

Use this as a page by page configuration set-up guide for your Version 2.14 software.

### Configuration

Category: Machine Tool

Machine Tool

	Step Mode (micro steps/ full step)	Motor Res. (full steps/ motor rev)	Gear Ratio (motor rev/ screw rev)	Screw Thread (screw rev/inch)	Tool Positioning Resolution (inches, calculated)
X	2	200	1.64000000	1.00000000	0.001524390244
Y	2	200	1.64000000	1.00000000	0.001524390244
Z	2	200	1.64000000	1.00000000	0.001524390244
A	2	200	72.00000000	1.00000000	0.012500000000

Configuration

Machine Type: Mill

Use Axes:  X  Y  Z  A

4th Axis Type: Rotary

Lathe Tool: Near Side

General

	Axis Length (inches)	Pt. Move Linear Interp.	<input type="checkbox"/> Backlash Comp Backlash (inches)
X	96.0000	Yes	0.0000
Y	48.0000	Yes	0.0000
Z	96.0000	No	0.0000
A	36000.0000	No	0.0000

OK Cancel

### Configuration

Category: Homing

Homing

	Home End	Home Order	Home Axis	Home Switch Offset (inches)	Homing Rate (in/min)	Homing Tolerance (inches)
X	Neg	1	Yes	0.1000	70.00	0.0000
Y	Pos	2	Yes	0.1000	70.00	0.0000
Z	Pos	3	Yes	0.1000	70.00	0.0000
A	Neg	4	No	2.0000	360.00 */min	0.0000

Seek Home Button

Hide Results if in Tolerance  
 Reset Machine Zero  
 Always Display Results

G27 Command

Hide Results if in Tolerance  
 (Resets Machine Zero)  
 Always Display Results

Maximum Homing Attempts: 1

OK Cancel

### Configuration

Category: Feedrate/Ramping

Machine Tool  
Homing  
**Feedrate/Ramping**  
Reference Points  
Point List  
Fixture Offsets  
Input Lines  
Output Lines  
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M-Code Definitions  
M-Code Execution  
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**Axes**

	Start/Stop Feedrate (in/min)	Maximum Feedrate (in/min)	Ramping Rate (full steps/sec/sec)	Direction Change Delay (sec)	Continuous Contouring Feedrate Tol. (in/min)
X	35.00	250.00	4000	0.000	25.00
Y	35.00	250.00	4000	0.000	25.00
Z	70.00	300.00	4000	0.000	70.00
A	360.00 */min	1440.00 */min	4000	0.000	360.00 */min

**Jog Rate**

	Linear	Rotary
Slow	10.00 (in/min)	360.0 (* /min)
Med	50.00 (in/min)	720.0 (* /min)
Fast	250.00 (in/min)	1440.0 (* /min)

**General**

Max Arc Feedrate: 100.00 (in/min)  
Pt. Feedrate - Linear: 50.00 (in/min)  
Pt. Feedrate - Rotary: 720.0 (\* /min)

OK  
Cancel

### Configuration

Category: Reference Points

Machine Tool  
Homing  
Feedrate/Ramping  
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**Reference Points**

