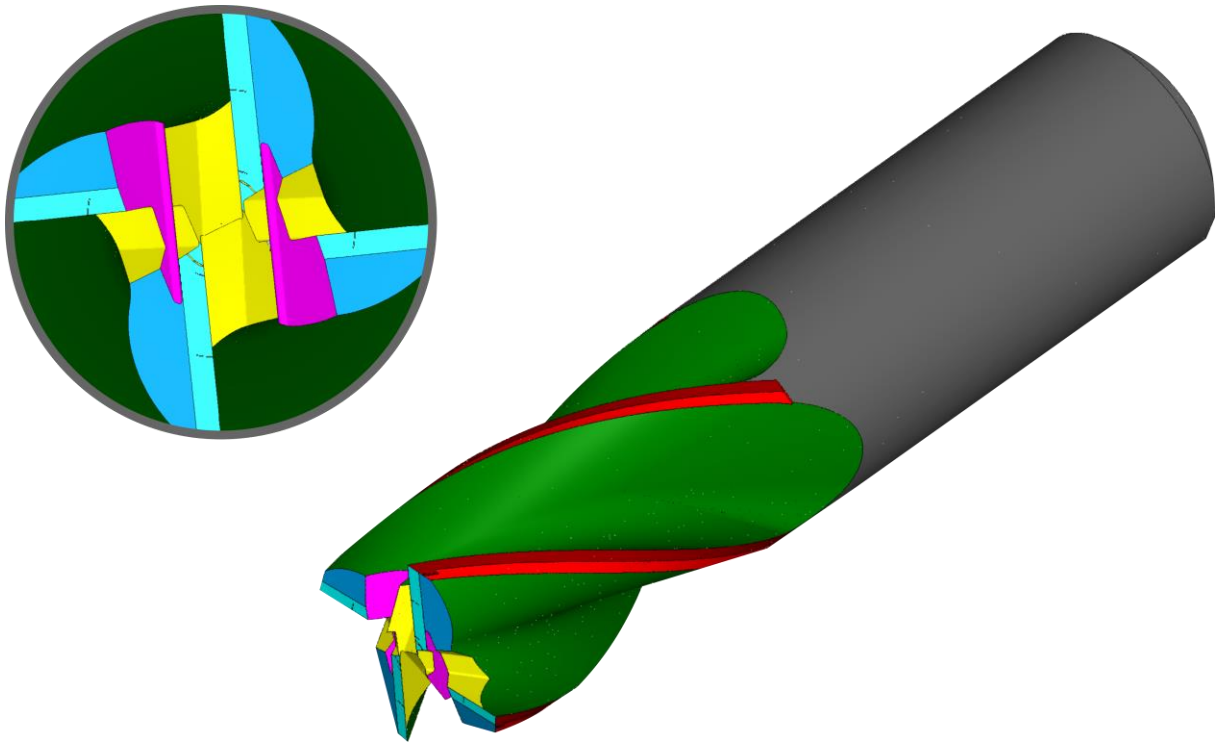
MTS AG
Mathematisch-Technische-Software

tool-kit PROFESSIONAL by MTS AG

Software-Modul

Spezifikation „Optionen“

Stand: 10.01.20



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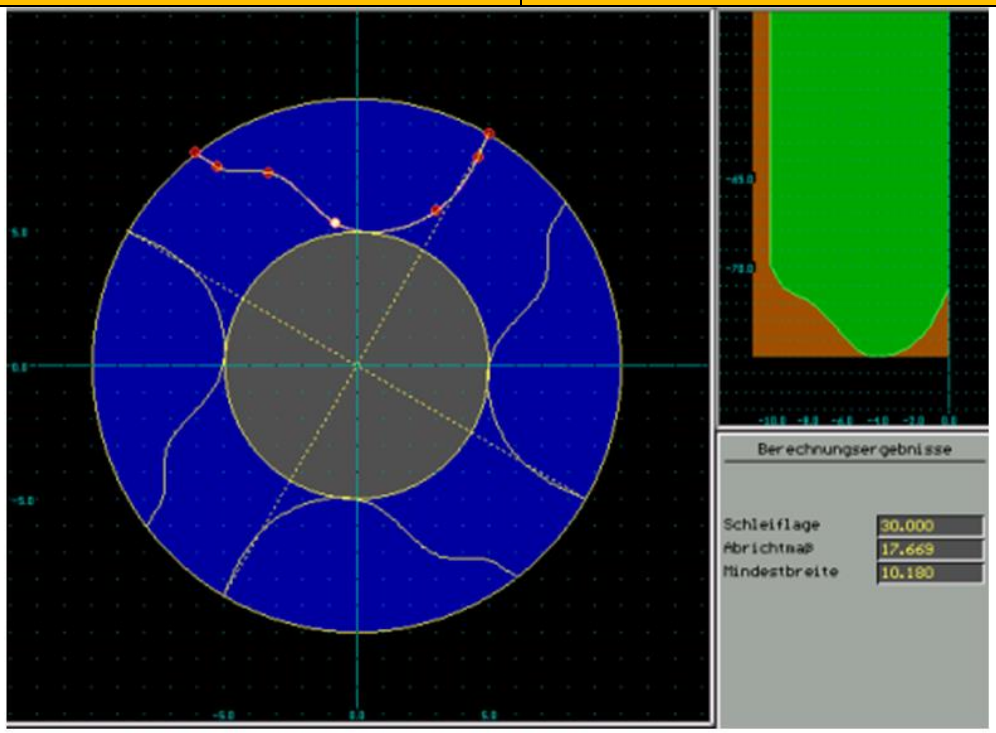
Options	
17.1 Construction of Flute Profile / Wheel Profile	**Options for FMENU / BMENU**
	
17.1 Basic Modul Construction of Flute Profile / Wheel Profile	
• **Construction of Flute Profile:** • Construction by integr. CAD • Calculation of wheel-profile • Calculation of grinding track • Intersection simulation • Output of wheel discription	

