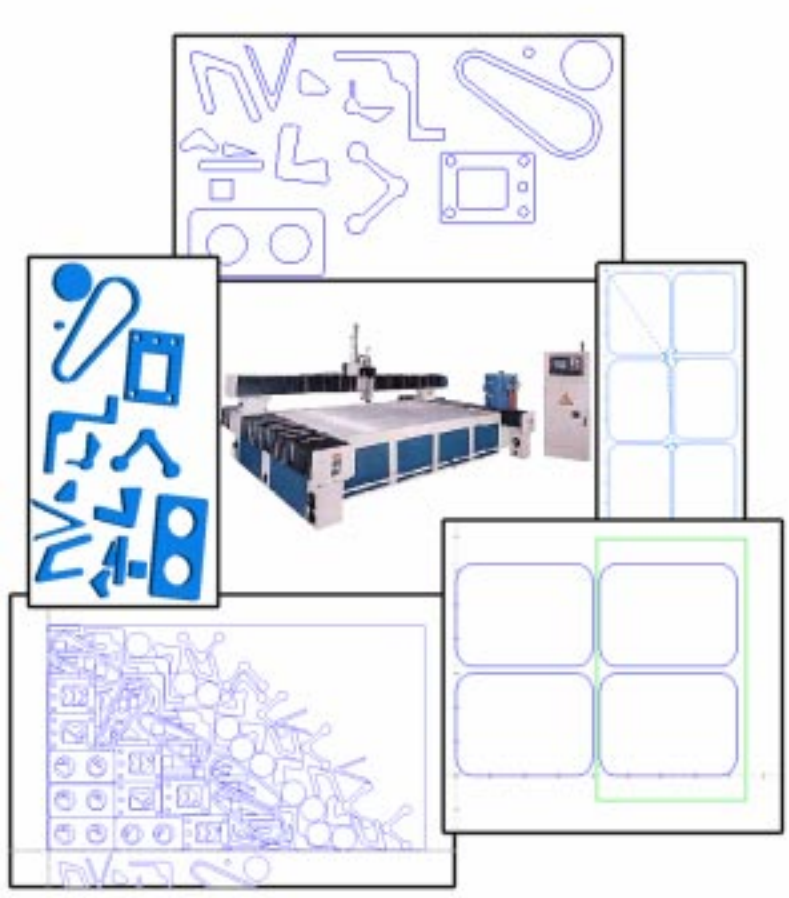
OneCNC

2000 Series

Manufacturing Software



Tutorials

For Profiler

Contents

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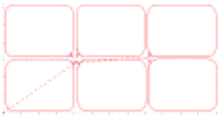
Version 1.02

(rev 28-6-01)

Profiler Tutorial 1

Use Profiler Cutting Functions

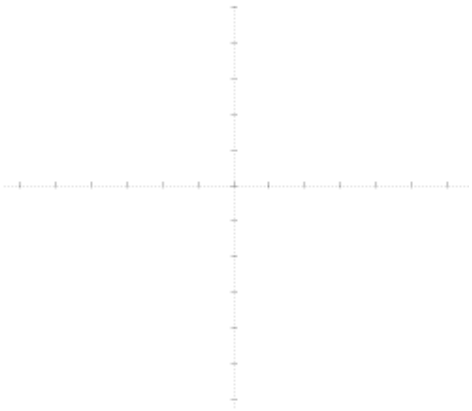


Note: This help uses mm values.

Step 1. Create a New Drawing


Click the **new drawing icon** on the **standard toolbar**.

You should have a blank drawing ready to draw your wireframe.



Now to make sure the NC file is clear


Click the **new NC icon** on the **NC editor toolbar**.

Click **Yes** or **No** to save your file.

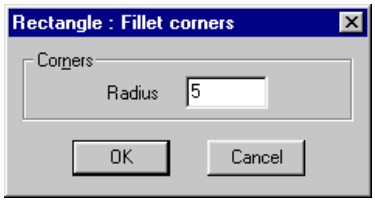
Step 2. Create a Design

The center of the axis is X0 Y0 and will also be X0 and Y 0 on the machine.

 Click the **line icon** on the **menu toolbar**.

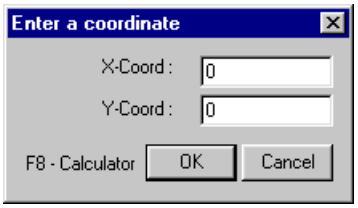
 Click the **rectangle icon** on the **line menu toolbar**.

Enter the following details and click **OK**.



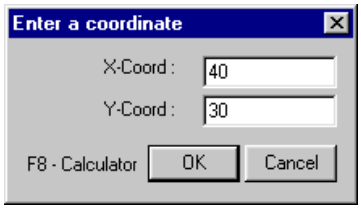
 Click the **coordinate icon** on the **position dialogue**.

Enter the following details and click **OK**.