Pt. #	G-Code Cmd	Description	Coord System	X Coord. (inches)	Y Coord. (inches)	Z Coord. (inches)	A Coord. (degrees)
1	G28	Tool Change	Mach	0.0000	0.0000	0.0000	0.0000
2	G30 P2		Mach	0.0000	0.0000	0.0000	0.0000
3	G30 P3		Mach	0.0000	0.0000	0.0000	0.0000
4	G30 P4		Mach	0.0000	0.0000	0.0000	0.0000
5	G30 P5		Mach	0.0000	0.0000	0.0000	0.0000
6	G30 P6		Mach	0.0000	0.0000	0.0000	0.0000
7	G30 P7		Mach	0.0000	0.0000	0.0000	0.0000
8	G30 P8		Mach	0.0000	0.0000	0.0000	0.0000
9	G30 P9		Mach	0.0000	0.0000	0.0000	0.0000
10	G30 P10		Mach	0.0000	0.0000	0.0000	0.0000
11	G30 P11		Mach	0.0000	0.0000	0.0000	0.0000
12	G30 P12		Mach	0.0000	0.0000	0.0000	0.0000
13	G30 P13		Mach	0.0000	0.0000	0.0000	0.0000
14	G30 P14		Mach	0.0000	0.0000	0.0000	0.0000
15	G30 P15		Mach	0.0000	0.0000	0.0000	0.0000
16	G30 P16		Mach	0.0000	0.0000	0.0000	0.0000
17	G30 P17		Mach	0.0000	0.0000	0.0000	0.0000
18	G30 P18		Mach	0.0000	0.0000	0.0000	0.0000
19	G30 P19		Mach	0.0000	0.0000	0.0000	0.0000
20	G30 P20		Mach	0.0000	0.0000	0.0000	0.0000

OK  
Cancel

### Configuration

Category: Machine Tool, Homing, Feedrate/Ramping, Reference Points, **Point List**, Fixture Offsets, Input Lines, Output Lines, Analog Output, Tool Change, M-Code Definitions, M-Code Execution, Motor Signals, G-Code, Cutter Compensation, Threading, Tool Length Sensing, Import, Viewports, Communications, System Options, Tooling, Tools in Changer, Files, Messages, Security

Point List

Available Points

- Any Point
- Program Zero
- Machine Zero
- Relative Zero
- Program Start
- Curr. Line Start
- Last Feed Hold
- Tool Change

List on Point Control Panel

- Any Point
- Program Zero
- Machine Zero
- Relative Zero
- Tool Change
- Program Start
- Curr. Line Start
- Last Feed Hold

Add >>

Update Lists

### Configuration

Category: Machine Tool, Homing, Feedrate/Ramping, Reference Points, Point List, **Fixture Offsets**, Input Lines, Output Lines, Analog Output, Tool Change, M-Code Definitions, M-Code Execution, Motor Signals, G-Code, Cutter Compensation, Threading, Tool Length Sensing, Import, Viewports, Communications, System Options, Tooling, Tools in Changer, Files, Messages, Security

G-Code	Description	X Offset (inches)	Y Offset (inches)	Z Offset (inches)	A Offset (degrees)
54		0.0000	0.0000	0.0000	0.0000
55		0.0000	0.0000	0.0000	0.0000
56		0.0000	0.0000	0.0000	0.0000
57		0.0000	0.0000	0.0000	0.0000
58		0.0000	0.0000	0.0000	0.0000
59		0.0000	0.0000	0.0000	0.0000
54.1 P1		0.0000	0.0000	0.0000	0.0000
54.1 P2		0.0000	0.0000	0.0000	0.0000
54.1 P3		0.0000	0.0000	0.0000	0.0000
54.1 P4		0.0000	0.0000	0.0000	0.0000
54.1 P5		0.0000	0.0000	0.0000	0.0000
54.1 P6		0.0000	0.0000	0.0000	0.0000
54.1 P7		0.0000	0.0000	0.0000	0.0000
54.1 P8		0.0000	0.0000	0.0000	0.0000
54.1 P9		0.0000	0.0000	0.0000	0.0000
54.1 P10		0.0000	0.0000	0.0000	0.0000
54.1 P11		0.0000	0.0000	0.0000	0.0000
54.1 P12		0.0000	0.0000	0.0000	0.0000
54.1 P13		0.0000	0.0000	0.0000	0.0000
54.1 P14		0.0000	0.0000	0.0000	0.0000
54.1 P15		0.0000	0.0000	0.0000	0.0000
54.1 P16		0.0000	0.0000	0.0000	0.0000
54.1 P17		0.0000	0.0000	0.0000	0.0000

# Configuration



Category

- Machine Tool
- Homing
- Feedrate/Ramping
- Reference Points
- Point List
- Fixture Offsets
- Input Lines**
- Output Lines
- Analog Output
- Tool Change
- M-Code Definitions
- M-Code Execution
- Motor Signals
- G-Code
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Input Lines

