Gcode Help 

Demo Information

Gcode Generating software.

Please register your shareware.

A R Clayton.
865 Fox Hollow Ln.
Salisbury NC.
28146-1808
USA

Fee $200.00 after 30 days use.

Email andrewc119@aol.com
Fax 704 630 9544

Cautions

Try to use only uppercase characters unless your machine specifically requires lower case.
Make any comments in lower case.

G03 is not treated the same as G3
Do not leave **spaces** when editing labels Unless you really want them.
All labels must match exactly to be interpreted, and are case sensitive.
To change G03 to G3 from the setup screen **Labels** scroll down to locate G03 and edit it to become G3.
Then save the INI file.

The system is based on using absolute G90 programming.
From the edit menu files may be converted back and forth between incremental and absolute.
More powerful functions such as rotate can only be performed on an absolute file.
A translate table can be activated to change strings of code as they are transmitted.
Also it can be used to make changes to the editor file.
This the the second implementation of the translate table.
This method translates the editor file using the table.
One use is to edit a file that was transmitted from the machine tool into Gcode.
The operator might have blocked out some lines using the / character.
All of these could be removed at once using the translate label.
It is rather like doing up to 30 search and replace commands at once.

Z Included

On setup window.
If not checked then then Z and related values are omitted.
If you get errors reading non Autocad DXF files or Autocad LITE try not checking

Overview

Requires Windows 95 or NT.

What Is Gcode, The Product?
Gcode is specifically designed for converting AutoCAD
drawings into G-Code programs for use with any 2-D or 3-D
Machine such as Wire EDMs, Laser Etchers, Flame cutting, Mills , Lathes etc.
Also GCode can be used for creating individual complicated toolpaths for 2-D and 3-D machines.
Gcode is a low cost opportunity for small independent
machine shops to convert their drawings into useful
programs for their CNC and DNC equipment
without the hassle of figuring out the geometry manually.

Simply draw the outline of the part to on a dedicated layer.

Then DXF out the file to a directory that Gcode is watching.

Gcode will capture the file, process and plot it.

If it is not quite what was expected simply repeat the process
with a new DXF file name.

A full function editor is provided up to 1,000,000 line capacity to fine tune the file adding tool offsets etc.

Numerous other options such as flipping the part, scaling, rotating are provided.
'Swap' allows the direction of travel to be changed.

File transfer both in an out is supported so this system
can be hard wired to a machine tool.

Graph line color changes for red = cutting to blue not cutting.

Files can be saved and retrieved across a network.

Standard ascii format is used for all files.

The program can be configured to support any axis combination.
The characters associated with a command can be changed at will.
See the Setup window Labels area.

Autocad

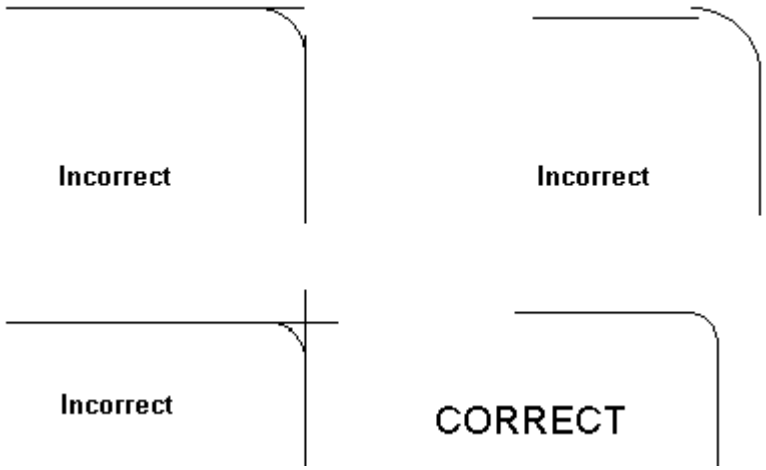
See also the other Supported Cad programs.

Before using Autocad to create the DXF file.
Check the default measuring system to make sure
that angles are measured ccw from 3 o clock.
That moving the cursor up and to the right from world 0,0
increases both X and Y values as positive numbers.
If you are going to produce a 3d path XYZ IJK then be sure to rotate
the axis only 90 degrees at a time.
Note : These are the default states from a new Autocad installation.

Supported Entities

Arc, Circle, Line, Solid, Trace and Polylines .
Your drawing must be created using only these entities.
Draw the object full size. On a layer the same name as the one
used in the Gcode Setup Window
(As shipped this was **FLAMECUT**).
Put any dimensions or text on another level.

