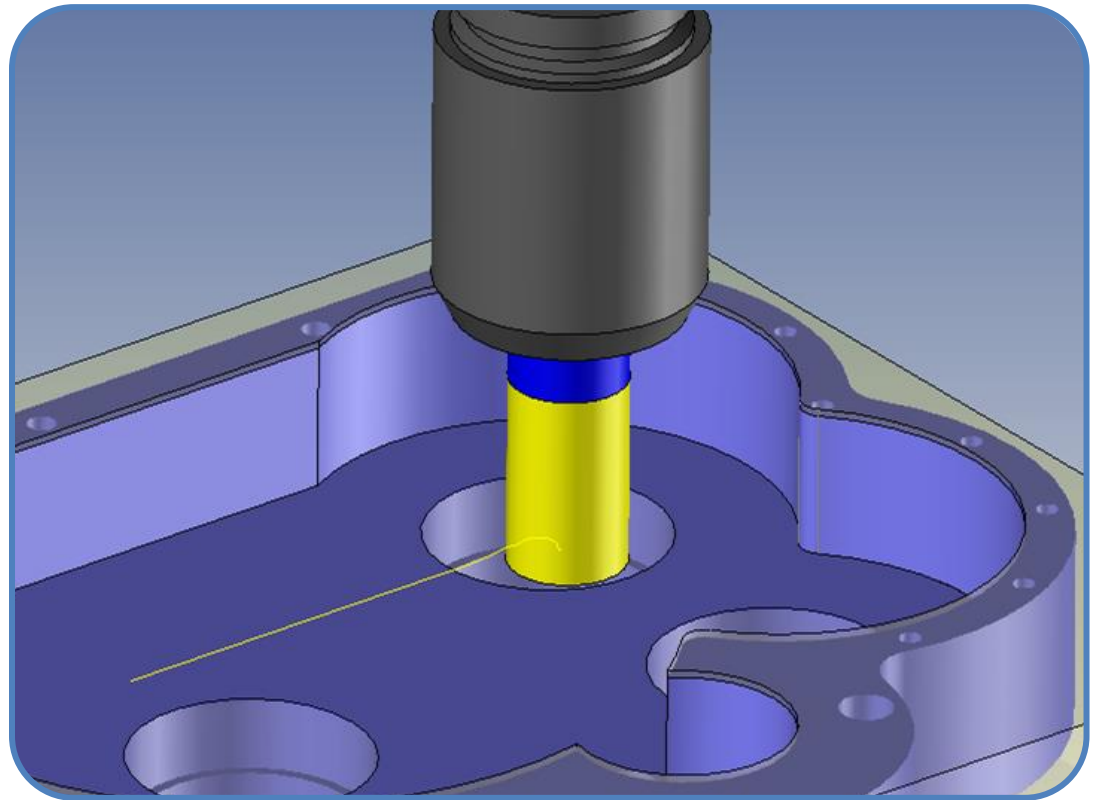


WT-TopSolidCam Interface



Manual

***WinTool* Interface for TopSolid'Cam 7.8/7.9**

The WT-TopSolidCam-Interface enables the user to select and transfer tool assemblies from the *WinTool* database to the TopSolid'Cam environment.

After production of a NC program, a complete list of the tools used in the NC-Program will be stored back to the *WinTool* database for further processing in the company.

Requirements

- *WinTool* 2011 Professional or newer
- TopSolid'Cam 7.8 with update 7.8.303.100 or newer or 7.9

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Summary

Job

The WT-TopSolidCam-Interface enables the user to export all assemblies from the *WinTool* database into the TopSolid environment. Full graphic representation with tool holders and extensions are supported.

After production of a NC program, a complete list of the tools used in the NC-Program will be stored back to the *WinTool* database for further processing in the company.

Requirements

This Interface requires *WinTool* Professional 2011 or newer. TopSolid'Cam 7.8 and 7.9 are supported. For TopSolid'Cam 7.8 the update 7.8.303.100 or newer is required.

Licensing

You need a license agreement with *WinTool* AG, Switzerland.

Limitations

No turning tools can be transferred with this interface version.

