

# MPPOSTABILITY\_MILL\_TURN

Post Name : MPPPOSTABILITY\_MILL\_TURN  
Product : LATHE/MILL  
Machine Name : MACHINE  
Control Name : CONTROL  
Description : GENERIC G-CODE POST (MILL-TURN)  
4-axis/Axis subs. : YES  
5-axis : YES  
Subprograms : YES (CODE STREAM 1 ONLY)

## How to Use This Document

This documentation is provided alongside MPPostability Post Processor Documentation. Please refer to it first for generic post information. Any miscellaneous values, post switches, etc. that are not identified here will be located in the main document.

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## Milling Post

If you would like to run your Mill-turn machine with Mastercam mill please let us know. It is possible to make a machine definition (.mmd) so you can do so.

## Rotary Interpolation

This post supports the use of face or diameter rotary interpolation functions (G12.1/G112 and G07.1/G107). The can be turned on using **misc int 9**.

## Code Streaming

This post processor supports up to 4 individual code streams. Code streams are typically setup based on axis combination. Axis combinations are determined by current turret and spindle.

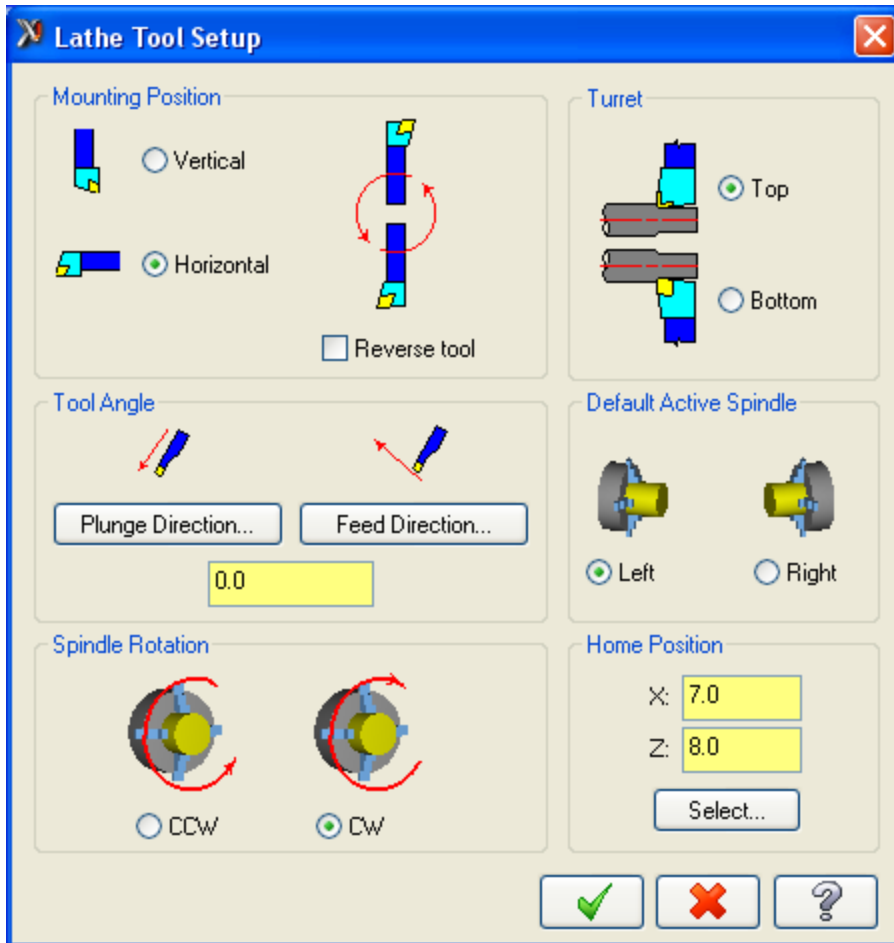
For lathe tool paths, the default axis combination is based on your tool definition. For milling tool paths, the default is always the first in the list.

Note that if the post processor is producing multiple code files only the first code file will be opened automatically in your editor. The others must be opened manually from the same directory.

## B-Axis and Milling Spindle Index

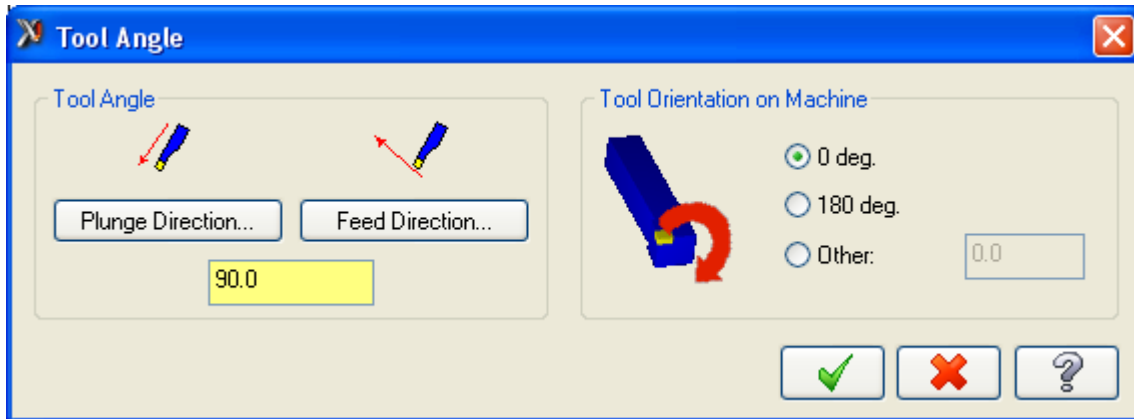
If you are turning on a machine with an upper tilting B-axis you will often wish to use the same tools in different orientations. This can be accomplished using the following steps:

First, create/define your tools so they are orientated how they would be at B-axis 0 and mill spindle rotation 0. Eg. If your B0 position is horizontal, define your tools as a horizontal mounting position.



Next, if you wish to work with the tool in a different orientation, change the tool angle in the tool angle dialogue box on the toolpath parameters page. Following the previous example, if you wish for the tilting B-axis to tilt down so it's orientated in a vertically, enter a 90 for tool angle. If you wish to use the tool vertically but on the sub spindle you may need to change the mill spindle angle (tool orientation on machine) to 180.



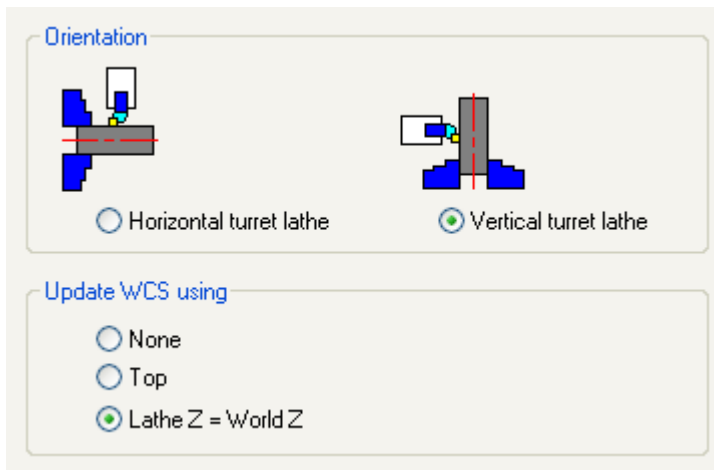


### VTL Mode

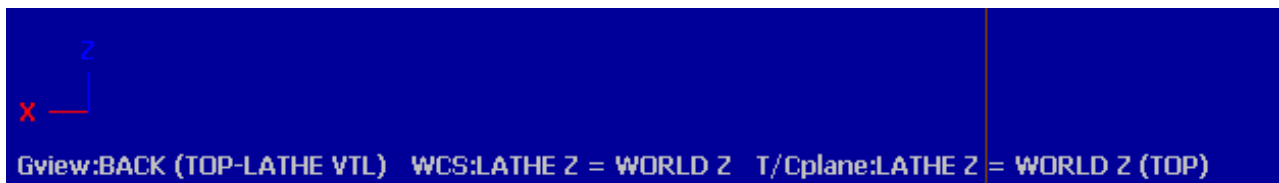
It is possible to setup any post for a VTL. To do so, use the following steps:

In the General Machine Parameters select Vertical Turret Lathe. Change the WCS to Lathe Z = World Z or Top.

