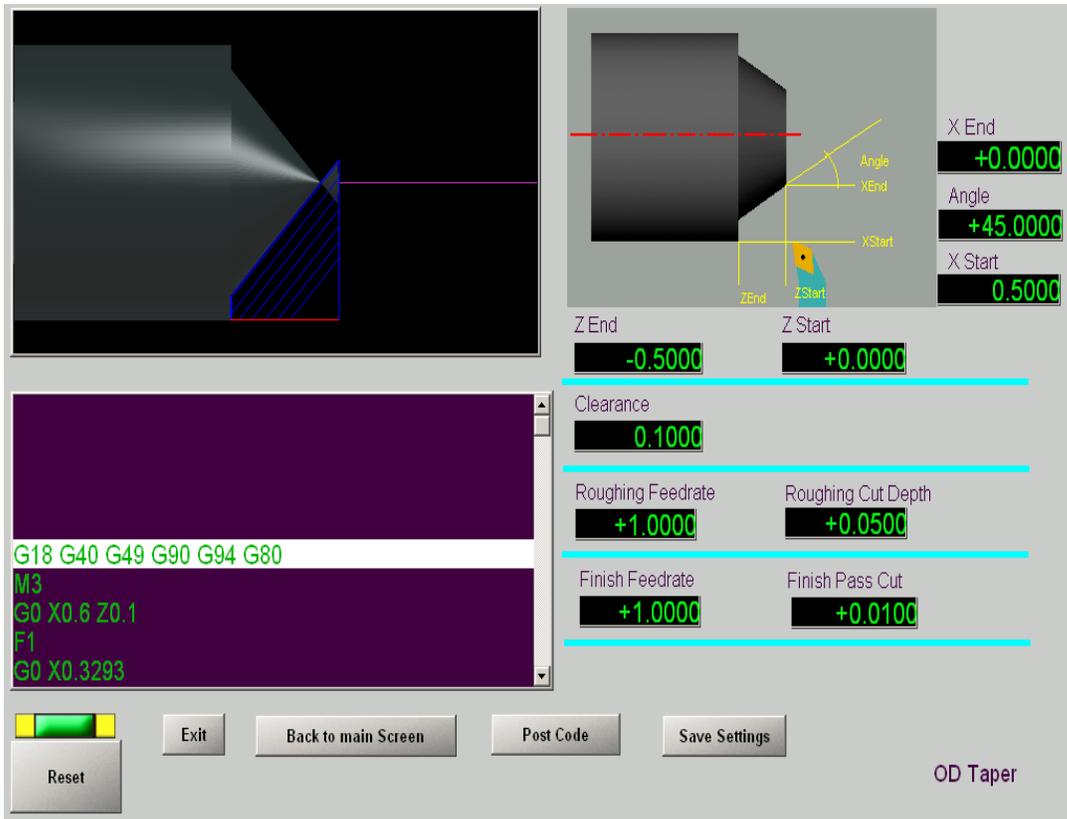


OD TAPER WIZARD USING YOUR INPUTS, NOTE THAT THE LATHE IS CONFIGURED IN RADIUS MODE.



Here is the generated code and note that I use an initialization macro so my lathe is in a preferred state on startup.

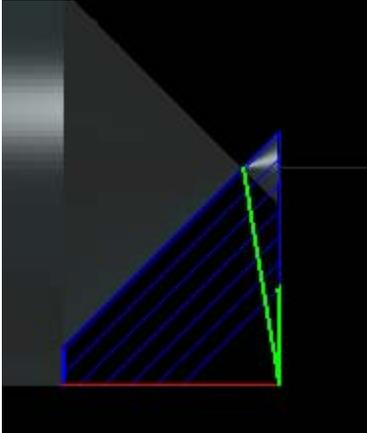
```
G18 G40 G49 G90 G94 G80
M3
G0 X0.6 Z0.1
F1
G0 X0.3293
G1 X0.6 Z-0.1707
G0 Z0.1
G0 X0.2586
G1 X0.6 Z-0.2414
G0 Z0.1
G0 X0.1879
G1 X0.6 Z-0.3121
G0 Z0.1
G0 X0.1172
G1 X0.6 Z-0.3828
G0 Z0.1
G0 X0.0464
G1 X0.6 Z-0.4536
G0 Z0.1
G0 X-0.0243
```

```

G1 X0.5657 Z-0.49
G1 X0.6
G0 Z0.1
G0 X-0.09
G1 X0.5 Z-0.49
G1 X0.6
G0 Z0.1
F1
G1 X-0.1
G1 X0.5 Z-0.5
G1 X0.6
G0 Z0.1
M5
M30

```

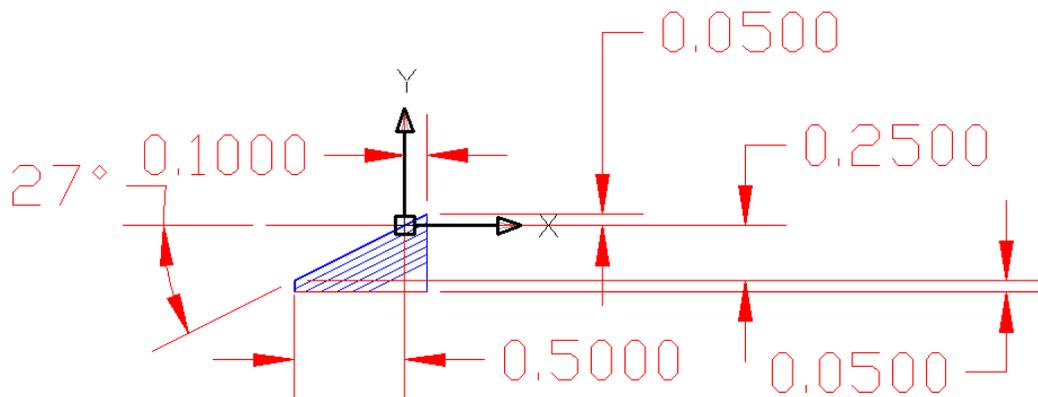
This is the first rapid move from the start point of 0,0 in Mach.



