

Torchmate 2.09 Driver Software Configuration

These are my configuration setup pages for the 2.09 software. Each of your category windows should look exactly the same as these.

The screenshot shows the Torchmate software interface. The main window is titled "Torchmate - No G-Code File Open - Torchmate.stp - Torchmate.tlg". The interface includes a menu bar (File, Configuration, Controller, View, Coordinates, Help), a large coordinate grid with X and Y axes ranging from -100 to 50, and a "Program Coordinates" panel on the right showing X and Y values of 0.0000. Below the grid are control buttons for "G-Code", "Jog", "Point", "Home", and "Aux". A "Jump To Line" section contains "Cancel" and "Go" buttons. The "Run Time" is 00:00:00 and "To Go" is 00:00:00. The "Program Feedrate" is 0.0 and "% Override" is 100. The "Tool" is set to "None", "Offset" is X: 0.0000, Y: 0.0000, Z: 0.0000, "Comp" is "Positive (G43)", and "Diam" is 0.0000. The status is "Offline".

The screenshot shows the "Configuration" dialog box. The "Category" list on the left includes: Machine Tool, Homing, Feedrate/Ramping, Reference Points, Fixture Offsets, Input Lines, Output Lines, Custom M Codes, Motor Signals, G-Code, Cutter Compensation, Threading, Import, Viewports, Communications, System Options, Tooling, Files, and Messages. The "Machine Tool" category is selected. The "Resolution" table is as follows:

	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 *

The "Configuration" section shows "Machine Type" set to "Mill". "Use Axes" are checked for X, Y, Z, and A. "4th Axis Type" is set to "Rotary" and "Lathe Tool" is set to "Near Side". The "General" section shows "Pt. Move Linear Interp." set to "Yes" for X, Y, and Z, and "No" for A. "Backlash Comp" is checked, and "Backlash (inches)" is set to 0.0000 for all axes.

*Your table size will need to be reflected in the Axis Length for X and Y. 96" x 48" = 8' X 4' table.

Configuration

Category

- Machine Tool
- Homing**
- Feedrate/Ramping
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Homing

General

	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:

OK

Cancel

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Feedrate/Ramping

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	70.00	250.00	4000	0.000	70.00
Y	70.00	250.00	4000	0.000	70.00
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	200.00 (in/min)	1440.0 (* /min)

General

Max Arc Feedrate: (in/min)

Pt. Feedrate - Linear: (in/min)

Pt. Feedrate - Rotary: (* /min)

OK

Cancel

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Reference Points

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

OK

Cancel

Configuration



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Fixture Offsets

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

OK

Cancel

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Input Lines

Line #	Switch Function	Description	Wiring
1	Unused		N.C.
2	Unused		N.C.
3	Unused		N.C.
4	Unused		N.C.
5	Unused		N.C.
6	Unused		N.C.
7	Unused		N.C.
8	Unused		N.C.

Debounce Factor:

OK Cancel

Configuration

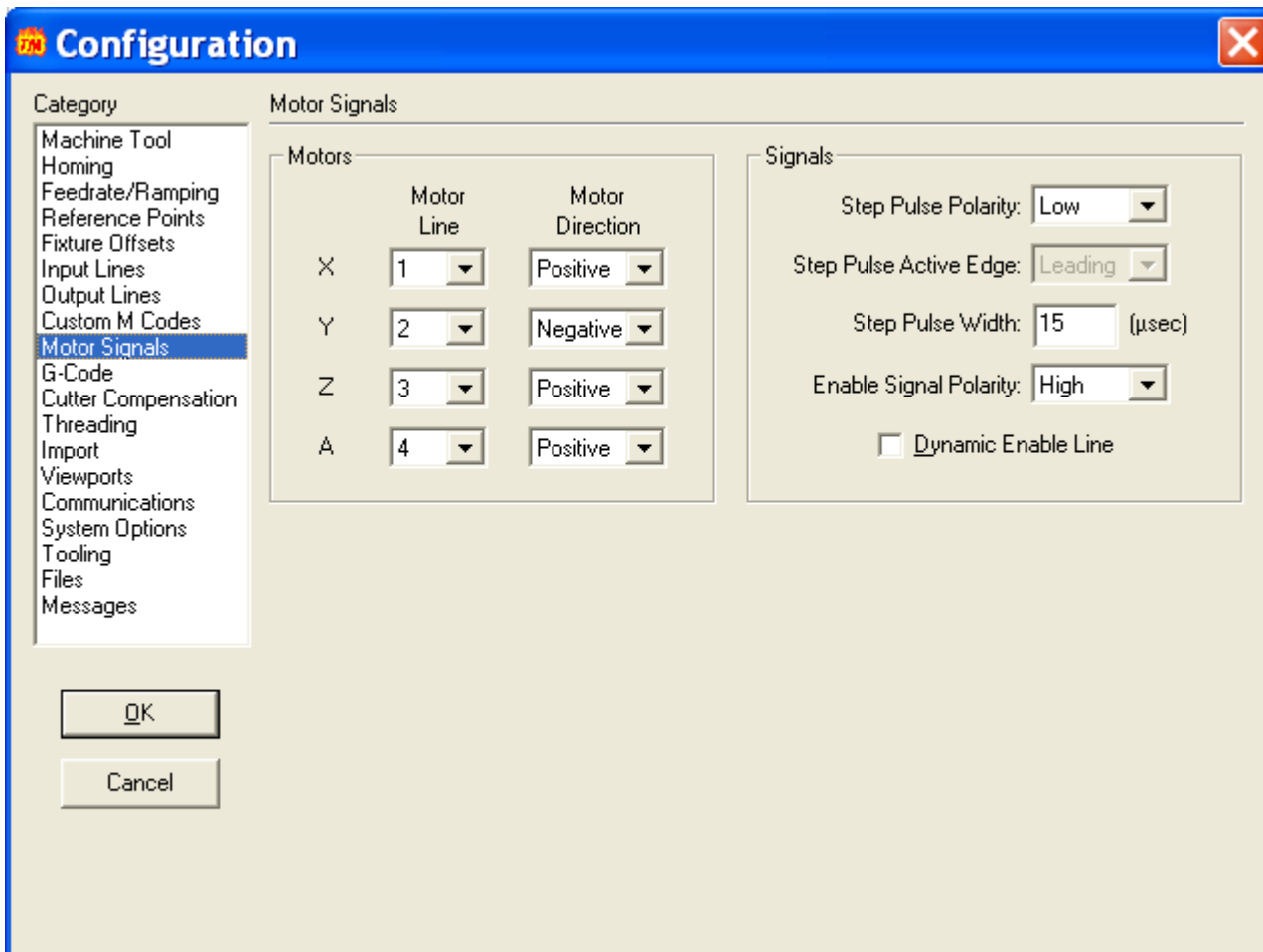
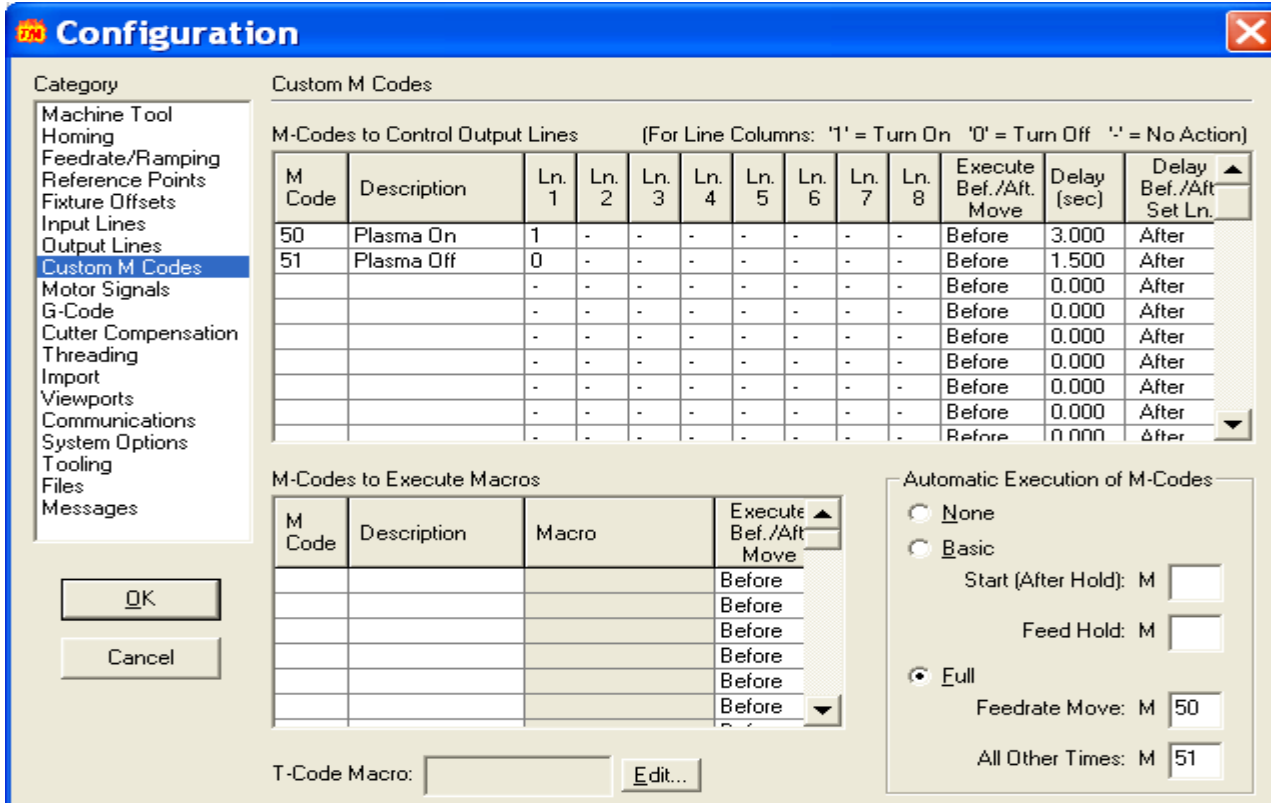
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Output Lines

