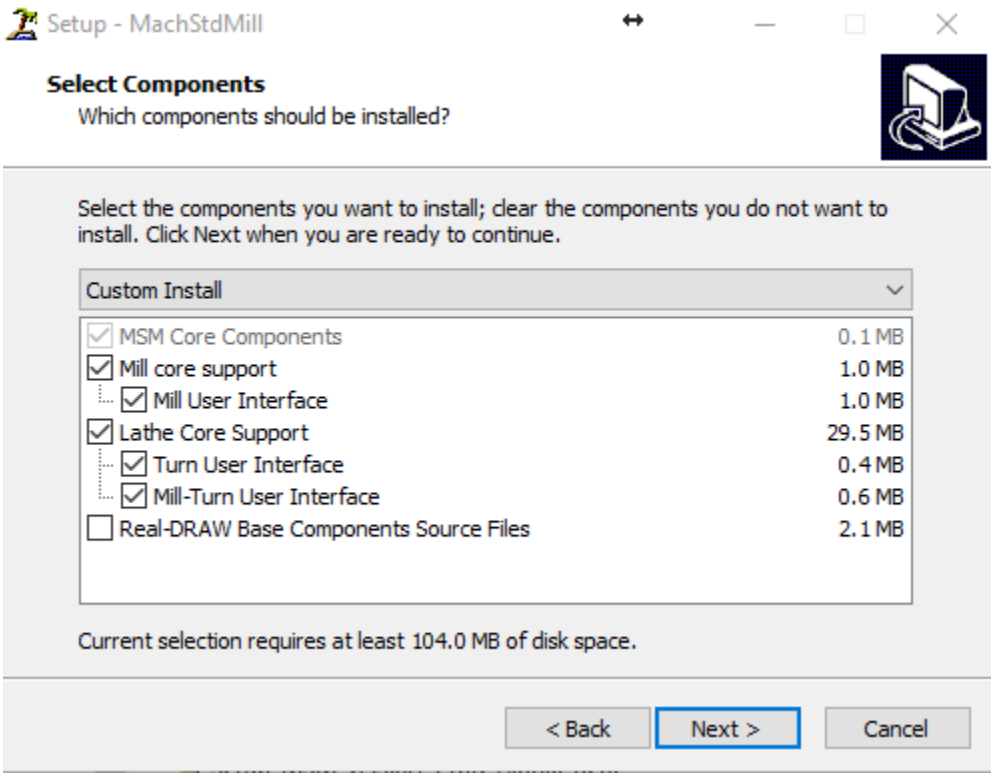
MachStdMill Mill Turn offset test

9-11-2017

Here are the steps I did for a simple test of whether mill turn offsets are begin applied.

MSM version 2.3.11 beta (a private non-released version with additional debug messages for tool change operations).

1) install MSM 2.3.11 beta, be sure to select the options as follows:



2) Start mach with your mill turn profile.

3) make sure the mill turn screen set is selected.

