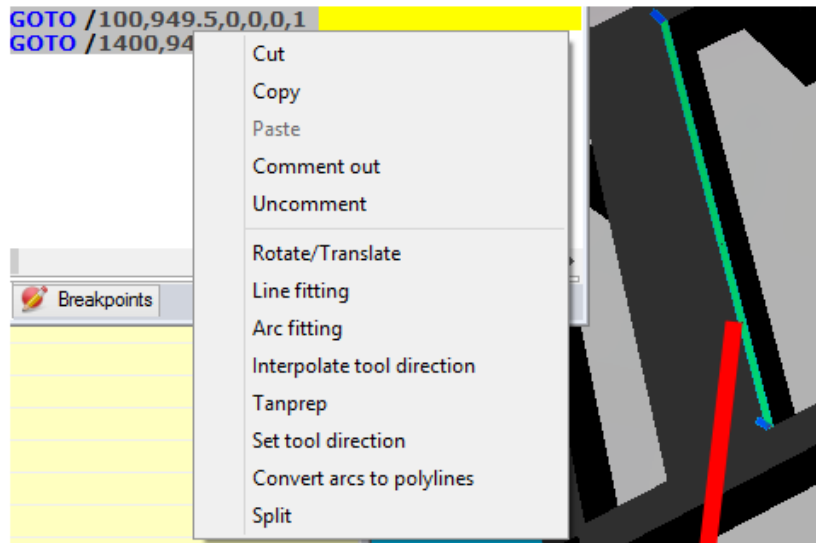
The SEQUENCE command allows the postprocessor to output the sequence in the same file or to create a separate file and have a call to it in the main file.

SEQUENCE / BEGIN, "Mysequence 1"

...

SEQUENCE / END

A new "Split" command has been added to the APT context menu. The split command affects the selected toolpath dividing a movement longer than a given threshold in smaller elements.

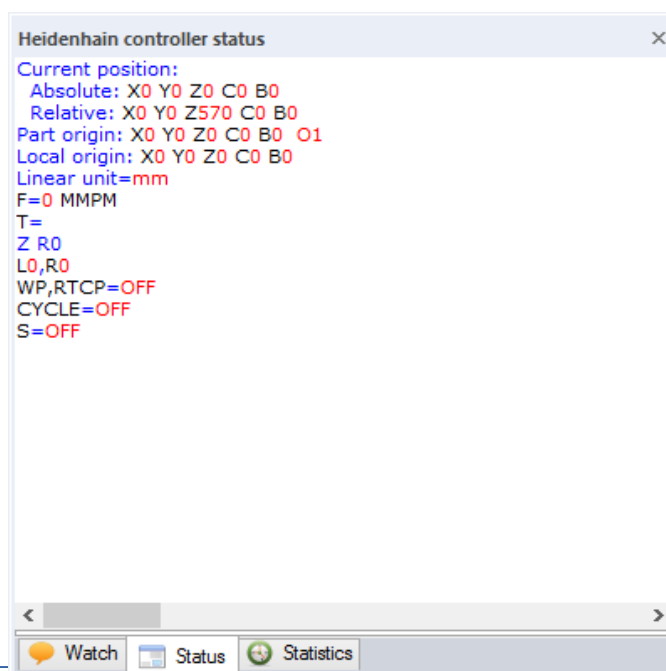


EurekaGCode

Philips controller



The controller status window has been re-implemented. In Eureka7 the controller status is a dockable pane as the program bar or others and the user can navigate from the Watch view (which allows monitoring the controller variables values) to the controller status and the statistics (like the cycle times).