Copyright

This documentation as well as the Software itself is under copyright of

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Installation

Directory Structure

All user data is centrally placed the [\[Public Documents\]](#) WT-TopSolidCam-Interface folder:

User data	Location
Default location of UserModels folder	[Public Documents] WT-TopSolidCam-Interface\UserModels
Default location of Exchange folder	[Public Documents] WT-TopSolidCam-Interface\Exchange
Configuration file WT-TopSolidCam-Interface.cfg	[Public Documents] WT-TopSolidCam-Interface

Note: [\[Public Documents\]](#) on Windows XP is located in [C:\Documents and Settings\All Users\Documents](#) on Windows Vista and newer in [C:\Users\Public\Documents\](#)

New Installation

Log on with administrator rights to install the software on a PC. Install *WinTool* Professional first before you install the WT-TopSolidCam-Interface.

Download the latest WT-TopSolidCam-Interface software release from www.WinTool.com and start Set-up.exe.

Follow the instructions in chapter [Configure WT-TopSolidCam-Interface](#) and [Configure TopSolid'Cam](#)

Update

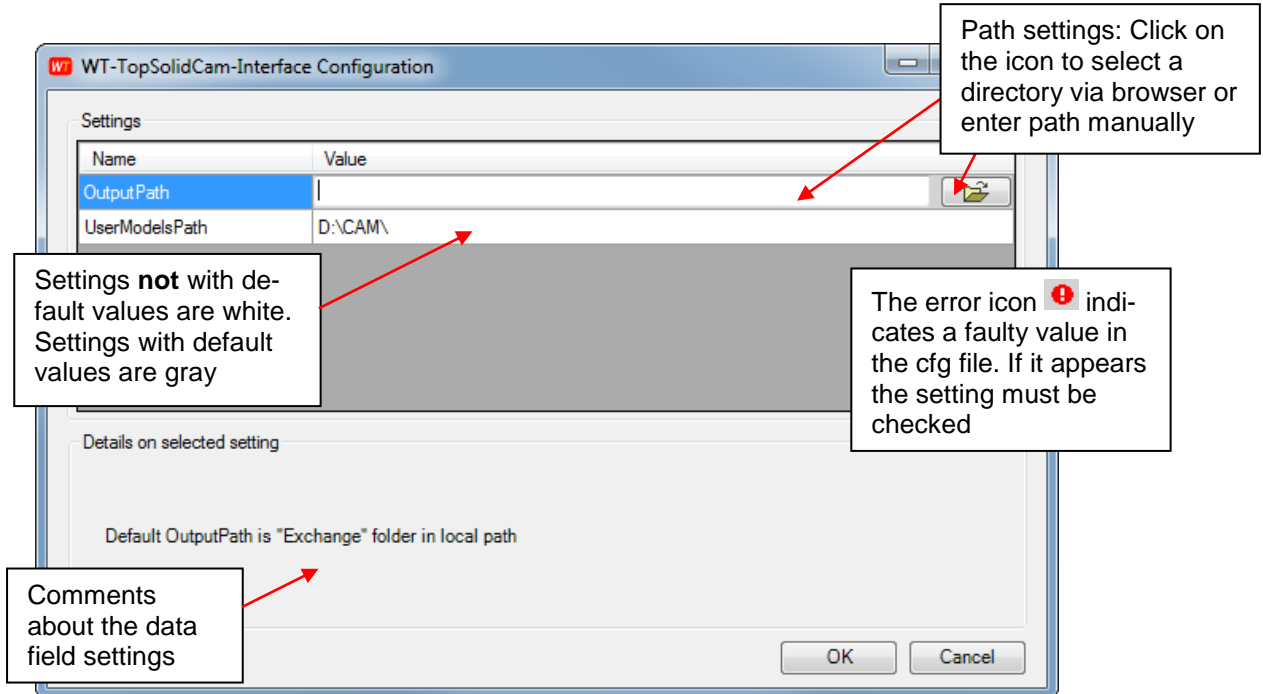
Download the latest WT-TopSolidCam-Interface software release from www.WinTool.com and start Set-up.exe.

Follow the instructions in chapter [Configure TopSolid'Cam](#)

Open the interface configuration via "Start" > "All Programs" > "WinTool" > "WT-TopSolidCam-Interface" > "WT-TopSolidCam-Interface Configuration" and check the settings.

Configure WT-TopSolidCam-Interface

The configuration window allows you to check and change the settings of the WT-TopSolidCam-Interface. Open the configuration window via "Start" > "All Programs" > "WinTool" > "WT-TopSolidCam-Interface ..." > "WT-TopSolidCam Configuration"



<OK> stores all settings. <Cancel> exits the configuration window without saving.

The configuration window reads and stores settings in the file "WT-TopSolidCam-Interface.cfg" which is located in the directory [Public Documents]\WT-TopSolidCam-Interface. This file can also be edited with a text editor.

Output Path

The Output Path defines the directory for the data exchanges.