Good Drawing Practice
All lines on a path must connect.
Spaces will cause Gcode to begin a new path.



Random Order

The drawing may be created in any order.
On any continuous path all lines must connect.
With no overlap or gap.

To prevent this use commands like Snap to intersect.
Once the DXF file has been processed then use
cut and paste to change the order of processing.
Use **Swap** to change the direction of travel.
For instance you might want to cut all the holes
in an object before cutting the outside path.

Guaranteed cutting order

Trace over the part shape from another level
in the order which you want the part to be processed.
For circles trace from the top center around.
For lines and arcs trace in the order desired.
Do not worry about the fact that Autocad draws arcs ccw.

DXF OUT

Select the command DXF OUT and enter the path to the
directory desired ,and a file name without an extension.
Press Enter to accept the default of 6 Decimal places.
Press ALT TAB and change to the Gcode Program
or program manager and run the Gcode Program.

If Gcode had been left running with **Scan Dir** Checked then
the file should already have been loaded and processed.
Provided Autocad sent the DXF file to same directory
that Gcode was watching.
Otherwise select File Open and load the DXF file.

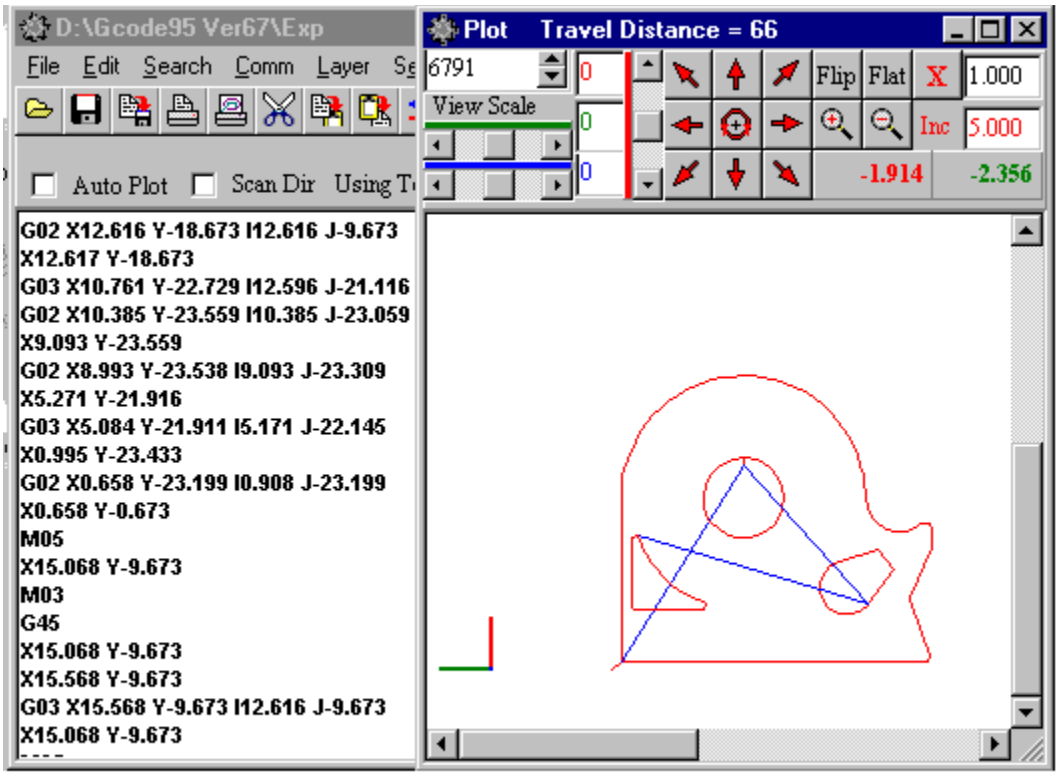
Setting X0 Y0 Z0
Pick a point that will become X0.000 Y0.000 Z0.000
By the commands Autocad / Menu / USC
If this is not done then World 0,0,0 will be used.
This point will become the machine Zero reference.