Tool database

New parametric tools



Multi-criteria tool filter

Code	Type	LZ	LX	D	Comment	Description	Unit	Color
13	Mill	150	0	6			mm	Green
1	Mill	187	0	25			mm	Cyan

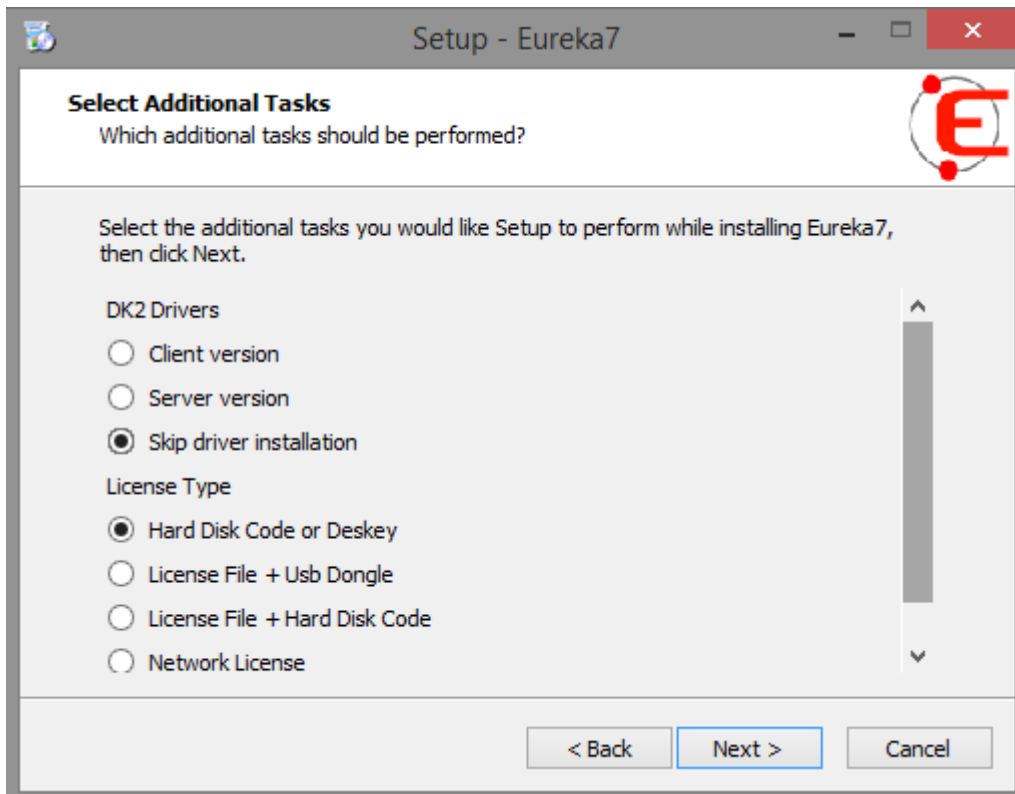
Inserts for turning tools defined as 3D models.

The tool corrector can be defined in absolute or relative mode. In the first case the values refer to the mounting point. In the second case, they refer to the tool geometry only.