This directory must not be shared by multiple users because the data transferred via this directory is NC project specific and temporary only.

The default settings are:

OutputPath = [Public Documents]\WT-TopSolidCam-Interface\Exchange\

UserModels Path

The UserModels directory manages the transfer of tool contour graphics (DXF). *WinTool* links and manages these models and all NC programmers must access and share this data.

If you have multiple NC programmers you must create a UserModels folder on the server. It must be included in the backup schedule.

The default settings are:

UserModelsPath = [Public Documents]\WT-TopSolidCam-Interface\UserModels\

Configure TopSolid'Cam

To access the WT-TopSolidCam import and export quickly, add the buttons to TopSolid'Cam:

- Open a machining project in TopSolid'Cam
- Select "Tools" > "Customize"

Import Button

1. In "Add a file to execute", click on "..."

TopSolid 7.8

- Go to the WT-TopSolidCam-Interface installation directory and open the directory "7.8"
- Select "WT-TopSolidCAM-GetTools.exe"

TopSolid 7.9

- Go to the WT-TopSolidCam-Interface installation directory and open the directory "7.9"
- Select "WT-TopSolidCAM-GetTools.exe"

2. Drag and Drop the "WT-GET" icon into a toolbar "Equipment"

Export Button

1. In "Add a file to execute", click on "..."

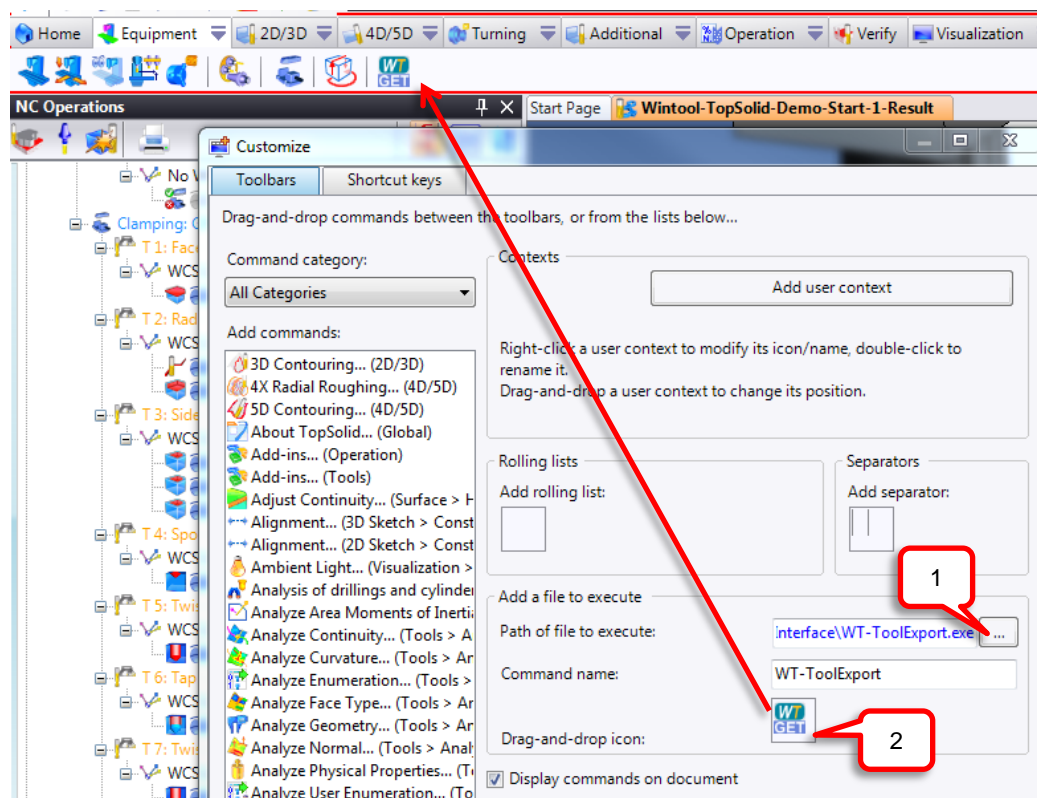
TopSolid 7.8

- Go to the WT-TopSolidCam-Interface installation directory and open the directory "7.8"
- Select "WT-TopSolidCAM-PutToolList.exe"

TopSolid 7.9

- Go to the WT-TopSolidCam-Interface installation directory and open the directory "7.9"
- Select "WT-TopSolidCAM-PutToolList.exe"