QuickStart

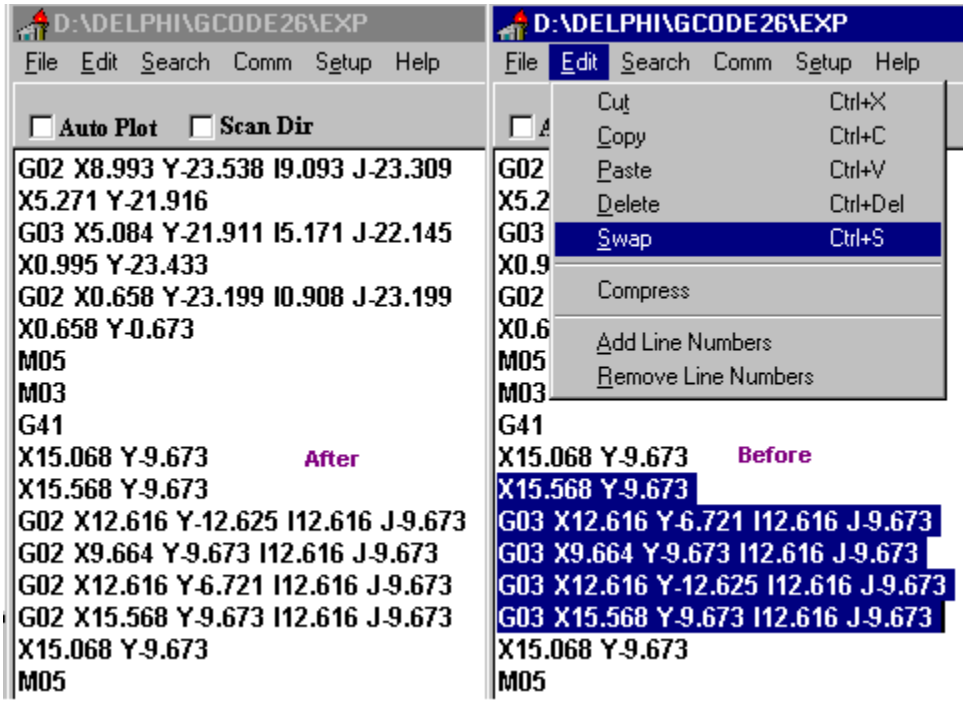
Select File,Open.
Highlight the file **Exp.dxf** as shown below.
Double click or press Enter.
The file will then be loaded and processed.
A small plot will appear in the right window.
Moving the mouse to the right window and clicking the
left button will re plot the file at the new mouse position.

Repeatedly clicking the Right mouse button will
single step through the file.
Plotting one line at a time and marking the position in the source file.

Notice the **Blue Lines** Produced by the moves between
M05 and M03.
These should be edited **manually** for lead in moves.
Cut on M03 and **Cut off M05** or those statments defined by you.
These moves are only created when **Circle Lead in + Edit Line** is
checked in the setup window.
The line of code between M05 and M03 is known as the edit line.
The short straight line at the top of the circle is the circle lead in.
Now select Setup Use another machine INI file and select Mill,ini.
and reload the file EXP.DXF .
Notice the different code between moves etc.
This is the result of two quite different INI files.


D:\Gcode95 Ver67\Exp
File Edit Search Comm Layer
Auto Plot
Scan Dir
G02 X12.616 Y-18.673 I12.616 J-9.673
X12.617 Y-18.673
G03 X10.761 Y-22.729 I12.596 J-21.116
G02 X10.385 Y-23.559 I10.385 J-23.059
X9.093 Y-23.559
G02 X8.993 Y-23.538 I9.093 J-23.309
X5.271 Y-21.916
G03 X5.084 Y-21.911 I5.171 J-22.145
X0.995 Y-23.433
G02 X0.658 Y-23.199 I0.908 J-23.199
X0.658 Y-0.673
M05
X15.068 Y-9.673
M03
G45
X15.068 Y-9.673
X15.568 Y-9.673
G03 X15.568 Y-9.673 I12.616 J-9.673
X15.068 Y-9.673
Plot
Travel Distance = 66
6791
View Scale
Flip
Flat
X
1.000
Inc
5.000
-1.914
-2.356

Swapping the direction of travel for block of code.
Note that the moves in and out are not highlighted.



Scale A spin box in the upper left corner of the plot window allow the view scale to be changed.
This has no effect on the source code file.
The Button **X** has next to it an edit window usually containing 1.000.
Increasing or decreasing this and the pressing the X Button Permenantly changes the size of the part.
Use this feature with caution.