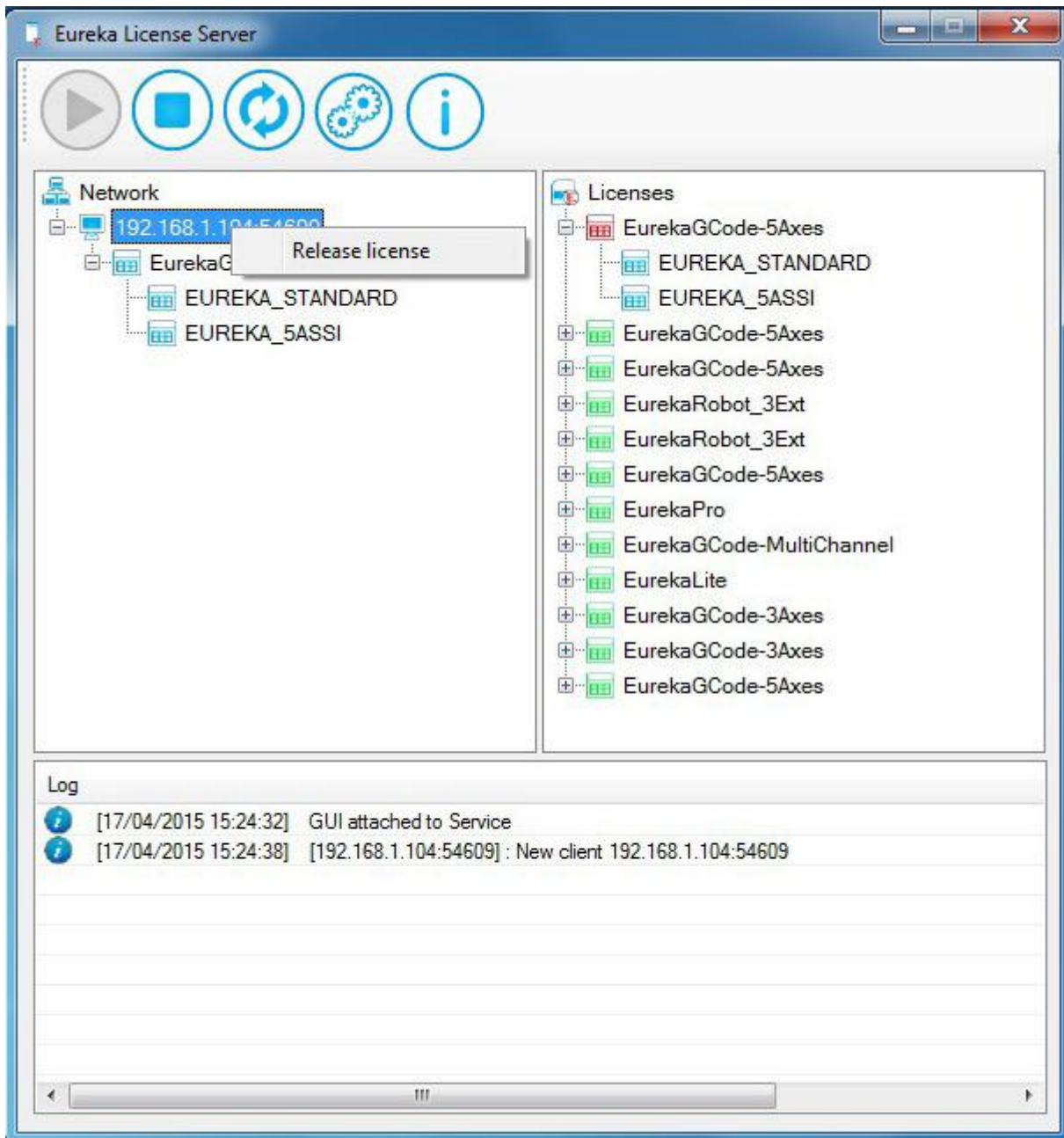
N. 1	
N.	1
DLX(3)	0
DLY(2)	0
DLZ(1)	0
R	0
ABS	False