2. Drag and Drop the "WT-PUT" icon into the toolbar "Equipment"

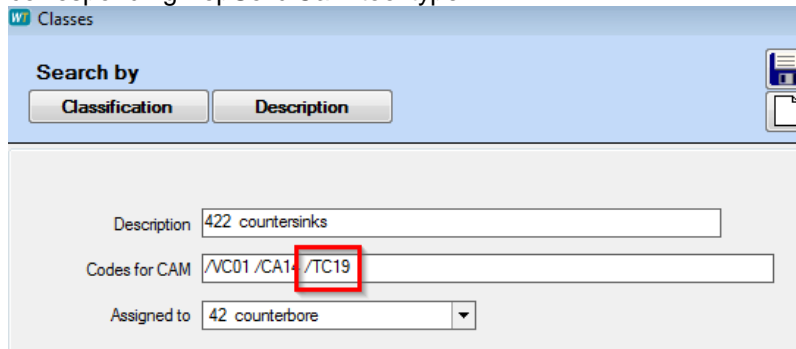


Supported TopSolid'Cam Tool Types

Each tool classification in *WinTool* must be assigned to the corresponding TopSolid'Cam tool type. This is done automatically when you import tool assemblies.

You can modify the assignment manually:

In *WinTool* select Settings > Class, then select a classification. In the data field "Note" you can assign the corresponding TopSolid'Cam tool type.



Example: For the classification "422 countersinks" assign the tool type **/TC19**.

TopSolid'Cam Tooltype English	WinTool Classification
Spotting Drill	/TC01
Center Drill	/TC02
Twist Drill	/TC03
Face Mill	/TC06
Side Mill	/TC07
Slot Mill	/TC08
T Slot Mill	/TC09
Radiused Mill	/TC10
BallNose Mill	/TC11
Lollipop Mill	/TC12
Conic Nose Mill	/TC13
Conic Nose Ball Mill	/TC14
Spot Face Mill	/TC15
Counterboring Mill	/TC17
Corner Rounding Mill	/TC18
Chamfer Mill	/TC19
Reverse Chamfer Mill	/TC20
Double Chamfer Mill	/TC21
Disc Mill	/TC22
Radiused Staggered Teeth Mill	/TC23
Constant Reamer	/TC25
Boring Bar	/TC26
Tap	/TC27
Internal Thread Mill	/TC29
BallTouch	/TC30
Ignore	/TC00

WinTool classifications mapped to /TC00 are ignored. This means that tools assigned to this classification are not transferred to TopSolid'Cam. This is useful for measurement equipment, fixtures, etc.

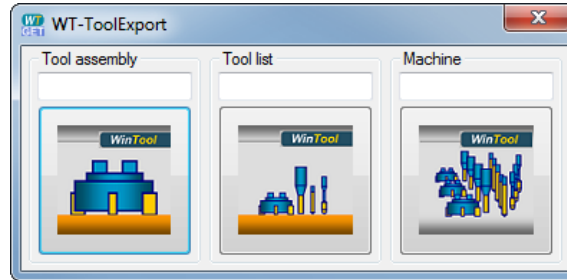
Importing Tool Assemblies

Note: The "TopSolid Machining" library must be in the PDM.


Open a machining project. Start the import by clicking on the WT-GET button.