Plot

Sliders Move the object about X0.00 Y0.00
By the INC amount default of 5.00.
arrows Represent up down left right along with
the diagonal arrows.
These allow you to move the starting point with
respect to the object.
S Spins the object **INC** degrees counter clockwise.
Changing the increment amount from 5.00 to -90.00 will
rotate 90 degrees clockwise.
X Multiplies the file by the scale factor to the right.
Ie X 1.100 would increase the object size by 10 %.
Ie X 0.900 would decrease the object size by 10 %.
Flip and Flop Turn the object over and change the travel
direction.
Often used for nesting odd shapes into existing material.

Warning all of the above functions change the source file.

Scale Either pressing the arrows or entering a number .
changes the scale of the plot.

Shift and an arrow key causes the plot to Pan 100 pixels
in the direction of the arrow.

Three scroll bars allow objects to be rotated about axis X Y Z .
Pressing the button **Flat** returns to a perpendicular view.

Position Displays the X Y Values in the same units as the source file.
Handy for testing if a component can be made from the available material.
The Plot window title bar will display the tool travel distance.
If the plot window size is increased the maximum X Y dims and area will become visible.
Note : The area and max dims do not take into account arcs that project out of the object.

Commands
Command line operation.
Gcode can be operated from the command line.
Gcode95.exe Filetoload Filetosave inifiletouse,ini

Filetosave and inifiletouse are optional.
If both Filetoload and Filetosave are present
then processing will proceed and gcode will close.

File

New Clears the editor for a new file.
Open a file dialog to load a file.
Save a file dialog to save a file.
Save As Same as save only asks for a file name.
Save As DXF Writes a Gcode file back as a simple vector file.
Print Text contents of editor to printer.
Print Window Prints the form including the border.
Print Plot at the present scale.
Print Setup selection and setup of printers.
Exit Closes the program.

Edit

Cut the highlighted text to the clipboard.
Copy the highlighted text to the clipboard.
Paste the contents of the clipboard at the cursor.
Delete the highlighted text.
Swap the travel direction of the highlighted text.
Compress Removes duplicate lines and blanks.
Add Line Numbers.
Remove Line Numbers.
Convert to Incremental G91.
Convert to Absolute G90.
Inch to Metric Multiplies by 25.4 .
Metric to Inch Multiplies by 0.03937 .

Misc **Move Starting Point Forward**
Highlite a complete tool path where the beginning meets the end
and click this option to move the staring point forward one line.
(Used to select a more suitable start).

Add Semi colons to line end
Remove Semi colons from line end
Sort Objects Acending.
The entitre file will be sorted to put the smallest complete paths.
(complete tool path where the beginning meets the end).
at the top. Often used in flamecutting to ensure that the perimeter.
cuts are made last. Also useful when cutting lettering as it is.
usually important for the middle of letters to be cut first.

Sort Objects Decending.

Exact opposite of above.

Largest Object to bottom only.

Like sort assending except only the longest path is moved.

Line Order N G M X Y Z I J K R.

If letters have been swapped this puts line in order.

Translate using table from setup window.

This the the second implementation of the translate table.
This method translates the editor file using the table.
One use is to edit a file that was transmitted from the
machine tool into Gcode.
The operator might have blocked out some lines using the / character.
All of these could be removed at once using the translate label.
It is rather like doing up to 30 search and replace commands at once.

Edit Translate Table shortcut to edit the table.

Search.

Find text.

Find Next Find the next occurrence.

Replace Search and replace text.

Comm

Go to Comm F6.

File

Send Transmit a file via a serial port to a remote machine.

Receive Receive a file from a remote machine.

Clear Clears the transmit and receive buffers of text.

Copy To Editor Transfers a received file to the editor.

Setup ini

Use Another Machine INI file.

Edit or create a new INI file.

Default Windows.

Toggle Hints on/off.

Print the Gcode manual.rtf Opens Wordpad and loads Manual.rtf.

About Displays the About screen .

Goto Gcode web site If possible a connection is made to the internet
taking you to the Gcode web site.

Zoom

Zoom Draws a box to selected part of a plot and re scales.

Previous Return to previous view.

Draw

Line

Clockwise Arc

Counterclockwise Arc

Clockwise Circle

Counterclockwise Circle

Stop Cut
Start Cut

All drawing is done with the mouse.

Grid

1/10
1/100
1/1000
1/4
1/8
1/16

Grid simply presets the scale.

Auto Plot

When checked any edit change is immediately plotted.

Scan Dir

Causes the program to constantly look for a new file
to arrive in the current directory.
Upon finding a new file it is loaded and plotted.
also flashes the path being scanned for a new file.
This is how **Autocad** can output a DXF file and
immediately have it processed and displayed.
See Scan Time Ms.