Line #	Function	Location	Description	Wiring
1	Unused	N/A		N.C.
2	Unused	N/A		N.C.
3	Unused	N/A		N.C.
4	Unused	N/A		N.C.
5	Unused	N/A		N.C.
6	Unused	N/A		N.C.
7	Unused	N/A		N.C.
8	Unused	N/A		N.C.
9	Unused	N/A		N.C.
10	Unused	N/A		N.C.
11	Unused	N/A		N.C.
12	Unused	N/A		N.C.
13	Unused	N/A		N.C.
14	Unused	N/A		N.C.
15	Unused	N/A		N.C.
16	Unused	N/A		N.C.

Set All Wiring:

Normally Closed

Normally Open

Debounce Factor:

# Configuration



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Output Lines

Line #	Description
1	Plasma
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Safety Interlocks (Invalid Output Line Combinations)

Output Line #	Set To	Output Line #	Set To
None	On	None	On
None	On	None	On
None	On	None	On
None	On	None	On



### Configuration

Category: M-Code Definitions

M-Codes to Control Output Lines (For Line Columns: '1' = Turn On '0' = Turn Off '-' = No Action)

M Code	Description	Execute Bef./Aft. Move	Delay (sec)	Delay Bef./Aft. Set Ln.	Ln. 1	Ln. 2	Ln. 3	Ln. 4	Ln. 5	Ln. 6	Ln. 7	Ln. 8
50	Plasma On	Before	4.8	After	1	-	-	-	-	-	-	-
51	Plasma Off	Before	1.5	After	0	-	-	-	-	-	-	-
		Before	0.0	After	-	-	-	-	-	-	-	-
		Before	0.0	After	-	-	-	-	-	-	-	-
		Before	0.0	After	-	-	-	-	-	-	-	-
		Before	0.0	After	-	-	-	-	-	-	-	-
		Before	0.0	After	-	-	-	-	-	-	-	-
		Before	0.0	After	-	-	-	-	-	-	-	-
		Before	0.0	After	-	-	-	-	-	-	-	-

M-Codes to Execute Macros

M Code	Description	Macro	Execute Bef./Aft. Move
			Before
			Before
			Before
			Before
			Before

OK Cancel

### Configuration

Category: M-Code Execution

Automatic Execution Mode

- None
- On Errors
  - Limit/Safety/Spindle Error: M
- Basic
  - Start (After Hold): M
  - Feed Hold/Error: M
- Full
  - Feedrate Move: M
  - All Other Times: M

OK Cancel

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Motor Signals

Motors

	Motor Line	Motor Direction
X	1	Positive
Y	2	Negative
Z	3	Positive
A	4	Positive

Signals

Driver Model: Other (set parameters manually)

Step Pulse Polarity: Low

Step Pulse Activation: Normal

Step Pulse Width: 15 (µsec)

Min Time Between Steps: 1 (µsec)

Direction-Step Setup: 1 (µsec)

Min Step-Direction Lag: 30 (µsec)

Enable Signal Polarity: High

Dynamic Enable Line

OK

Cancel

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G-Code

General

- Execute G54 - G59
- Execute Optional G-Code Lines
- Execute M01
- Message On M00/M01 (Program Pause)

G73/G83 Retract Distance: 0.0400 (inches)

Helical Interpolation Accuracy: 0.0010 (inches)

M100 / M101

Debounce: 0.200 (sec)

Timeout: 600.000 (sec)