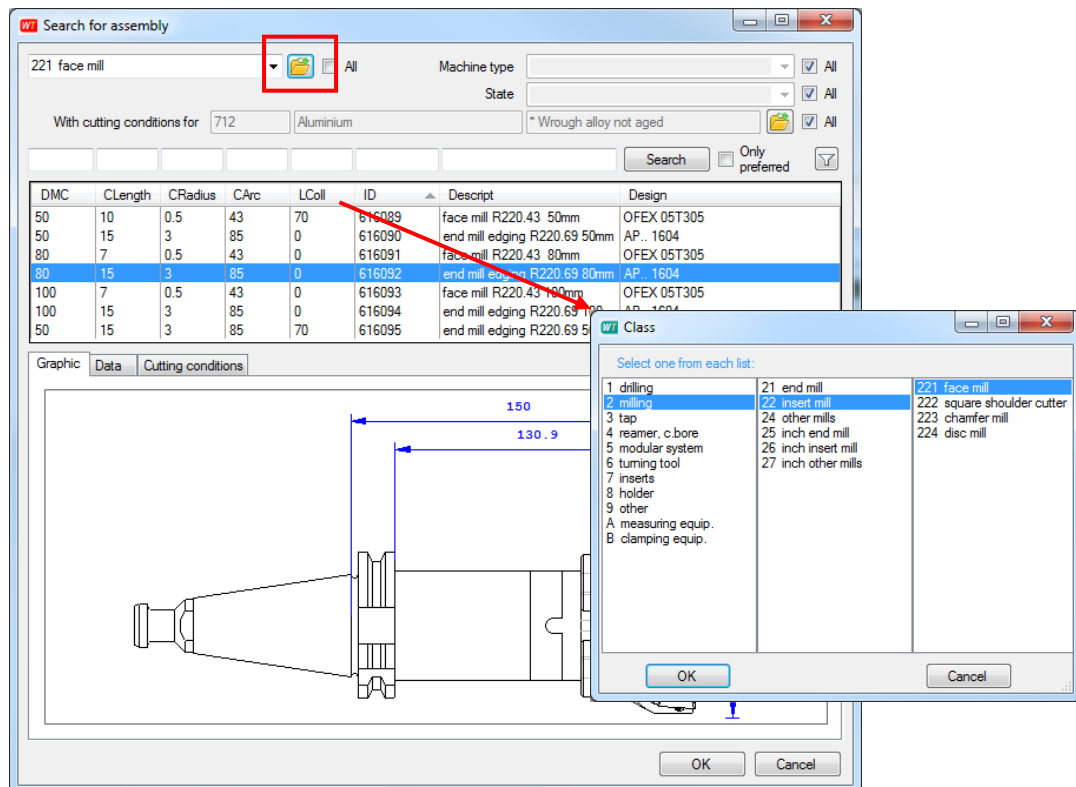


The following WT-ToolExport menu will open:

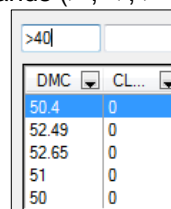



Select the icon for tool assembly to import tools individually or for tool list to load an existing *WinTool* tool list. If you know the tool assembly ID or tool list name, you can fill in the value and hit enter on your keyboard.

The tools will immediately be transferred. Click on  to open the tool classification tree. Select and highlight the desired tool.



There are filters available for machine type, tool data release state, cutting conditions for different materials, and preferred tools. You can also enter commands (> , < , >= , <=) to filter a list of tools:



The function  turns on combo box selection for the tool values:

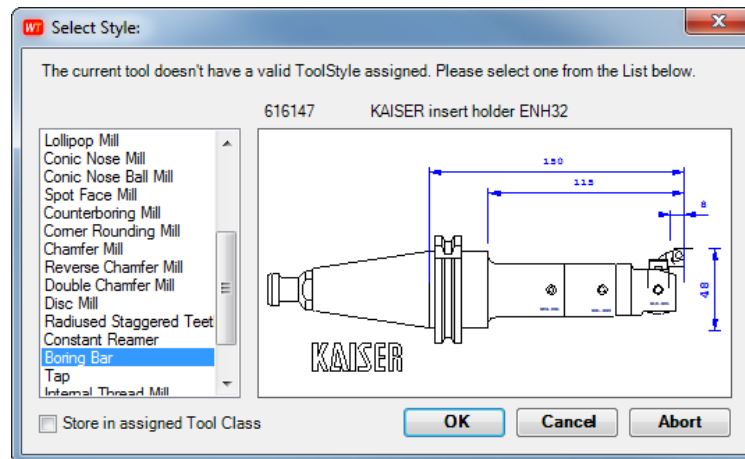
DMC	CL...	CR...	CArc	LColl	ID	Descript	Design
50.4	0	0	0	0	500057	BARRA MICROMÉTRICA Ø...	
22.4	0	0	180	70	500058	BMA-003-Ø20-15,5	Inserts CC73-0602??N
36.55	0	0	180	51	500062	CPM-001-C/ Ø36,55	Inserts CC73-0602??N

You can review detailed tool data in the folder tabs Graphic, Data, and Cutting conditions:

Graphic	Data	Cutting conditions
<p>Diameter (D) 50.4</p> <p>Dia step 1 (Da) 0</p> <p>Collision Dia (Dx) 0</p>		

If no TopSolid'Cam tool type has been previously assigned to the selected *WinTool* classification of the tool assembly, you must do it now.

This will map the *WinTool* classification to the TopSolid'Cam tool type. Select the correct TopSolid'Cam tool type from the selection list.



If you select "Ignore" to assign to a tool classification, the tool assemblies in this classification will not be transferred at all. This is useful for data that must not be transferred to TopSolid'Cam, e.g. measuring equipment.