### Lathe Z = World Z

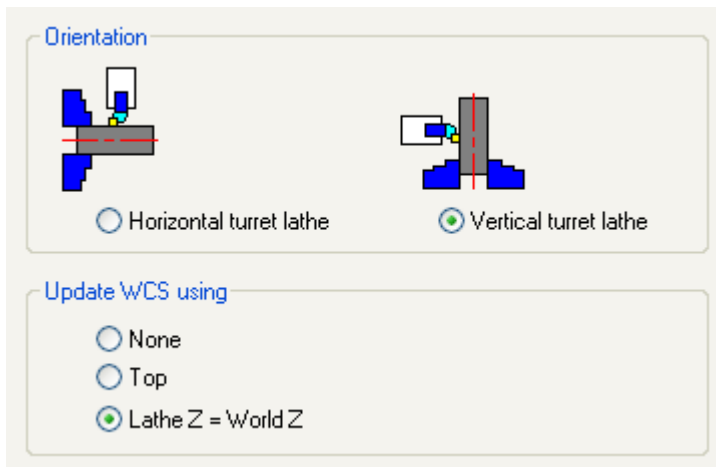


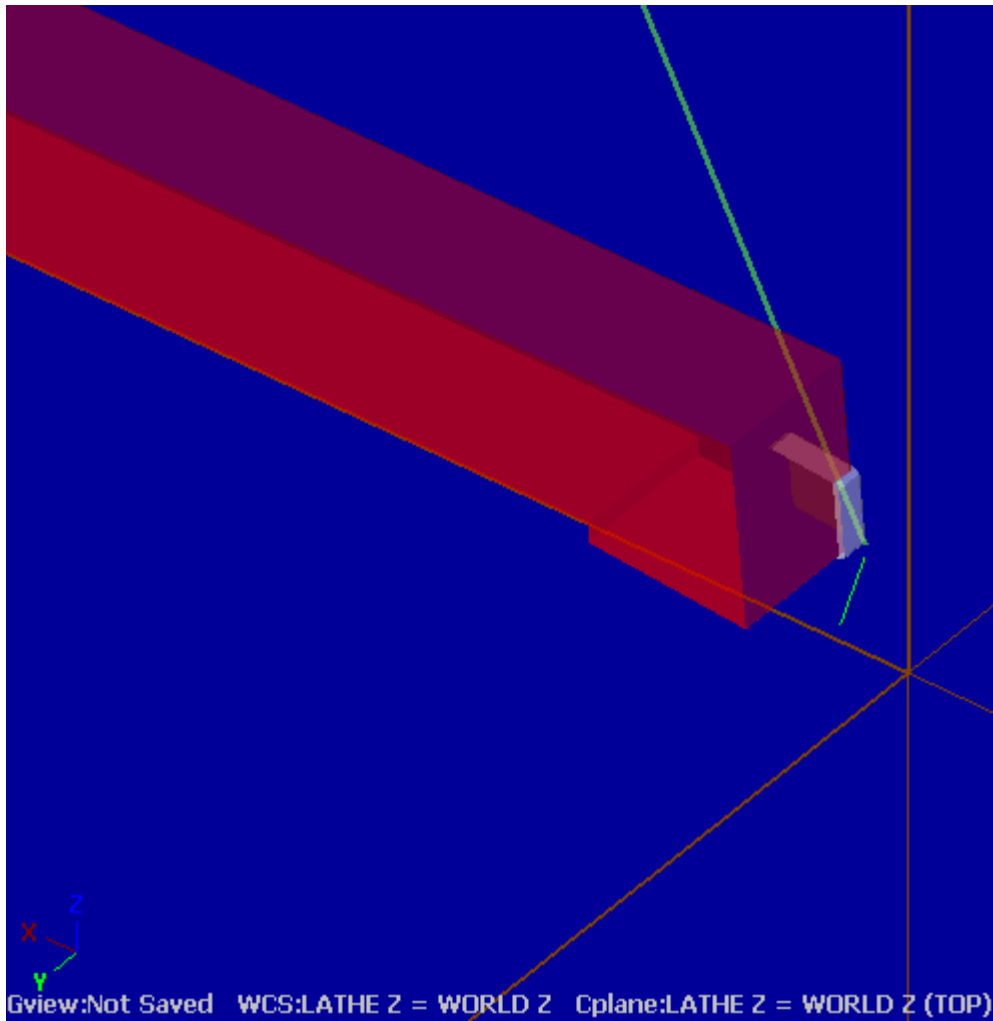
If you hit ALT + 1 on your keyboard you will change to the top Gview, this is called BACK (TOP-LATHE VTL). The coordinate system in the lower left coincides with the one of your machine.



To machine on the part face hit ALT + 5.

Example. VTL Turning, Lathe Z = World Z, Isometric View. Notice that the tool comes from the +X side. During regular horizontal turning, Mastercam's right side view represents the machine coordinate system. The tool comes from +X and motion along the part is -Z. This is the equivalent coordinate system for VTL.



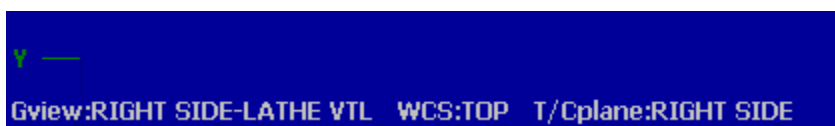


### Top WCS

If you hit ALT + 1 on your keyboard you will change to the top Gview, this is called TOP-LATHE VTL. The coordinate system in the lower left does not coincide with your machine.



To machine on the part face hit ALT + 5.



Example. VTL Turning, Top WCS, Isometric View. Notice that the tool comes from the +Y side. This is the equivalent VTL coordinate system to the Top coordinate system for horizontal turning. For this coordinate system, the tool comes from -Y and a move along the part is -X.

