Tebis launches Version 4.1 Release 11 with a focus on performance, robotics, and process reliability

With Tebis 4.1 Release 11, Tebis continues to consistently focus on enhancing performance, process reliability, and user-friendliness. This update addresses key requirements in industrial manufacturing: handling large volumes of data, increasing automation, and high process reliability.

The key features of this release include ultra-fast tool search, advanced checks for robotic machining, and—for the first time—automatic collision avoidance for laser processes.

Your benefits:

- Shorter search times and loading times
- A smooth workflow, even in large projects
- Improved transparency and data control

Early conflict detection during calculation

Robot-specific conflicts, such as singularities, limit switch positions, or difficult positioning areas, are now detected during toolpath calculation. All conflicts are represented visually in the model and can be corrected immediately in an interactive interface.

Advanced simulation: checks for all movements

The simulation capabilities have also been expanded: In addition to the actual toolpaths, thorough checks are now performed for all connecting movements and positioning movements, as well as tool changes. This ensures that the virtual manufacturing environment replicates the real-world process even more accurately.

Flexible positioning of all axes

Flexible options are now available for positioning and combining tool axes, robot positions, and additional axes. New algorithms create smoother movements and ensure optimal results, even for complex machining operations, to allow even faster, safer generation of collision-free NC programs for robots.

Your benefits:

- Even greater safety through early conflict detection and thorough checks of all movements
- Flexible positioning of robot axes and additional axes
- Rapid, transparent, interactive resolution of conflicts

Safe laser machining—automatic collision avoidance available

With Release 11, automatic collision avoidance is now available for laser processes such as laser cutting and laser cladding. This feature also takes full account of the machine head. Critical positions are reliably detected and safely avoided, significantly reducing the need for manual adjustments.

If no safe alternative path is possible, the system marks the positions in question right in the CAD model to enable precise evaluation and safe, flexible re-machining.

Your benefits:

- Maximum safety in laser machining
- Much less manual effort
- A better overview of critical geometry sections
- Flexible combination of automatic and manual corrections

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