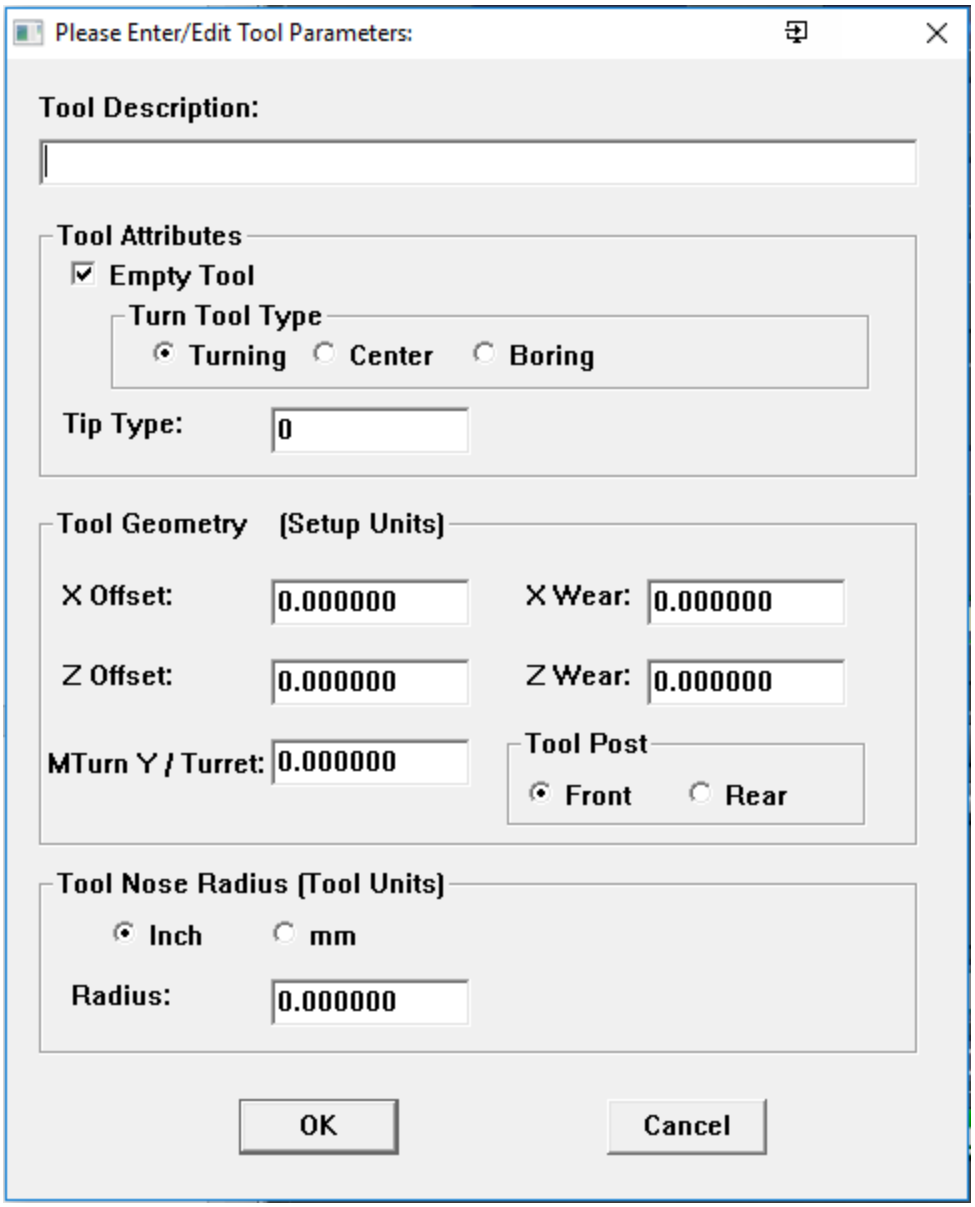
Settings page; load screen button; MachStdMillLathe-MillTurn-v3_10x7.lset

4) check that you are in lathe mode – the upper right corner of the screens will say “lathe mode” in yellow.