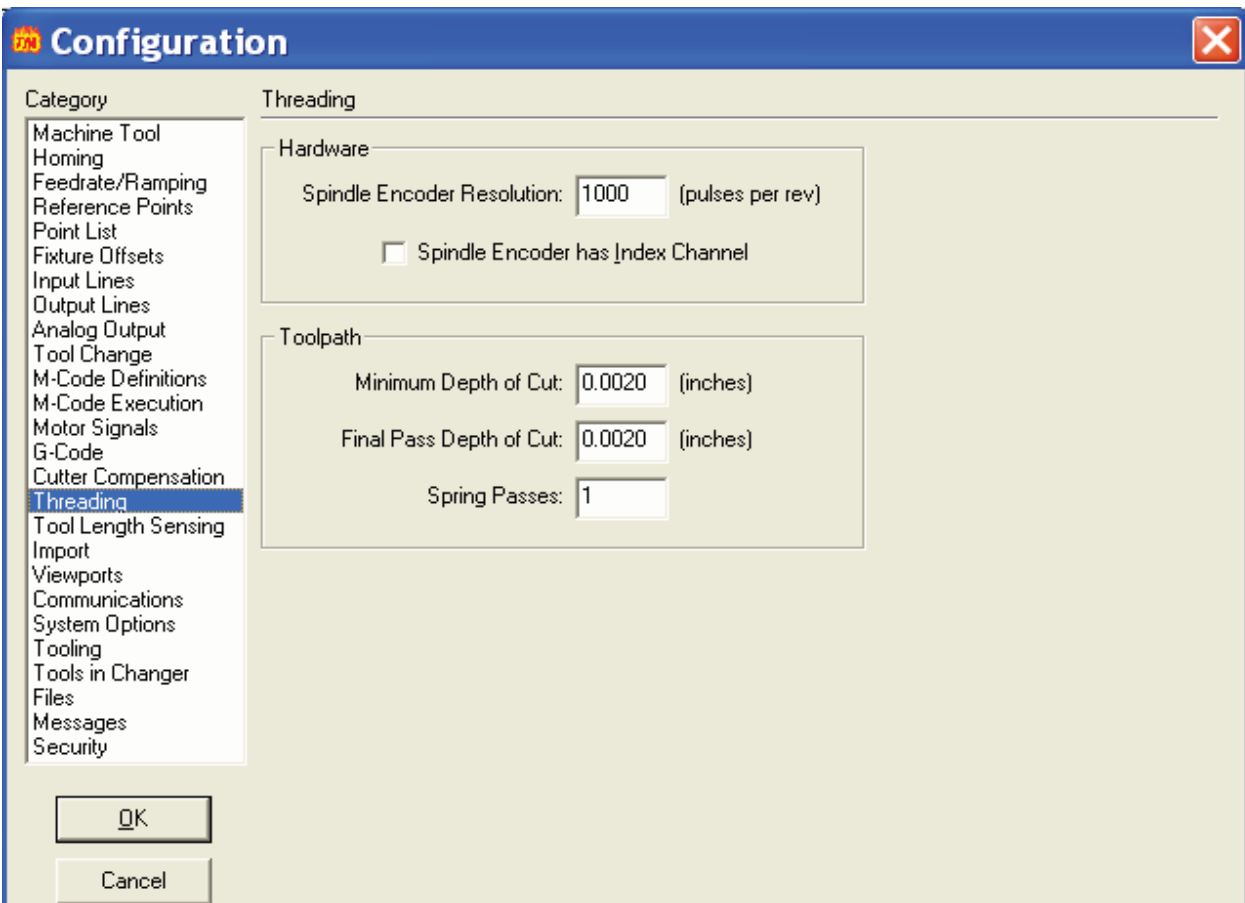
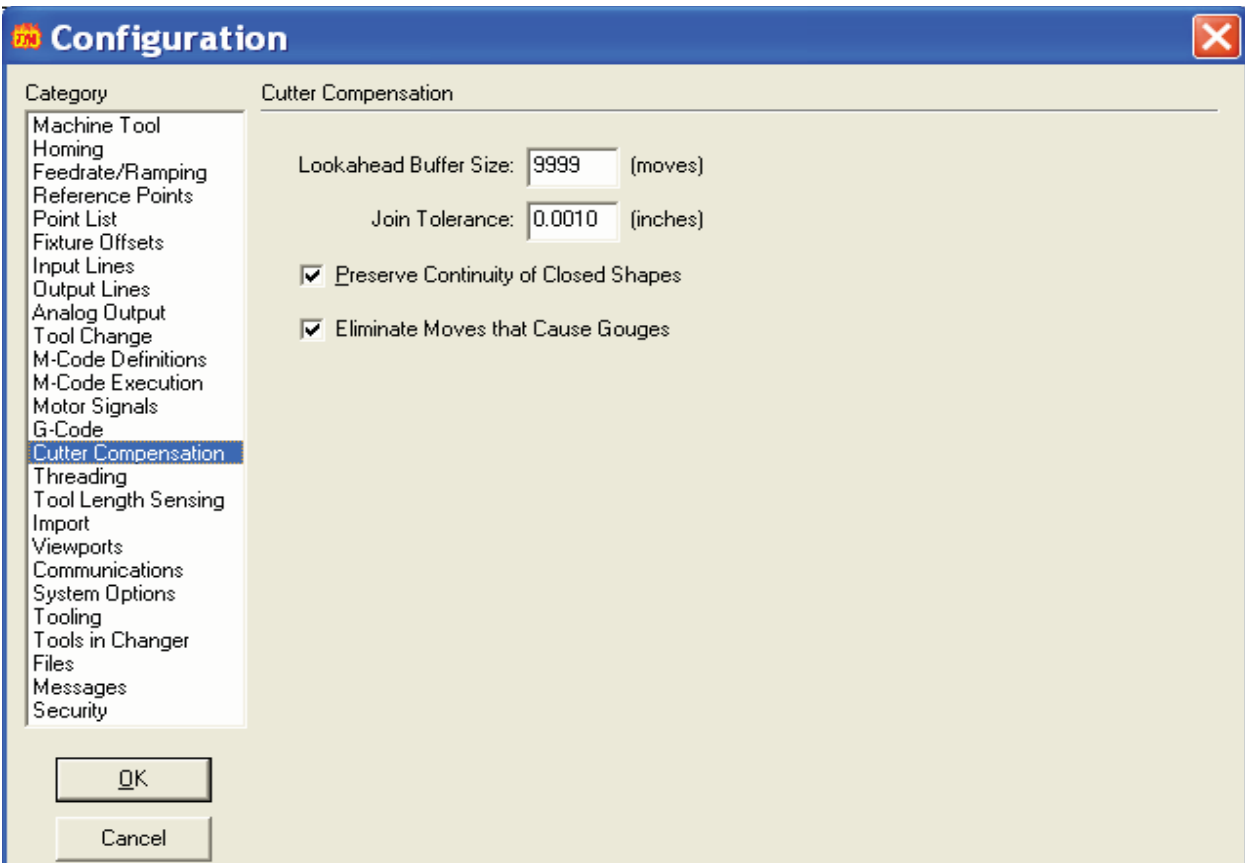
F Command Interpretation for Rotary Moves