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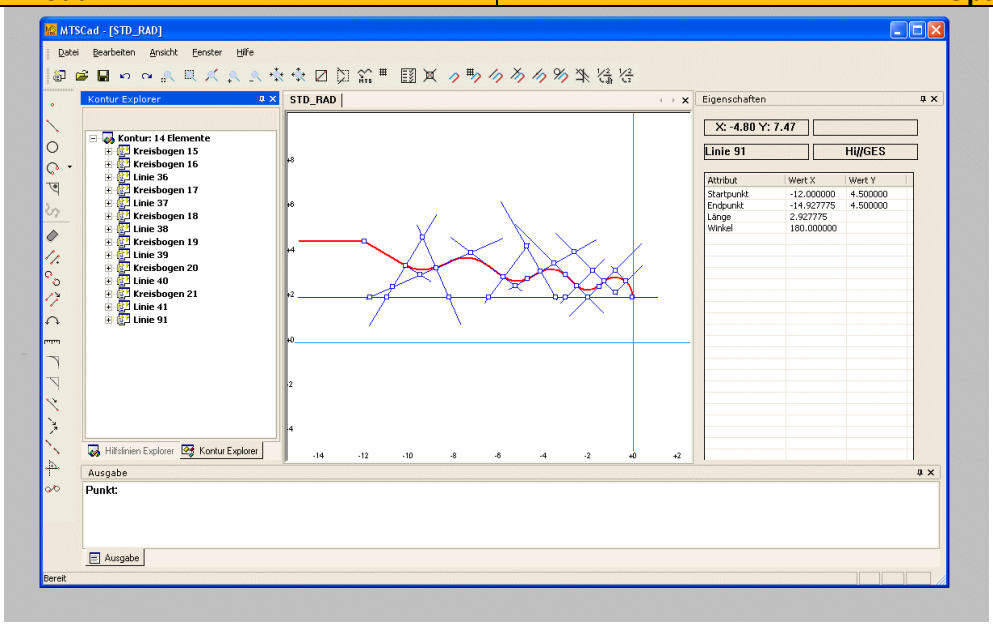
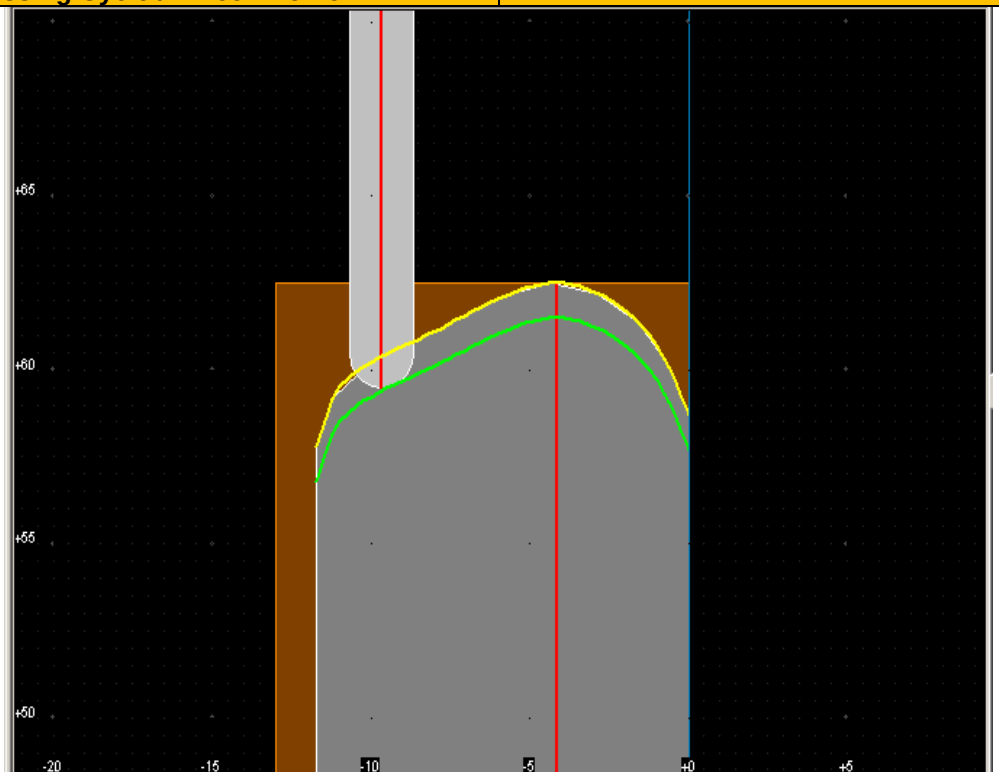
18.1 CAD Modul	Option CAD