Vector Error
Example >> 5 Vector Error Deg X Line Comp.

This feature is used to reduce the size of a file when reading a DXF file only contains XYZ data such as those produced by scanning.(Renishaw and like).
If checked as in the above example all vector changes less than 5 degrees will be thrown out.
(Not recomended for dxf files containing arcs and circles).

Supported Programs
Autocad versions 10 to 14.
Autosketch only 2d Uncheck Z included.
DesignCad.
Corel Draw.
Turbocad.
Ashlar Vellum.

See the INI setup screen
as some programs require a checkbox to be turned on.

Sort
Sort Objects assending.

The entitre file will be sorted to put the smallest complete paths. (complete tool path where the beginning meets the end) at the top. Often used in flamecutting to ensure that the perimeter cuts are made last.
Also useful when cutting lettering as it is usually important for the middle of letters to be cut first.

Sort Objects decending.

Exact opposite of above.

Largest Object to bottom only.

Like sort assending except only the longest path is moved.

Transmit
From The **Comm** menu The Communications window will open.
Two Edit areas will be visible
Click in the lower window then any data typed will be sent
to the remote system
This is commonly used to initialize the remote system
In preparation for receiving a file.
Then Select **File Send**.
To transfer a copy of the main editors contents to the remote system.
If the output to tape checkbox has be checked then the left window will show a representation of the tape.
If the tape punch echo's back the character sent then garbage characters may be seen in the receive window since the parity bits setting will effect the visible ascii character.
See Ini for further details on communications settings.

Receive
From The **Comm** menu The Communications window will open.
Two Edit areas will be visible
Any text sent from a remote system will be displayed here.
It can be transferred to the main editor by selecting
File Copy to Editor.
See Ini for further details on communications settings.

Drawing
From The **Draw** menu The following items will show.
Line.
Clockwise Arc.
Counterclockwise Arc.
Clockwise Circle.
Counter Clockwise Circle.
Stop Cut M05 (or the command designated in the INI file).
Start Cut M03 (or the command designated in the INI file).

To draw a line.
Click on line then move the mouse pointer into the window and
left click at each line end.
Finally Right Click to terminate drawing or press Esc to end.

To draw an Arc.
Click on Arc then move the mouse pointer into the window and
position the cursor at the center point of the arc then left click
Now move to then ending point of the arc and click.

Note : Arcs and lines always start from the last point drawn.

To draw a Circle.
Click on Circle then move the mouse pointer into the window and
position the cursor at the center point of the circle then left click
Now move out to the desired radius of the circle and click.

Note : Circles are a seperate entity and can be drawn at any point.

The code generated by drawing will depend on settings in the INI file.
For example if circles have a lead in or if "R" is used instead of "I J".
See Ini for further details on commands settings.