Line #	Description
1	Plasma
2	
3	
4	
5	
6	
7	
8	

OK Cancel



You may change your Motor Direction settings from Positive to Negative, or visa versa, to allow your table to operate in the same direction as the JOG buttons are shown for X+, X-,Y+,Y- .

Configuration

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G-Code

General

- Ignore G54 - G59
- Message On M00 Program Pause

G73/G83 Retract Distance: (inches)

Helical Interpolation Accuracy: (inches)

M100 / M101

Debounce: (sec)

Timeout: (sec)

F Command Interpretation for Rotary Moves

- Linear Feedrate (Distance/Minute)
Z Offset, 'A' Axis of Rotation to Prog. Zero: (inches)
- Rotary Feedrate (Degrees/Minute)

OK Cancel

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Cutter Compensation

Lookahead Buffer Size: (moves)

Join Tolerance: (inches)

- Preserve Continuity of Closed Shapes
- Eliminate Moves that Cause Gouges

OK Cancel

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Threading

Hardware

Spindle Encoder Resolution: (pulses per rev)

Spindle Encoder has Index Channel

Toolpath

Minimum Depth of Cut: (inches)

Final Pass Depth of Cut: (inches)

Spring Passes:

OK

Cancel

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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:

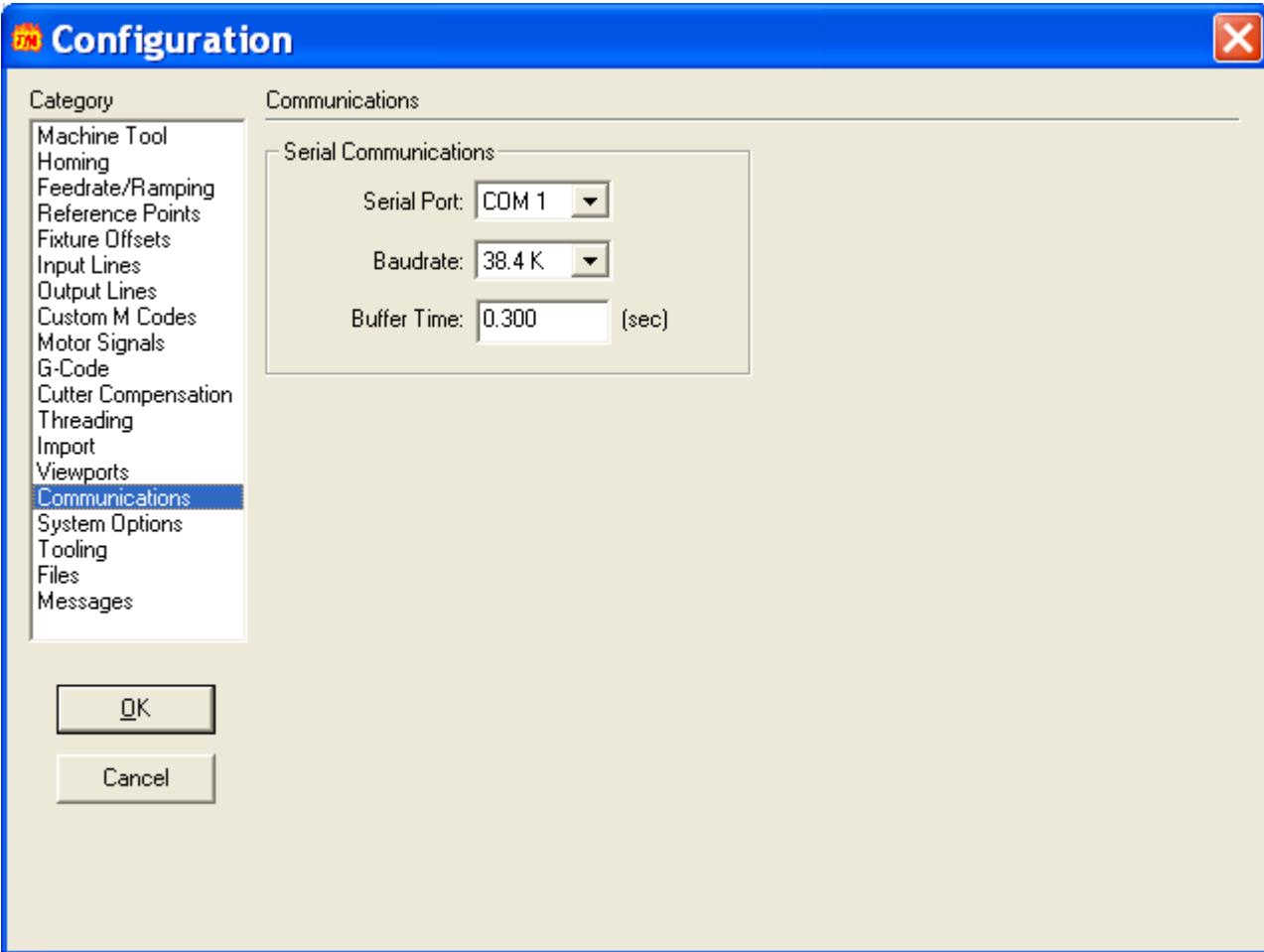
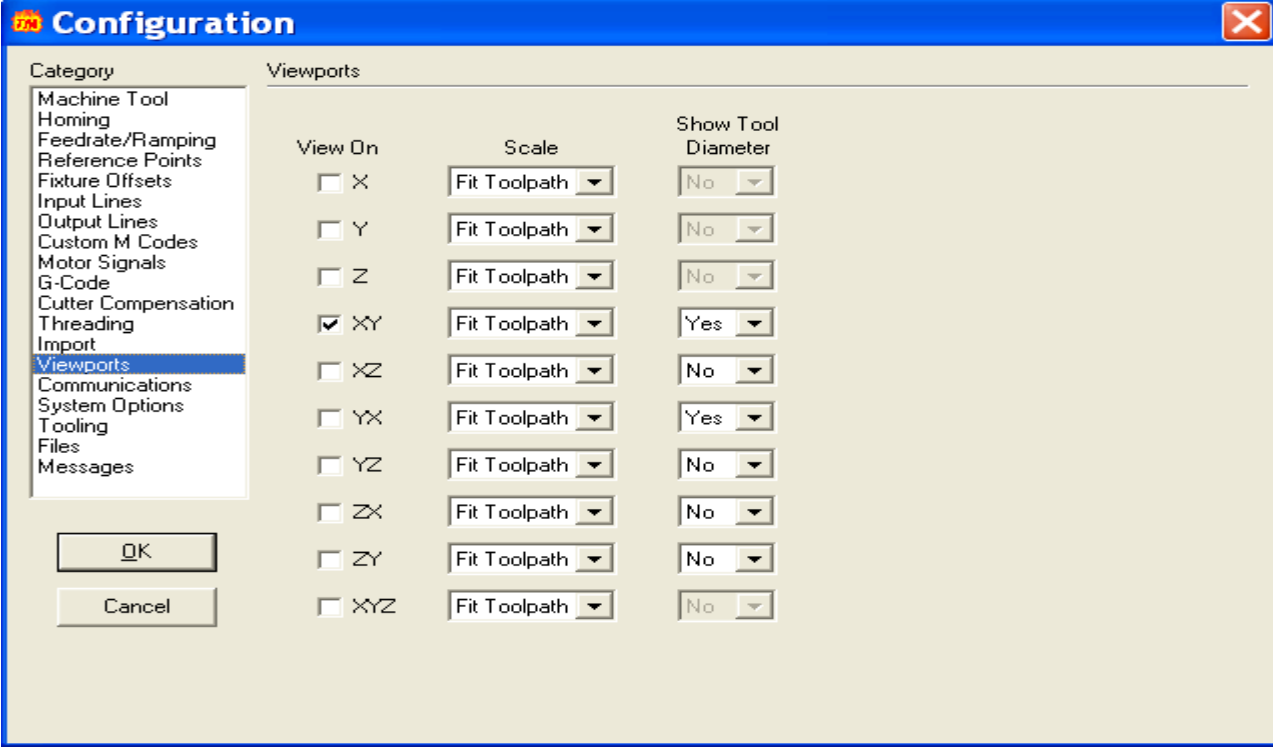
Feature Start (Before Rapid):

Feature Start (After Rapid):

Feature End:

OK

Cancel



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System Options

General

Controller Type: Signal Generator

Signal Gen. Chip: Standard (VOT9M/N)

I/O Expansion Board: None

System Units: English (inch)

Preview and Check G-Code Files

Automatically Reset G-Code Files

Display Update Period

DRO's: 0.250 (sec)

Viewports: 0.010 (sec)

Advanced

Timing Factor: 4

Fill Buffers During Load

Load Entire File when Opened

Start Delay: 0.250 (sec)

Program Listing Box

Display: Scrolling List

Show Line Numbers

OK

Cancel

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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
24		0.0000	0.0000	0.0000	0.0000

OK

Cancel