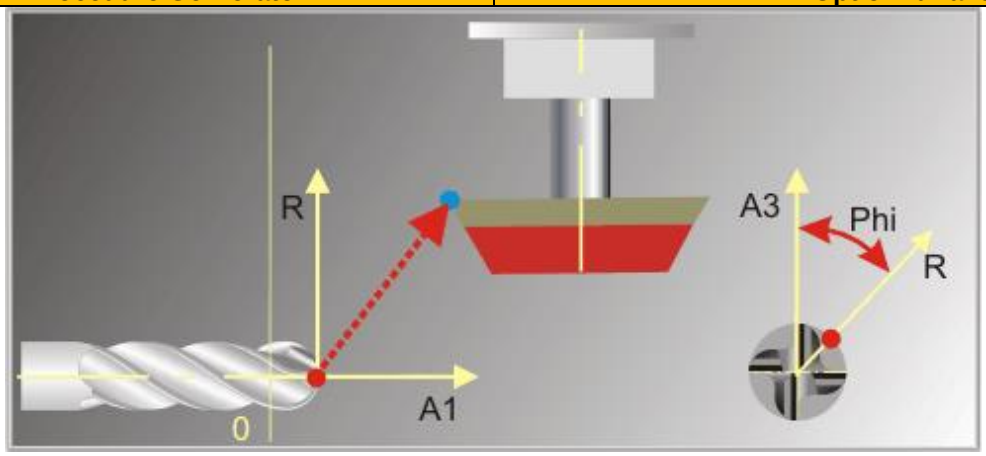
18.1 CAD Modul	
• CAD-Program specilized to the usage of tool-construction including interface to the grinding-modules.	

19.1 Dressing Cycle / Wheel Profile	Option



19.1 Dressing Cycle / Wheel Profile	
• **Wheel dressing:** • Input of dressing parameter within machine world • Calculation of dressing cycle driven by given wheel profile (Pos. 19)	

20.1 Open Procedure Genrerator	Option für alle Module



20.1 Open Procedure Genrerator Construction and generating of selfmade additional operations. Integration at any operation-position.	
• **Generating of open procedures**: • Graphical construction of open procedures • Up to 10 different additional operations per modul • Import/Export by global database • Inserting at any position within machining order • Seperate wheel and technology to each open procedure • Movement- and intersection-simulations	

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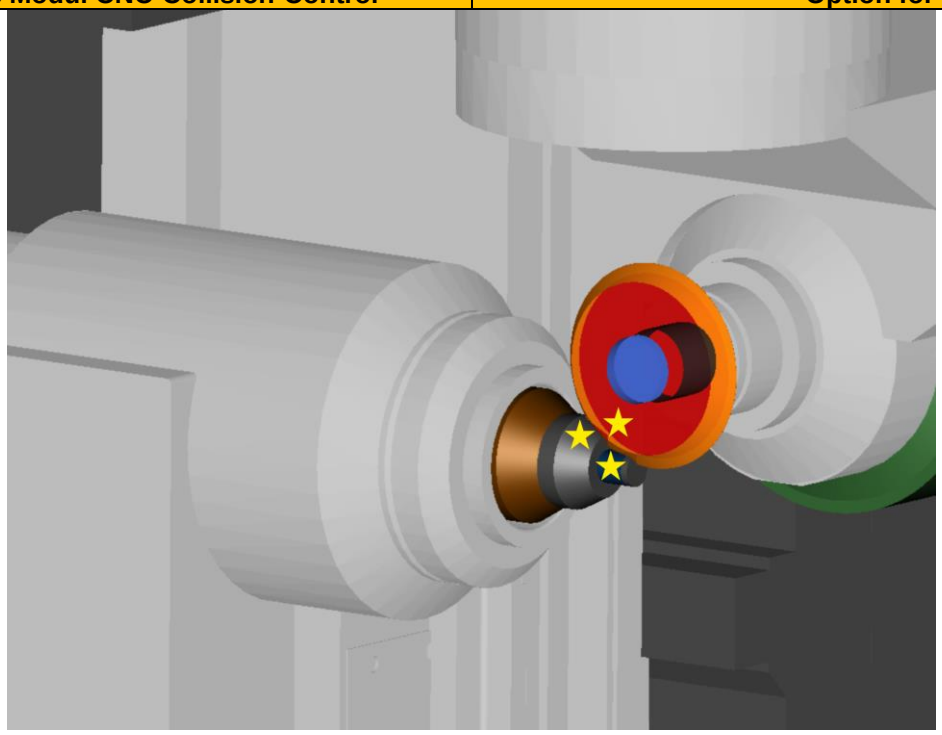
21.1 Basic Modul CNC-Collision-Control	Option for all Moduls



21.1 Basic Modul CNC-Collision-Control	
• **Functions:** NC_start without collision-control NC_start with collision-control and auto stop at first collision. NC_start with collision-control and collision protocoll of all situations NC_simulation without collision display NC_simulation with collision display • **Extended CNC-Generator:** Collision-control: Yes / No Mode-selection: „Stop at first collision“ / “All collisions“ • **Mode „Stop at first collision“:** The modul stops the calculation of the CNC-code by recognition of the 1st collision and shows these graphically on the scope • **Mode „All collisions“:** First the CNC code will be calculated completely. Subsequently we will have a listing of all collision situations. In the following these can be individually plotted and examined.	• **Administration of the collision objects (Setup):** 4 object lists: Basical objects, tool-objects, clamping- and spindle-objects. The list administration takes place in each case by inserting, copying, renaming or deleting. The selection of the objects which can be considered concerning the collision takes place via activating in the object lists. • **Collision calculation:** Examinating the penetration of all activated objects, as well as the active grinding wheel outside of the workpiece. Generating the collision protocol.