- Linear Feedrate (Distance/Minute)
- Rotary Feedrate (Degrees/Minute)

Z Offset, 'A' Axis of Rotation to Prog. Zero: 0.0000 (inches)

OK

Cancel





### Configuration

Category: Tool Length Sensing

Use Tool Length Sensing

Initial M-Code: M

Sensor Position - X Machine Coord:  (inches)

Y Machine Coord:  (inches)

Raised Position - Z Machine Coord:  (inches)

Sensing Start Pos - Z Machine Coord:  (inches)

Sensing Limit - Z Machine Coord:  (inches)

Sensing Direction:

Sensing Feedrate:  (in/min)

Monitor Input Line:

Tool Length Formula:

### Configuration

Category: Import

**General**

Scale:   Optimize Toolpath

Decimals:   Line Numbers

Join Tol.:  (inches)

**Z Axis Coordinates**

Tool Up:  (inches)

Incremental Depth of Cut:  (inches)

Final Tool Down (Milling):  (inches)

Final Tool Down (Holes):  (inches)

**Program Zero Location**

X, Y of Import File: X:  (inches)  
Y:  (inches)

Lower Left of Toolpath

**Feedrates**

XY Feedrate:  (in/min)

Plunge Feedrate:  (in/min)

**Circles**

Mill All Circles

Drill Circles in Diameter Range:  
 to  (inches)

**Additional G-Code**

File Start:

File End:

Feature Start (Before Rapid):

Feature Start (After Rapid):

Feature End:

### Configuration

Category	Viewports		
	View On	Scale	Show Tool Diameter
<input type="checkbox"/> X	Fit Toolpath	No	
<input type="checkbox"/> Y	Fit Toolpath	No	
<input type="checkbox"/> Z	Fit Toolpath	No	
<input checked="" type="checkbox"/> XY	Fit Toolpath	Yes	
<input type="checkbox"/> XZ	Fit Toolpath	No	
<input type="checkbox"/> YX	Fit Toolpath	Yes	
<input type="checkbox"/> YZ	Fit Toolpath	No	
<input type="checkbox"/> ZX	Fit Toolpath	No	
<input type="checkbox"/> ZY	Fit Toolpath	No	
<input type="checkbox"/> XYZ	Fit Toolpath	No	
<input type="checkbox"/> XYZA	Fit Toolpath	No	

'A' Axis Parallel To: X Axis

OK Cancel

### Configuration

Category	Communications
	<p>Serial Communications</p> <p>Serial Port: COM 1</p> <p>Baudrate: 38.4 K</p>
	<p>Buffer</p> <p>General: 0.300 (sec)</p> <p>Jog: 0.300 (sec)</p>

OK Cancel

### Configuration

Category: System Options

**General**

Controller Type: Signal Generator

Signal Gen. Chip: Standard (VOT9M/N)

I/O Expansion Board Installed

System Units: English (inch)

Preview and Check G-Code Files

Automatically Reset G-Code Files

**Display Update Period**

DR0's: 0.250 (sec)

Viewports: 0.010 (sec)

**Advanced**

Timing Factor: 4

Start Delay: 0.250 (sec)

**Program Listing Box**

Display: Scrolling List

Show Line Numbers

OK Cancel

### Configuration

Category: Tooling

Tool #	Description	Diameter (inches)	X Offset (inches)	Y Offset (inches)	Z Offset (inches)
1		0.0000	0.0000	0.0000	0.0000
2		0.0000	0.0000	0.0000	0.0000
3		0.0000	0.0000	0.0000	0.0000
4		0.0000	0.0000	0.0000	0.0000
5		0.0000	0.0000	0.0000	0.0000
6		0.0000	0.0000	0.0000	0.0000
7		0.0000	0.0000	0.0000	0.0000
8		0.0000	0.0000	0.0000	0.0000
9		0.0000	0.0000	0.0000	0.0000
10		0.0000	0.0000	0.0000	0.0000
11		0.0000	0.0000	0.0000	0.0000
12		0.0000	0.0000	0.0000	0.0000
13		0.0000	0.0000	0.0000	0.0000
14		0.0000	0.0000	0.0000	0.0000
15		0.0000	0.0000	0.0000	0.0000
16		0.0000	0.0000	0.0000	0.0000
17		0.0000	0.0000	0.0000	0.0000
18		0.0000	0.0000	0.0000	0.0000
19		0.0000	0.0000	0.0000	0.0000
20		0.0000	0.0000	0.0000	0.0000
21		0.0000	0.0000	0.0000	0.0000
22		0.0000	0.0000	0.0000	0.0000
23		0.0000	0.0000	0.0000	0.0000

OK Cancel

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Tools in Changer

Changer Positions

Pos #	Tool
1	None
2	None
3	None
4	None
5	None
6	None
7	None
8	None
9	None
10	None
11	None
12	None
13	None
14	None
15	None
16	None
17	None
18	None
19	None
20	None

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Files

G-Code File Extension:

G-Code Filter:

Recent Files List Length:

