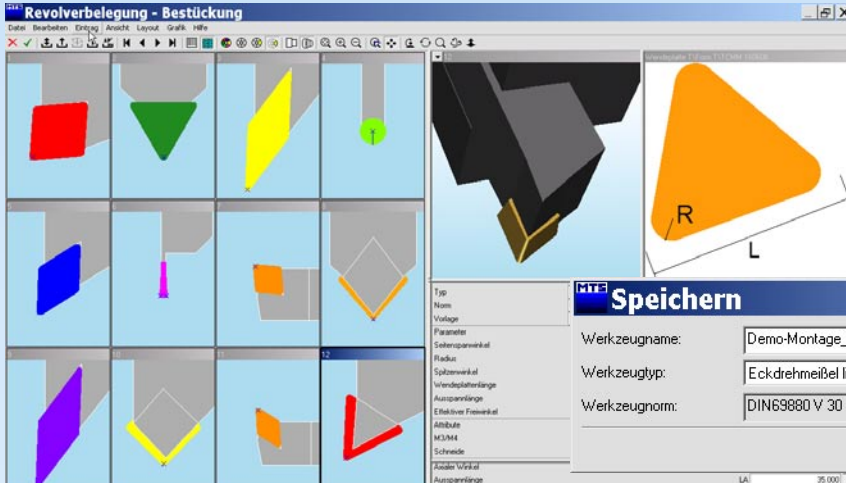


TopCAT

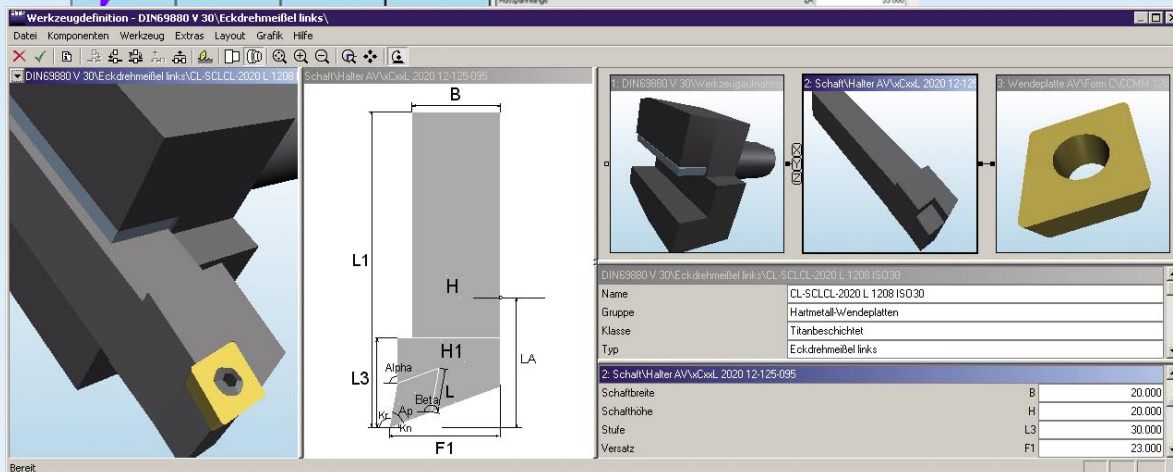
Computer Aided Tooling System

The universal MTS 3D tool management system **TopCAT** designed for turning and milling tools, tool components, clamping devices and machine tool components is now integrated into the MTS product line **TopCAM**, **TopMill** and **TopTurn**. For all standard tools templates are available.