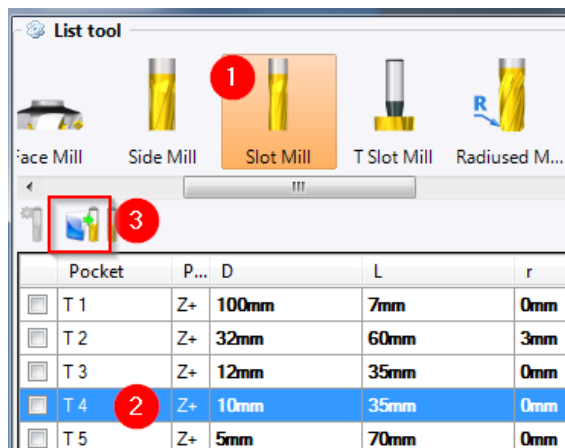
The tool assemblies are created in a library called "WinTool Tools". A reference to this library is added automatically in the currently open machining project.

Assigning Tool Assemblies to a Pocket

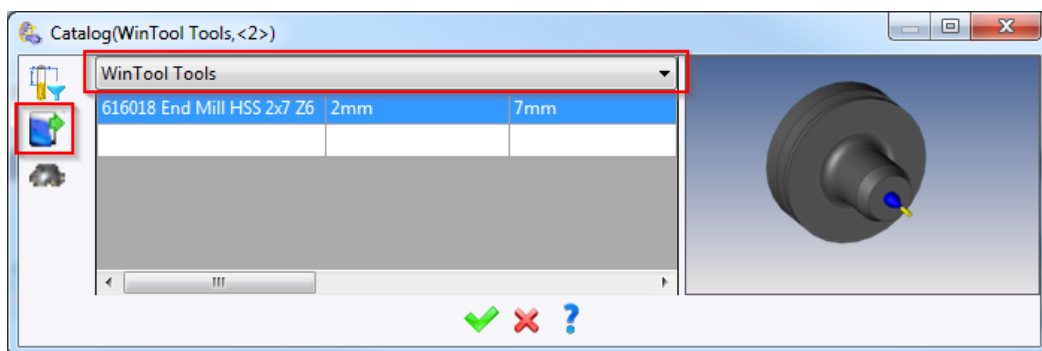
Tool assemblies must be assigned to a pocket before they can be used in an operation. This can be achieved via the tool selection in the operation definition or the tool manager.

The pocket list is now displayed.

1. Select the tool type of the tool assembly you would like to assign to the pocket
2. Select the pocket where the tool assembly will be placed
3. Click on the "Import from catalog" button



In the next window, if the "WinTool Tools" library is not active, click on the "Tools Library" button on the left side and select "WinTool Tools" from the dropdown list.



Double-click on the tool assembly you would like to add to the pocket.

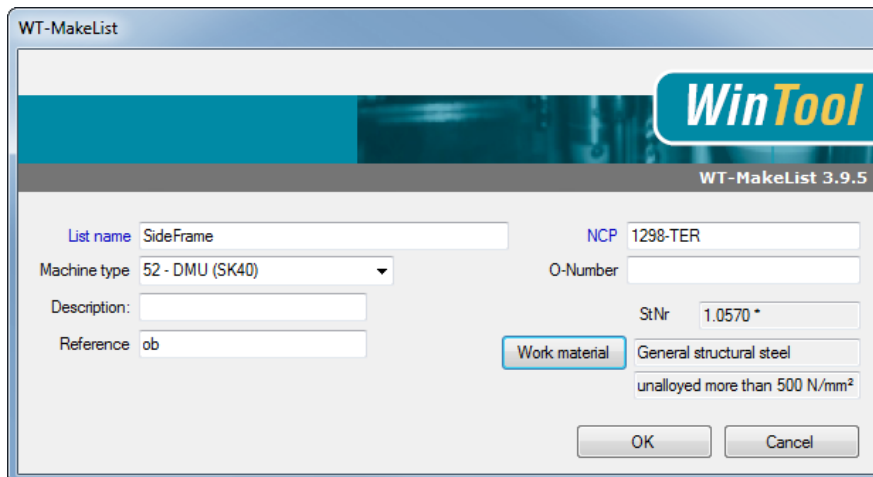
Export Tool List To *WinTool*

When you have finished the NC program, the list of all the tools used in the TopSolid'Cam project must be stored back to *WinTool*. This will allow the next person in the production process to continue with the job.

Start the export by clicking on the WT-PUT button.