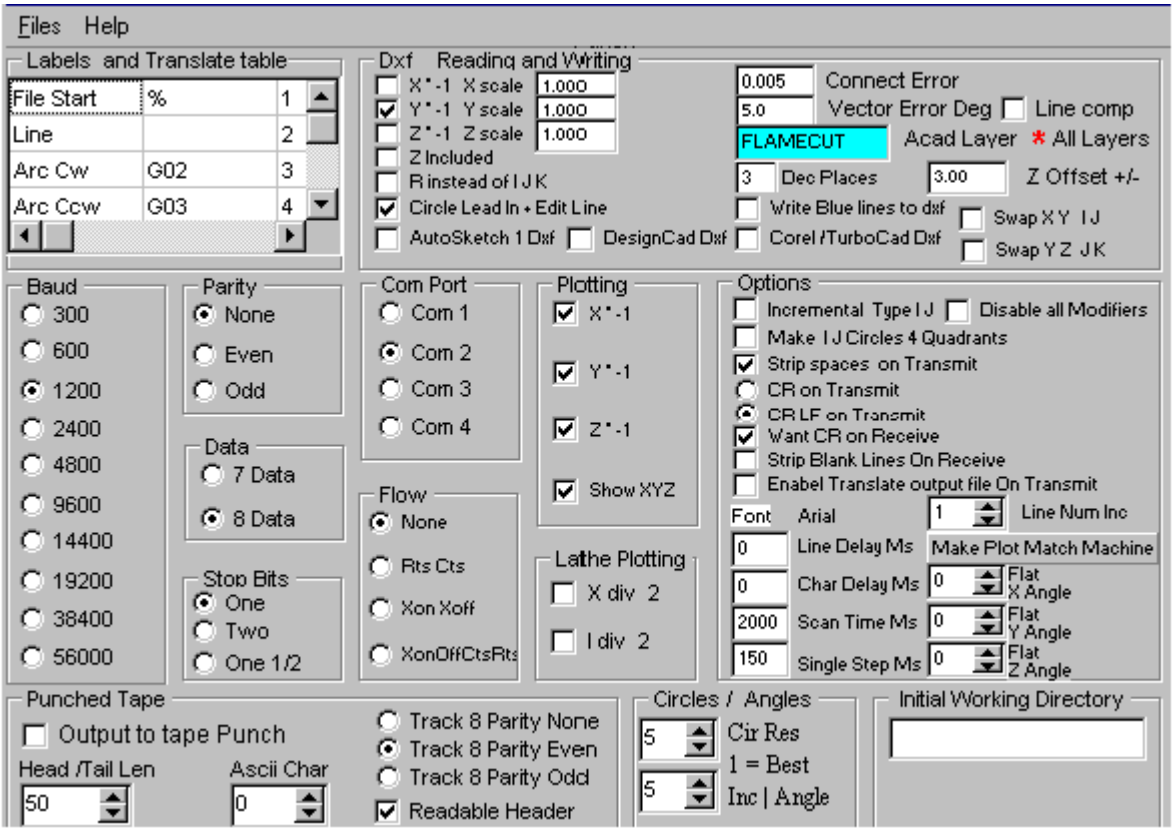
This tool is provided as a simple way to draw a very elementary shape
and is not intended to replace AutoCad.

Grid
Six predefined grid settings are provided.
1/10 1/100 1/1000
1/4 1/8 1/16
Selecting any one of these will adjust the scale proportionally.
Any desired increment can be achieved with a suitable scale.
Just remember the base scale of
1000 = 1.000 per increment of mouse movement.
 10000 = 0.100 and so on.

Ini Files.
Ini_Sample
The last used INI file is always loaded first.
If it can not be found then Gcode,ini is loaded.

Using the setup window create your own INI file then save it
Under a name of your choosing ie Bridgeport,ini .
Other INI files can be loaded by selecting File Load in the setup window.
Tip : In creating a new INI file leave the setup window open making changes
and repeatedly load a DXF file until the desired result is obtained.
Four sample INI files Named X+RightY+Down,INI and similar names show the four possible axis direction combinations.
One of these will probably form a good basis from which to build on.

Setup screen to create an INI file



Labels
A scroll box contains all the characters that will be added to a file as it is converted from DXF to gcode.
These are contained in the right hand column.
In the left column is a comment , change to suit.
Also the axis designations X Y Z.

These may be changed at will.
So that X could = Y etc.
Note do not switch axis letters in 3d setups where circular moves will be made in the Z K plane.
Line might = G01 or be left blank.
If your machine has Axis A B C D E.
Instead of X Y Z I J K Then simply substitute the letters.
And change any comments to be meaningful.
Load and compare the sample ini files provided.
or using Notepad print them out for comparison.

Dxf
Selections are provided for Multiplying X Y Z values by -1
as they are processed from the dxf file.
If checked then the values are negated.
A check box allows the inclusion or not of the Z axis.
A check box allows the selection or not of circle lead in and the insertion of a line of code between cut off and on.
This adds code for a lead in move inside all circles.

Connect Error
This is the allowable space between the end
of one line and the beginning of the next.
Any lines with a space above this value will be
considered to be the beginning of a new path.

Z Offset
A positive or negative value added to all Z Values
processed from the dxf file.

Decimal Places
The number of significant places that will be in the file.

Layer
The name of the Autocad layer to provide the gcode data.
If you wish, set this to 0 to use the default layer.

Z Included
If not checked then then Z and related values are omitted.
If you get errors reading non Autocad DXF files try not checking

Circle lead in + edit line
These moves are only created when **Circle Lead in + Edit Line** is checked in the setup window.
The line of code between M05 and M03 is known as the edit line.
The short straight line at the top of the circle is the circle lead in.

Options

Incremental Type I J

Two methods are used to define the center point of a circle.
One is where the move is expressed as an incremental move
from the last Absolute position,
another is True absolute from 00.
Select the appropriate one.
Note : Fanuc is usually Incremental.

Make I J circles 4 Quadrants

Some older machines could not make an arc above 90 degrees.