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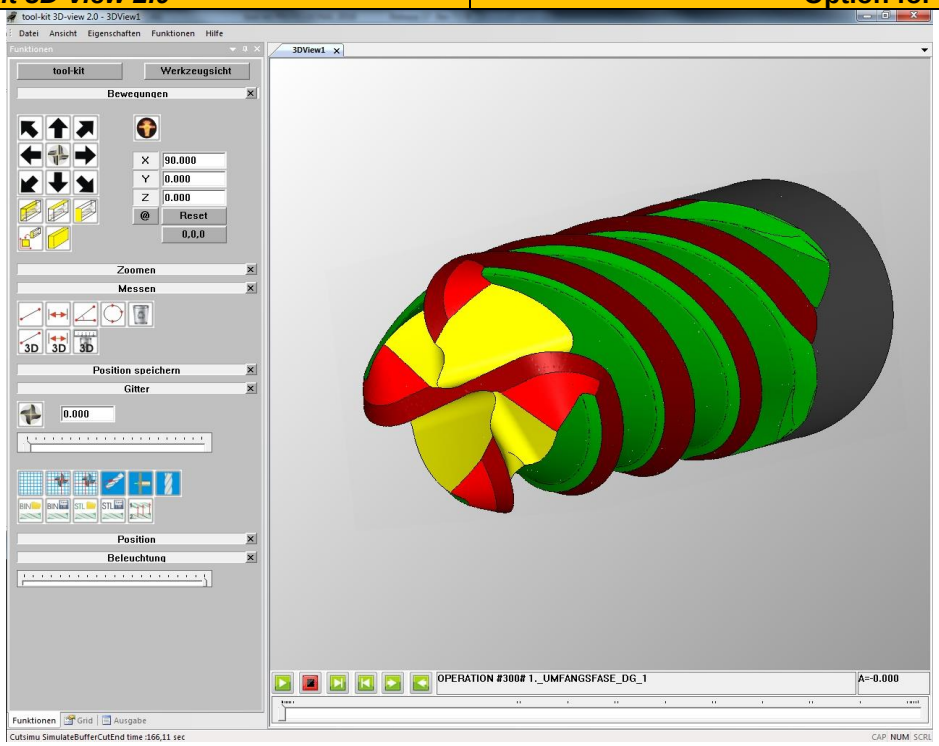
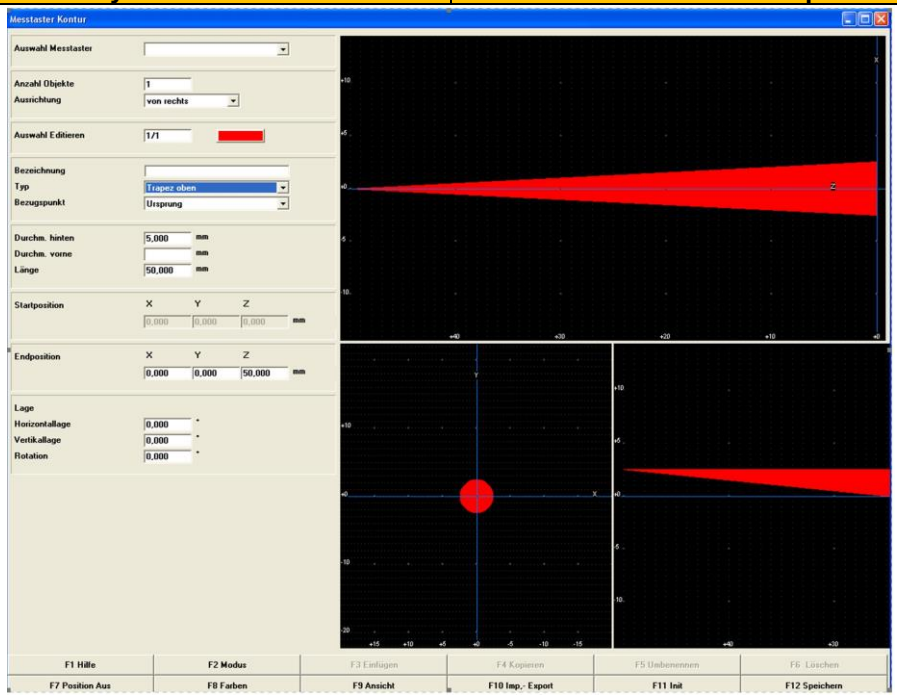
22.1 *tool-kit 3D-view 2.0*	**Option for all Moduls**