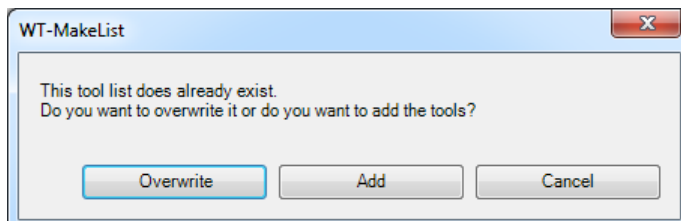


Edit the tool list header information:

The WT-MakeList dialog box is shown. It has a title bar 'WT-MakeList' and a 'WinTool' logo in the top right corner. The version 'WT-MakeList 3.9.5' is displayed in the bottom right. The form contains several fields: 'List name' with the value 'SideFrame', 'Machine type' with a dropdown menu showing '52 - DMU (SK40)', 'Description:' with an empty text box, 'Reference' with the value 'ob', 'NCP' with the value '1298-TER', 'O-Number' with an empty text box, 'StNr' with the value '1.0570 *', and 'Work material' with the value 'General structural steel' and a sub-label 'unalloyed more than 500 N/mm²'. There are 'OK' and 'Cancel' buttons at the bottom right.


Select "OK" to store the information in the *WinTool* database.

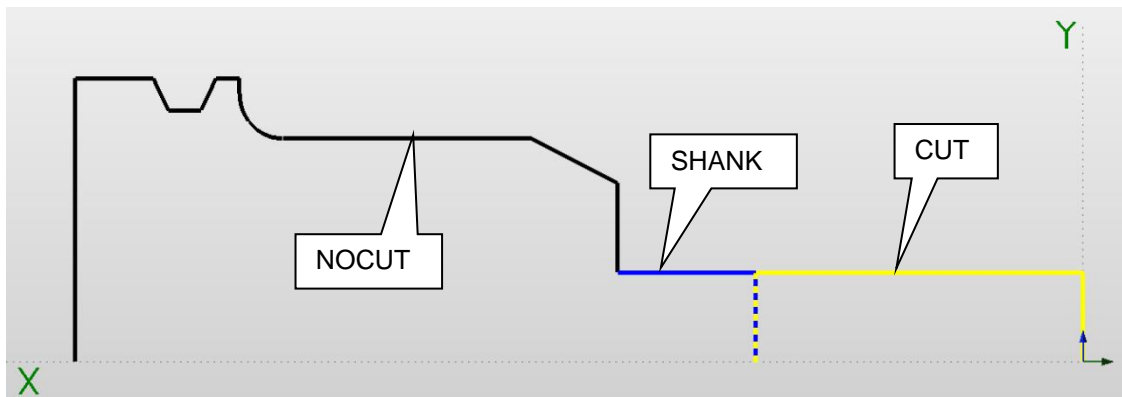
If a tool list with the same List Name already exists in *WinTool* the following dialog box appears:

A smaller dialog box titled 'WT-MakeList' with a close button (X) in the top right corner. The text inside reads: 'This tool list does already exist. Do you want to overwrite it or do you want to add the tools?'. At the bottom, there are three buttons: 'Overwrite', 'Add', and 'Cancel'.

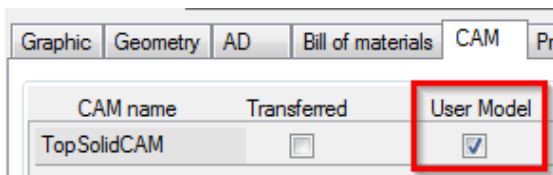
Custom Tool Assembly Contour

If a contour of a tool assembly cannot be created automatically with the Shape-Generator, you can create the DXF file manually.