New licensing system

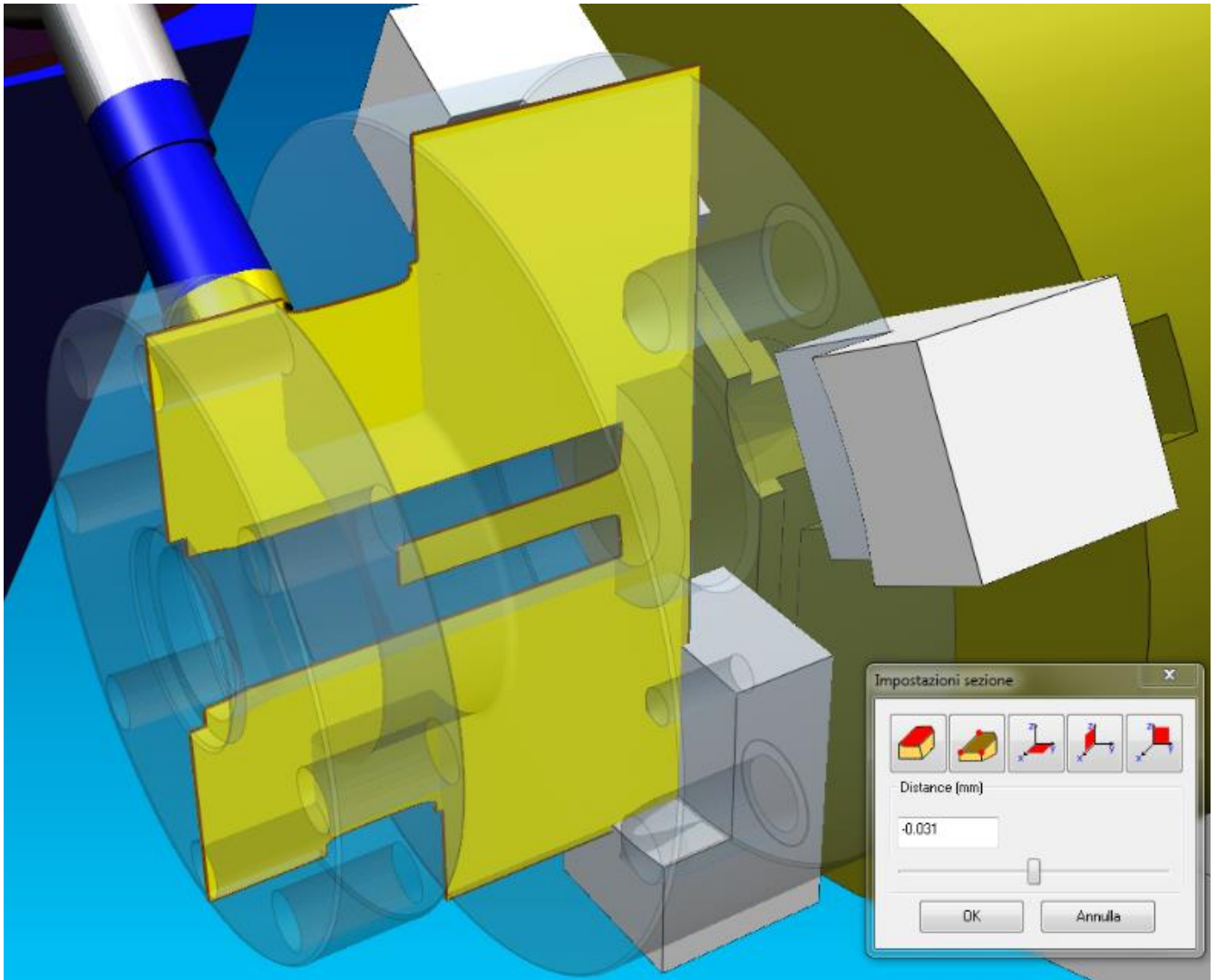
A new licensing system has been implemented to get a more flexible license structure and make it easier to install and update. Licenses based on DK2 dongles are still supported. The new Eureka setup lets the user select the target license system.



License type	Description	Requirements
Hard Disk Code	For dealers only. Temporary license.	
Deskey	License resident in the dongle memory.	XP-SP3 Deskey drivers installed
License File + Usb Dongle	License stored in a separated file. The file is combined with a driverless Sentinel USB dongle.	XP-SP3
License File + Hard Disk Code	For dealers only. Temporary license.	
Network License	The client PC gets the license from a license server PC on the network. A license service is installed on the server PC. The license is stored in a separated file. The file is combined with a driverless Sentinel USB dongle. On virtual machines, the file is combined with some PC information (hard-disk, ip..) and a connection with a Roberis server is required.	On client PC: XP-SP3 On server PC: <ul style="list-style-type: none"> Windows server 2008 R2 or Windows 7 .NET Framework 4.5 On virtual machines, a connection with a Roberis server is required.



Dynamic cross sections



Cross sections defined on stock models are updated in real-time. Thanks to the analytic technology the section profile reflects exactly the machined one without approximations. This allows, for example, to perform live measures on the stock in turning operations.