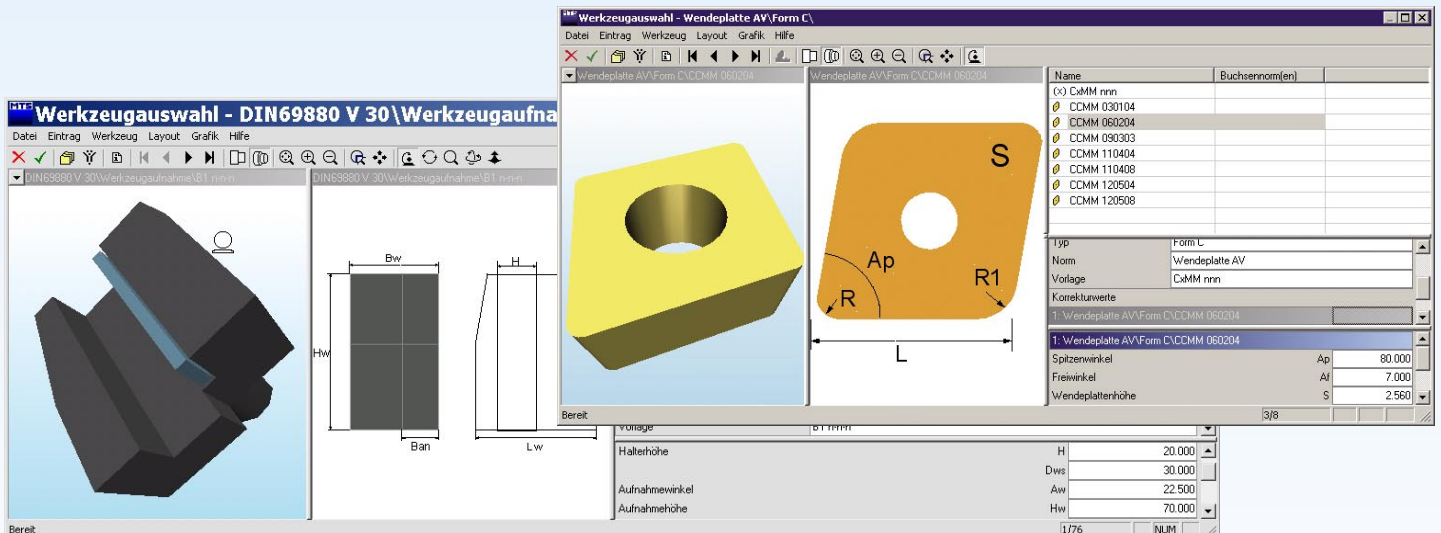
Turning Tool Assembly

The assembly of a tool consisting of mounting, tool holder and cutting plates and the determination of tool correction values corresponds to the tool assembly operations in tool presetting



With **TopCAT** it is also possible to assemble tools and special tools with multiple cutting edges as well as the adaptation of parametrized tools components to the given data. The import of CAD defined tool components is also possible.

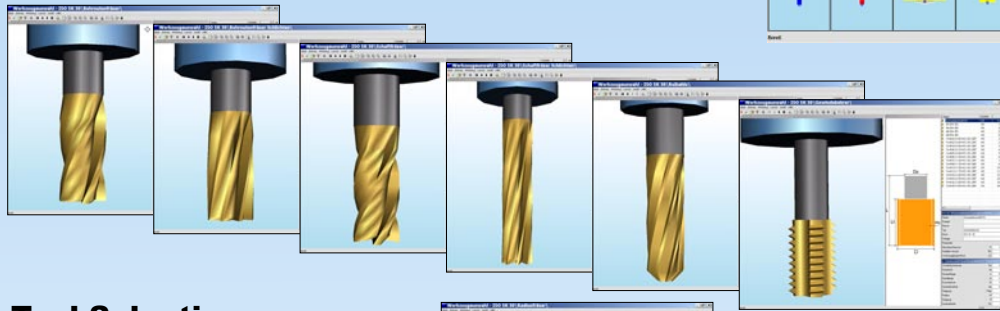
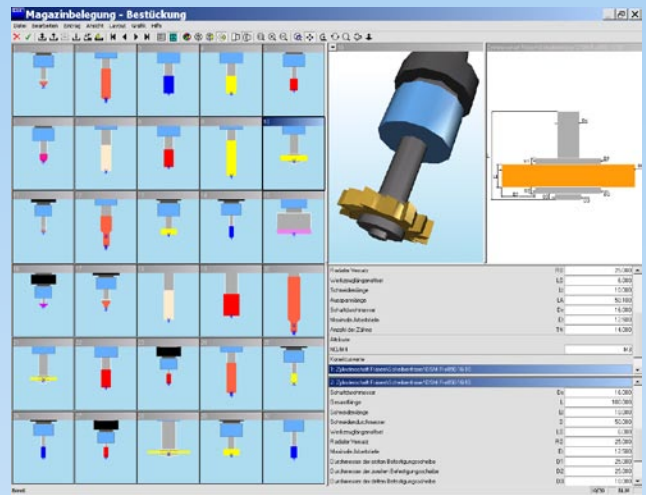
Starting with the tool norm of a selected CNC machine (e.g. VDI/DIN 69880, SK40, Capto 030, ...) the tool is assembled by using of internal tool component interfaces (e.g. holder section, cutting plate, ...) which allows the automatic preselection of components in order to guarantee an error free tool assembly.