Cr on transmit

Carriage return characters will be sent at the end of each line.

Cr LF on transmit Carriage return and line feed characters
will be sent at the end of each line.

Cr on receive

Carriage return characters will be added to received lines.

Enable translate output file on transmit..n In the Labels and Tranlate table from line 30 on anything found.
in the left column will be translated to what is in the right column.
For example :

From	To	Line	
J0.000	J.	30	
J-0.000	J.	31	
K99	M66	32	
H100		33	Blank

Note this is a one way trip so if you read a translated file back it may not.
plot correctly.
The main purpose of this is to allow support for non standard machines .
such as Bandit controls.
For an example of its use see the 3dbanditi file.

Font

A new font type and size may be selected, the color will always default back to black.

Line delay Ms

A delay in 1/1000 sec after each line is sent.

Char delay Ms
A delay in 1/1000 sec after each character is sent.
Used to allow slow machines to process the data as it is sent.

Scan Time Ms
A delay in 1/1000 sec between searching the current directory
for a new file.
Too small a value can cause a slow system to **hang** if the
directorycontains a lot of files.

Single Step Ms
A Delay in 1/1000 sec between 125 and 1000
Used when the right mouse button is clicked
to single step plot a file.
The mouse cursor must be in the right hand plot window for
single step to be operational.

Tape Punch
Output to tape punch may be checked.
Select one of the three parity options.
These effect how the eighth track in punched.
A readable header can be checked.
This will punch the file name into the header of the tape.
The Header length and Ascii char can be selected in two spin edit
controls.
Note Normally the **LF Line feed** on transmit is not selected with tape
punches.

Working Directory
Can contain a path to the normal source of files.
Example **c;**.

Plotting
Options are provided to negate X and Y to show the same
orientation as the machine.
Circles / Angles.
Circle Res can be varied. The lower the value the better
the resolution. But more time is taken to plot.
step Angle affects how many degrees the object is rotated through.
with each click of a scroll bar.
Note the Button **Flat** returns to a perpendicular view.

Baud Rate
Should be set to match the machine connected to this computer.
A common setting is 9600 Baud 8 Data No Parity 1 Stop Bit.

Com Port
Select an available one to connect to the machine.Note : The Mouse usually uses com1.
Com2 to 4 is the normal selection

Notes
Temporary changes can be made to the Setup window without saving the INI file to observe the effect before committing the settings to file .
Use this method to add a new machine tool with different axis directions to those supplied.
See the files **Mill ini Lathe ini**.
Once developed save the ini file with a unique name .
Note : All ini files should be placed in the same directory as Gcode.

Sample Ini Files

"Lath,ini"
[Labels]
File Start=%
File End=M30
Arc Cw=G02
Arc Ccw=G03
Lead In=G45
Kerf Comp Left=G41
Absolute=G90
Incremental=G91
Begin Block=M03
End Block=M05
I Letter=I
J Letter=J
X Letter=X
Y Letter=Y
Z Letter=Z
XY Plane=
XZ Plane=
YZ Plane=
Line 2=
Line 3=
Line 4=
Line 5=

Line=
Kerf Comp Right=G42

Title0=File Start
Title1=Line
Title2=Arc Cw
Title3=Arc Ccw
Title4=Krf CmpLeft
Title5=Krf CmpRght
Title6=Absolute
Title7=Incremental
Title8=Start Cut
Title9=Stop Cut
Title10=File End
Title11=Lead in
Title12=SPARE
Title13=R Letter

"Mill,ini"
[Labels]
File Start=%
File End=M30
Arc Cw=G02
Arc Ccw=G03
Kerf Comp Left=G41
Lead In=M07
Absolute=G90
Incremental=G91
Begin Block=M08
End Block=G00
I Letter=J
J Letter=I
X Letter=Y
Y Letter=X
Z Letter=Z

Line=G01
Kerf Comp Right=G42

Title0=File Start
Title1=Line
Title2=Arc Cw
Title3=Arc Ccw
Title4=Comp Left
Title5=Comp right
Title6=Absolute
Title7=Incremental
Title8=Cool off
Title9=Rapid
Title10=File End
Title11=Cool On
Title12=SPARE
Title13=R Letter

