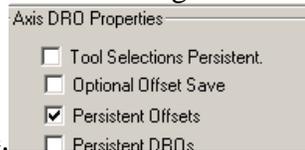


Just a quick general start to finish to getting your lathe set up and making chips.

LATHE TOOL SETUP

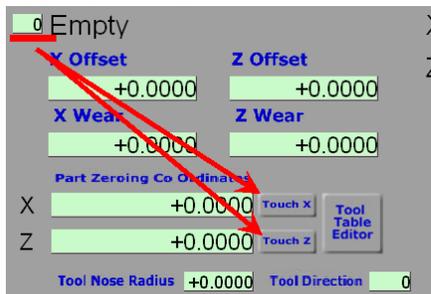
Here is a quick step by step to quickly set up your tools for use on the lathe.
Well assume you have 3 tools:

First tick Persist Offsets in Configuration. This is done so that the tool table is saved on



exiting Mach Lathe.

1. Put the master tool into the holder
2. Move the cutting tip / controlled point to $X&Z=0$
3. Put 0 in the tool number box and click Touch X and Touch Z
4. Jog away from 0,0 (anywhere is fine) so you can insert the next tool



Repeat the above steps for all the other tools using the next / new tool number.

SO:

1. Put tool #1 in the holder
2. Move the cutting tip / controlled point to $X&Z=0$
3. Put 1 in the tool number box and click Touch X and Touch Z
4. Jog away from 0,0 (anywhere is fine) so you can insert the next tool

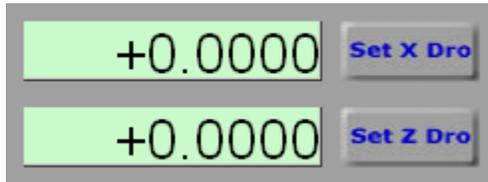
Continue doing the above until all the tools have been touched off. When you open the tool table you can name rename each tool and see the offsets of the tools. Make sure that all the tools are either front or back and not a mixture of both. Forget about all the other stuff.

HOW TO SET UP AN OFFSET IN PREPARATION TO MACHINE A PIECE

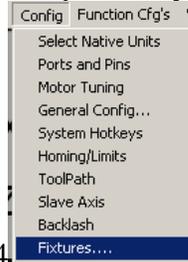
Put tool #0 in the holder and move the carriage to some place where you want to change tools. Click Zero World X & Z as that will clear all Fixture Offsets (ie G54..) and zero all the axis. Now click Set Home X & Z buttons.



Make sure that the selected tool is 0 . Now move the carriage such that Tool #0 is located at X & Z = 0. Click Set X & Z DRO buttons.



You have just created a fixture offset from the home position you defined above. If you

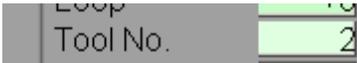


Open the Fixtures you will see the values in G54

If you click Home All the carriage will move back to home. Clicking the other buttons



will move a single axis in a direction first before going home

If you put say tool #2 in the holder and  in the tool select and

then using the MDI type:  the carriage will move the controlled point (the tool tip) to X & Z =0use the home buttons or G28 command to return to the home position.

You could use any of the tools to touch off to the part...Remember this:
Each tool is related to the master tool but they are also related to each other!

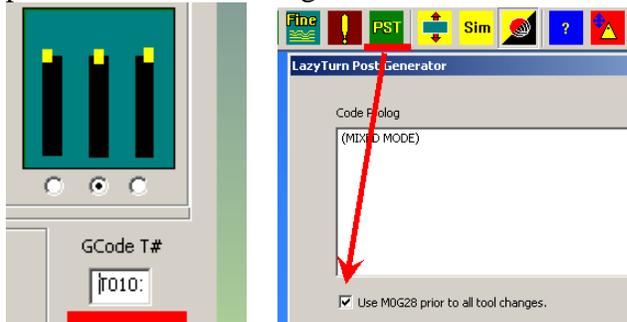
USING MACH3 LATHE AND LAZYTURN

So you have created a tool table, know how to create a home position and touch off to a piece in the lathe. Let's now use what you learned and cut a part.

We'll assume Lazyturn was used to generate the Gcode for the profile to be done. The generated code is based on using say tool #1 for the roughing and tool #2 for finishing. Those tools are also defined in the Mach tool table. Remember that you CAD in diameter, used Lazyturn in Diameter and that Mach is configured for Diameter.

DO not mix, it's diameter or radius, not a mixture of both!

Also note that when you post code in LazyTurn make sure you tick the box so that a G28 is done for every tool change. This will return your carriage / tool back to the home position for a tool change.



So you open the program file, put the stock in the lathe, have the carriage moved to a position so that you can change the tool and also define that position as home. Then you touch off a tool to the stock and create the offset. Move back to home position and your ready to make some chips!

RICH