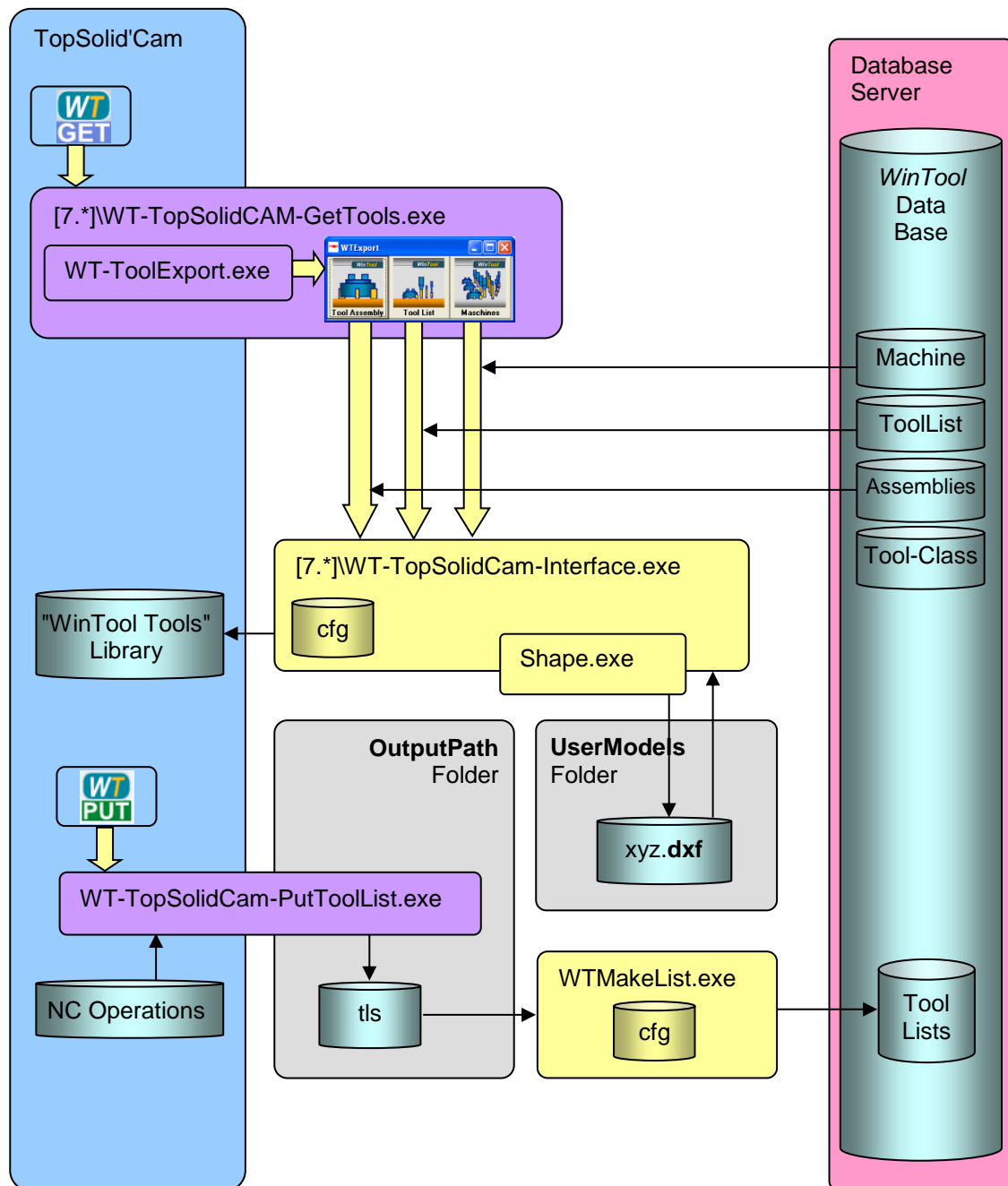
- Open the tool assembly and use the Shape-Generator button to create a DXF contour. Even if a tool is not supported fully by the Shape-Generator, it will create in most cases a contour-DXF, although not with all additional details of the custom tool - but with a lot of useful elements in place already: holder, extensions, reductions, shank, total length, correct layers, etc. 
- Then modify it with Vector or any other DXF editor until it is exact. You must use the layers CUT, NOCUT, and SHANK:



- The CUT layer is independent from the shank and holder closed contour. It **must** start and end at the X-axis ($Y=0$). Only the first and the last line of the contour are allowed to start/end at X-axis.
- The SHANK and NOCUT layer together must form a closed contour. It **must** start and end at the X-axis ($Y=0$). Only the first and the last line of the contour are allowed to start/end at X-axis.
- When you have finished the modification, you must save the file in the User Models Path with the name of the *WinTool* tool assembly Ident No (e.g. 616089.dxf). Already existing files must be overwritten.
- Assign the new DXF to the *WinTool* tool assembly: Check the box "User Model" in the tab "CAM" in the row containing "TopSolidCam". If it is missing, please activate TopSolidCam in "Settings" > "CAM settings" on the main *WinTool* screen.



Software Structure



History

1.1

- ✓ Compatible with TopSolid'Cam 7.8 and 7.9
- ✓ Compatible with *WinTool* 2011 – 2015
- ✓ Importing tool assemblies into "WinTool Tools" library instead of current project
- ✓ Corrected center drill import
- ✓ Corrected pocket number extraction in tool list export