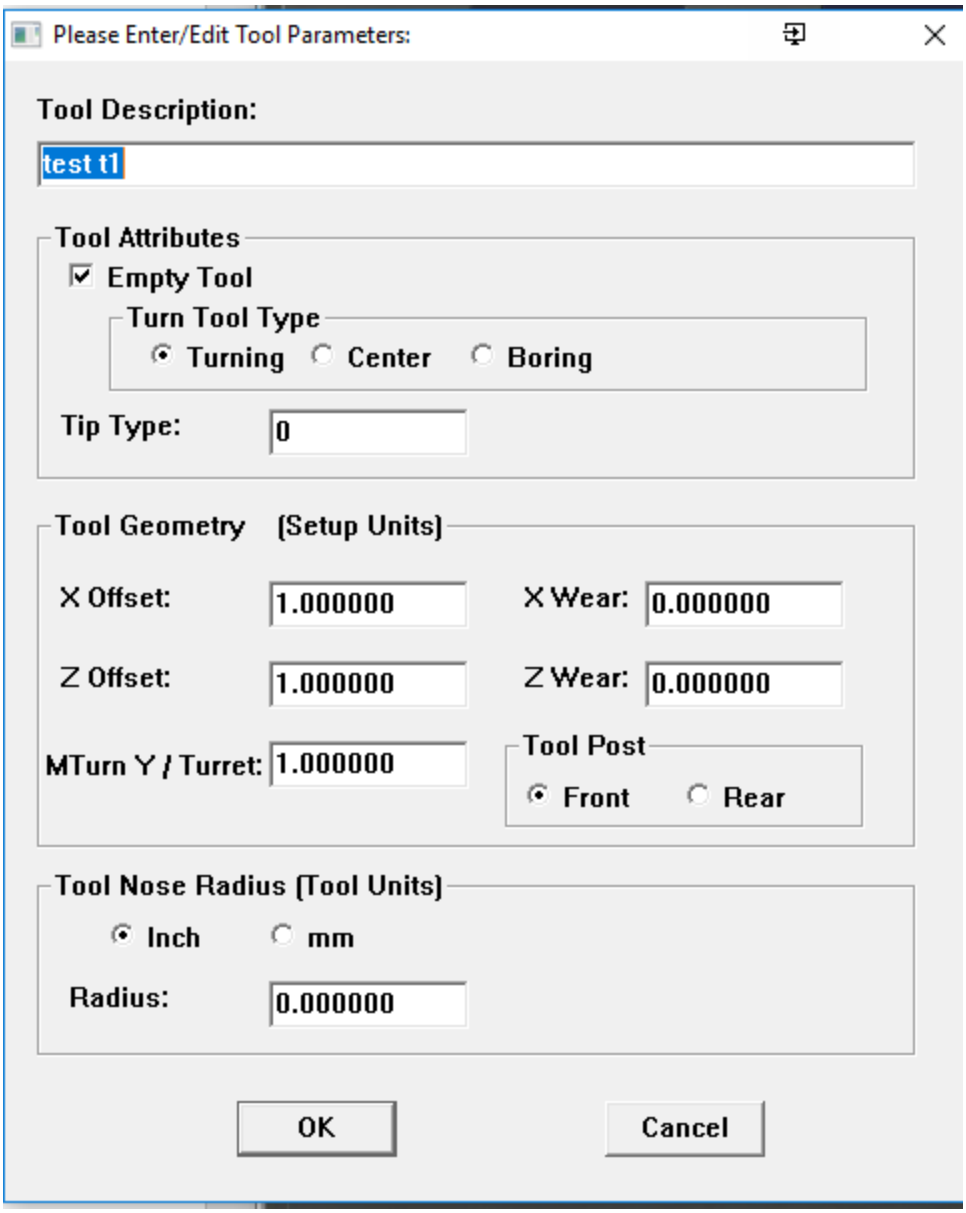
5) go to tooling page. Check that options are set as shown here:

6) Now I set up two tools:

T1 = the master tool. It's offsets wil all be = 0 (as it is the master tool) as shown:



Then I set up a working tool (#2) with simple offsets that would be easy to see when they are applied.



7) now then I set up for an easy to follow set of coordinate offsets. This can be done in sim mode to make life simple….

Go to the offsets page, using MDI I did: G53 G0 X0 Y0 Z0

At this point the WC offset table looks like this:

8) now I want the axes to be referenced as this is required for tool changes.

I accomplish this using the following script to force things to MC0 and mark the axes as referenced:

(you can run this via the mach script editor if you want)

```
Option Explicit

code ("G40")
code("G90 G00 G53 X0 Y0 Z0")

DoOEMButton(1008)    ' zero x
DoOEMButton(1009)    ' zero y
DoOEMButton(1010)    ' zero z

doOEMButton(246)     ' force all to referenced state

While IsMoving()
wend
```

After running the script the offsets panel looks like this:

9) now make sure that to1 is mounted with T01 offsets, so I did t0101 via MDI, and after the tool change the table still looks the same (as T01 is the master and all offsets = 0).

10) Now I changed to T02 via mdi of T0202

…and now the offsets and current positions for the machine are:

Note the machine cords: it shows that the Y axis was moved by 1” to set the Y coord offset during the tool change. Also the X and Z offsets have been applied by Mach so that the WC is now reflecting the tool offsets for X and Z.

Please follow these steps and let’s see where your system starts to differ from what I am seeing.