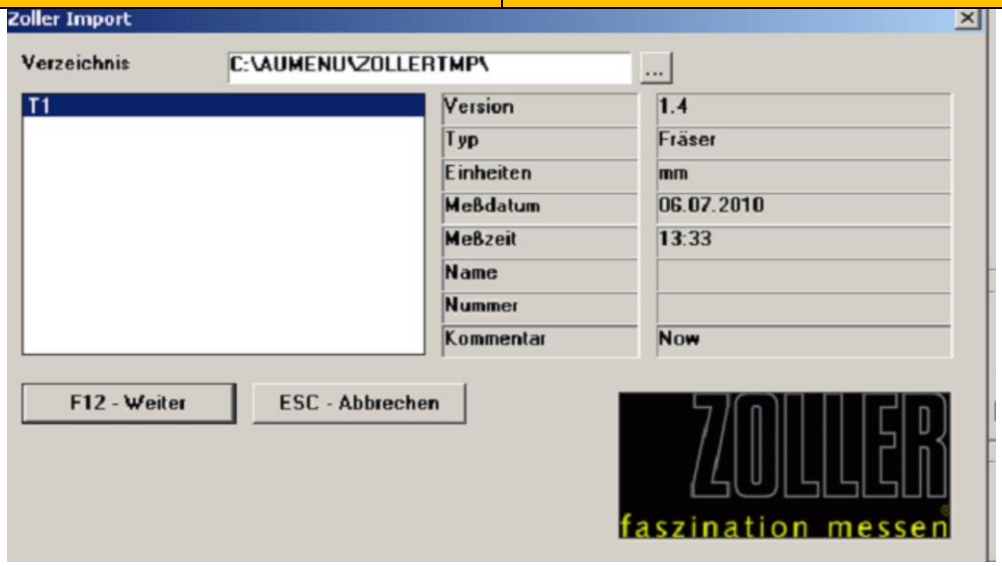
22.1 Basic Modul *tool-kit 3D-view 2.0*	
• **Tool-simulation in 3D** Integrated call of 3D-simulation from all moduls including 3D simulation view Positioning of the workpiece in three Rotary axes (3D view). Save 3D views. 2D grid and 2D measurement (distance, angle, radius). 3D measurement (points, distance). Section plane display Snap2Point feature. Refining function for cutouts. Transparency view Adding operations (not everything new count). Loading STL blanks. Save as STL file. Display of STEP files	

23.1 Measurement-Cycles	Option for all Moduls



23.1 Basic Modul Measurement-Cycles	
• **Measurement-Cycles for 3D-probing-system** Length Tooth-positioning Helix lead (zylindrical, conical) Diameter (zylindrical, conical) Teeth-indexing	

24.1 MTS-interface to an external Measurement-Machine	



24.1 MTS-interface to an external Measurement-Machine	
• Interface within tool-kit PROFESSIONAL to a measurement-maschine (Exp. Zoller genius 3). • Exchange of geometry data between MTS software and a measuring machine. • Measurement of workpiece data and wheel geometry • Reading back the measured datas • Decision for further processing.	• Measurement-data will be read and analysed by the error-handling-procedure. • The generated correction-data will be used in ordert to come to correct must values at next grinding step. • Correction Options: • **Correction on the wheel data:** Reasonable corrections f.e. at diameter, rake-angle and wheel-distance. • **Using the operation-specifical correction table:** Corrections at machine-data or wheel-data. • **Correction of tool parameter:** Correction in inverse direction to the actual value and setpoint.