Milling Tool Assembly

Milling tools are assembled like turning tools consisting of mounting, tool holder and cutting edges.

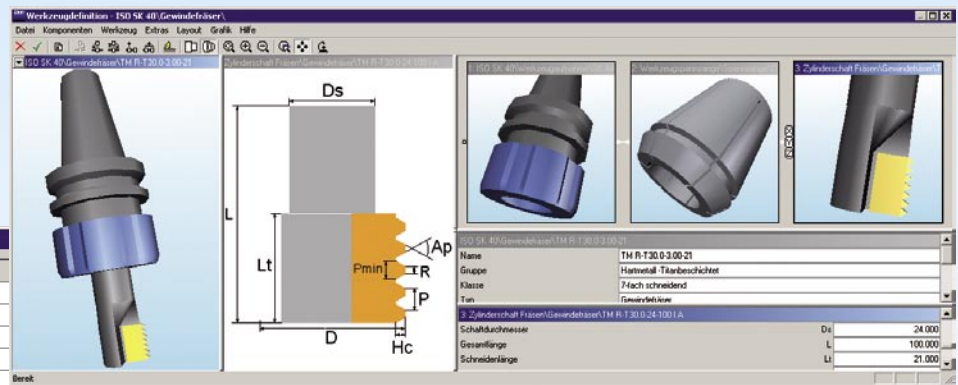
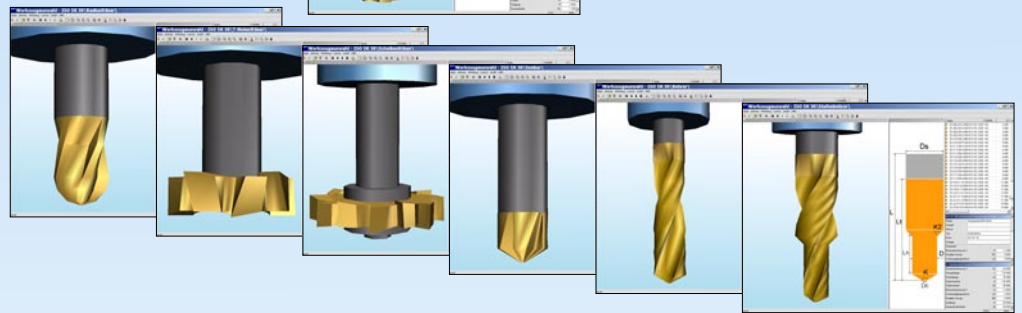
The cutting edges of all milling tool types are defined by a set of tool parameters (cutting edge geometry, number of tool edges, ...). With the parameter setting a realistic 3D-tool is built up, which allows the easy recognition and selection of a specific tool or tool type. During simulation the rotational geometric shape of all cutting edges is used.



Tool Selection

Tools may be selected in the **Top-CAT** data base by tool type and name or specified tool parameters or parameter intervalls.

In the given example, the data base selects only two tools because the demand of an extremely high clearance angle of 8° to 18° is satisfied only by tools with bent tool holder and in two axes twisted tool holder head, which results here in an effective clearance angle of 12.713° towards the Y axis.



Typ	Bezeichner	Name
Global	Name	
Attribut	M3/M4	
Attribut	Schneide	
Korrekturwert	Q	Quadrant
Parameter	Kr	Seitenpanwinkel
Parameter	R	Radius
Parameter	Ap	Spitzenwinkel
Parameter	L	Wendepfalter
Parameter	LA	Ausspannlänge
Parameter	Ae	Effektiver Fre
Global	Buchsennorm(en)	