Here is the code back plotted into CAD:(remember that we are in radius mode)

So.....

- The angle from the code will be 1/2 the inputted angle which was 45 deg. (the 27 degrees is due to a CAD setting namely dimensionss angles in increments of 1 deg)
- The clearance, on one side will be 1/2 the total value which was .1 but the Z clearance will be the total amount.



This is the code you posted and it certainly is not like the code above.

```
G18 G40 G49 G90 G94 G80
M3
G0 X2.397 Z-0.133
F5
G0 X1.7355
G1 X2.0135 Z-2.785
G1 X2.397
G0 Z-0.133
G0 X1.7055
G1 X1.9834 Z-2.785
G1 X2.397
G0 Z-0.133
G0 X1.6754
G1 X1.9534 Z-2.785
G1 X2.397
G0 Z-0.133
G0 X1.6616
G1 X1.9395 Z-2.785
G1 X2.397
G0 Z-0.133
F2.5
G1 X1.6416
G1 X1.9206 Z-2.795
G1 X2.397
G0 Z-0.133
M5
M30
```

USING THE SAME WIZARD INPUTS BUT WITH THE **LATHE IN DIAMETER MODE**
HERE IS THE CODE:

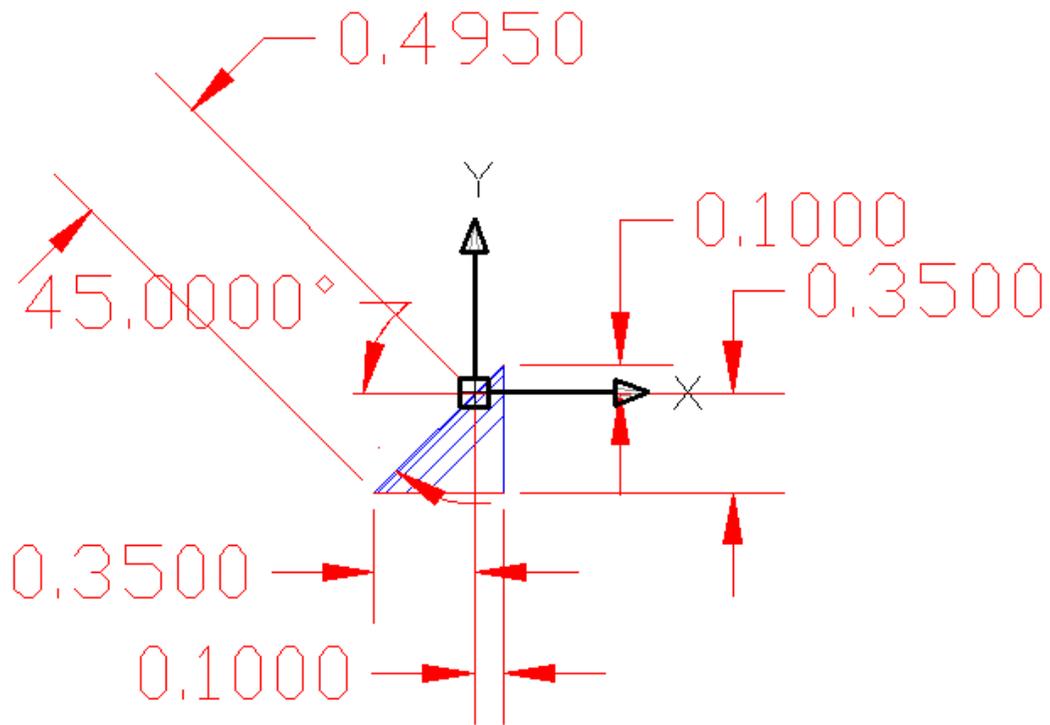
```
G18 G40 G49 G90 G94 G80
M3
G0 X0.7 Z0.1
F1
G0 X0.1586
G1 X0.7 Z-0.1707
G0 Z0.1
G0 X0.0172
G1 X0.7 Z-0.2414
G0 Z0.1
G0 X-0.1243
G1 X0.7 Z-0.3121
G0 Z0.1
G0 X-0.18
G1 X0.7 Z-0.34
```

```
G0 Z0.1
F1
G1 X-0.2
G1 X0.7 Z-0.35
G0 Z0.1
M5
M30
```

Here is the code back plotted into CAD:(remember that we are in diameter mode)

So.....

- The angle from the code is the inputted angle which was 45 deg.
- The clearance, on one side will be the total value which was .1 and the Z clearance will be the total amount.



There are differences depending on the lathe default settings. You think this one is confusing wait till you try to do a tapered thread....!

RICH