Title14=I Letter
Title15=J Letter
Title16=K Letter
Title17=X Letter
Title18=Y Letter
Title19=Z Letter
Misc=
K Letter=K
R Letter=R
XY Plane=
Title20=XY Plane
XZ Plane=
Title21=XZ Plane
YZ Plane=
Title22=YZ Plane
Trans123=
Trans023=
Trans124=
Trans024=
Trans125=
Trans025=
Trans126=
Trans026=
Trans127=
Trans027=
Trans128=To
Trans028=Trans From
Trans129=I.
Trans029=I0.000
Trans130=I.
Trans030=I-0.000
Trans131=J.
Trans031=J0.000
Trans132=J
Trans032=J-0.000
Trans133=
Trans033=G02
Trans134=
Trans034=
Trans136=Z.
Trans036=Z0.000
Trans137=Z.
Trans037=Z-0.000
Trans138=
Trans038=M07
Trans139=

Title14=J Letter
Title15=I Letter
Title16=K Letter
Title17=X Letter
Title18=Y Letter
Title19=Z Letter
Misc=
K Letter=K
R Letter=R
XY Plane=G17
Title20=XY Plane
XZ Plane=G18
Title21=XZ Plane
YZ Plane=G19
Title22=YZ Plane

Trans039=
Trans140=
Trans040=
Trans141=
Trans041=
Trans142=
Trans042=
Trans143=
Trans043=
Trans144=
Trans044=
Trans146=
Trans046=
Trans147=
Trans047=
Trans148=
Trans048=
Trans149=
Trans049=
Trans150=
Trans050=
Trans151=
Trans051=
Trans152=
Trans052=
Trans153=
Trans053=
Trans154=
Trans054=
Trans156=
Trans056=
Trans157=
Trans057=
Trans158=
Trans058=
Trans159=
Trans059=
Trans160=
Trans060=
Trans161=
Trans061=
Trans162=
Trans062=
Trans163=
Trans063=
Trans164=

Trans064=
Trans166=
Trans066=
Trans167=
Trans067=
Trans168=
Trans068=
Trans169=
Trans069=

[Baud]	[Baud]
300=0	300=0
600=0	600=0
1200=1	1200=0
2400=0	2400=0
4800=0	4800=1
9600=0	9600=0
19200=0	19200=0
14400=0	14400=0
38400=0	38400=0
56000=0	56000=0
[Data]	[Data]
7 Bits=0	7 Bits=1
8 Bits=1	8 Bits=0
[Parity]	[Parity]
None=1	None=0
Even=0	Even=1
Odd=0	Odd=0
[Stop Bits]	[Stop Bits]
None=0	None=0
One=1	One=0
Two=0	Two=1
OneHalf=0	OneHalf=0
[Com Port]	[Com Port]
Com 1=0	Com 1=0
Com 2=0	Com 2=1
Com 3=1	Com 3=0
Com 4=0	Com 4=0
[Plotting]	[Plotting]
X*-1=1	X*-1=1
Y*-1=1	Y*-1=0

Z*-1=1	Z*-1=0
ShowXYZ=1	ShowXYZ=0
Cirres=5	Cirres=5
angstep=5	angstep=5
[Dxf]	[Dxf]
Circle Lead In=1	Circle Lead In=1
Z Include=0	Z Include=1
X*-1=0	X*-1=0
Y*-1=1	Y*-1=0
Z*-1=0	Z*-1=1
Z Offset=0.00	Z Offset=3.00
Layer=FLAMECUT	Layer=OBJ1
Decimal Places=3	Decimal Places=4
Connect Error=0.005	Connect Error=0.001
[Options]	[Options]
Bridgeport IJ=0	Bridgeport IJ=1
Strip Spaces=1	Strip Spaces=1
Cr=0	Cr=1
CrLf=1	CrLf=0
Line Del=0	Line Del=0
Char Del=0	Char Del=0
WantCr=1	WantCr=1
Scan Time=2000	Scan Time=5000
SingleStep Del=150	SingleStep Del=150
UseR_instead=0	UseR_instead=0
IJFOURQUAD=0	IJFOURQUAD=1
[Flow]	[Flow]
None=1	None=0
Rts=0	Rts=1
Xon=0	Xon=0
[InitialDir]	[InitialDir]
Initial Dir=c:	Initial Dir=
[Tape]	[Tape]
TapeYes=0	TapeYes=1
None=0	None=0
Even=1	Even=1
Odd=0	Odd=0
ReadableHeader=1	ReadableHeader=1
HeaderLen=20	HeaderLen=50
HeaderChar=0	HeaderChar=0
[Font]	[Font]

Name=Arial Name=Arial
Size=12 Size=9