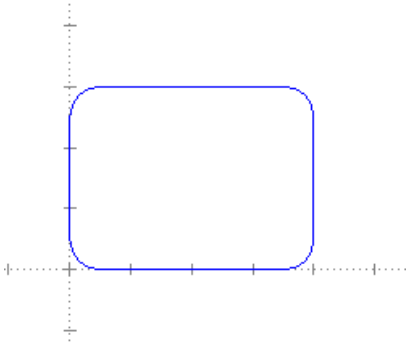


 Click the **coordinate icon** on the **position dialogue**.

Enter the following details and click **OK**.



A rectangle will be created the same as the one shown below.



Click **cancel** to terminate the rectangle function.

 Click the **select all entities icon** on the **selections toolbar**.

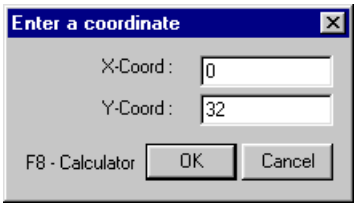
All the entities will turn red.

 Click the **move/copy/scale icon** on the **selections toolbar**.

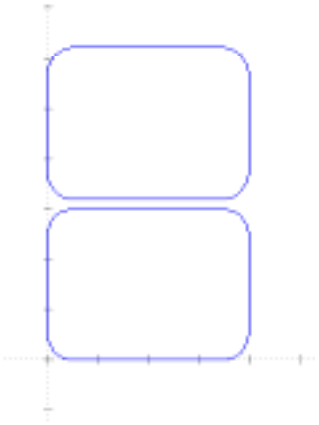
Enter the following details and click **OK.**

 Click the **incremental icon** on the **position dialogue**.

Enter the following details and click **OK.**



Your drawing should now look as follows:



 Click the **select all entities icon** on the **selections toolbar**.

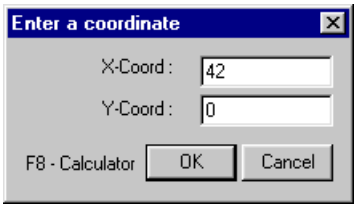
All the entities will turn red.

 Click the **move/copy/scale icon** on the **selections toolbar**.

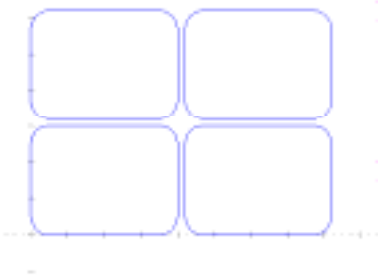
Enter the following details and click **OK.**

 Click the **incremental icon** on the **position dialogue**.

Enter the following details and click **OK.**



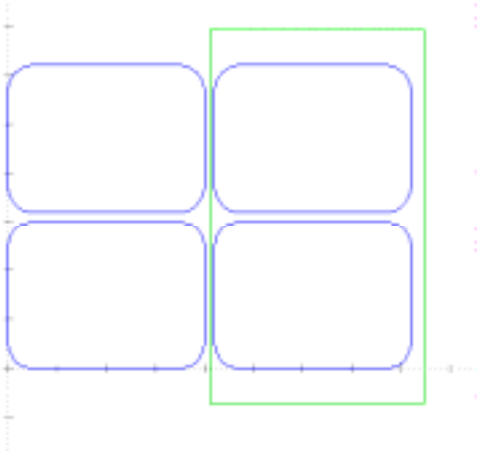
The drawing will now look as follows:



Now to select the two end rectangles to create another copy

 Click the **select region icon** on the **selections toolbar**.

Now select the end rectangles.



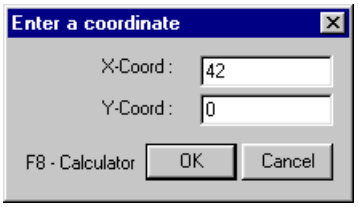
The two entities will turn red.

 Click the **move/copy/scale icon** on the **selections toolbar**.

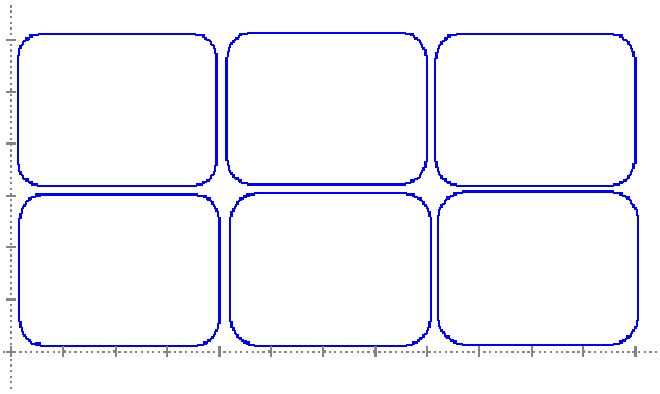
Enter the following details and click **OK.**

 Click the **incremental icon** on the **position dialogue**.

Enter the following details and click **OK.**



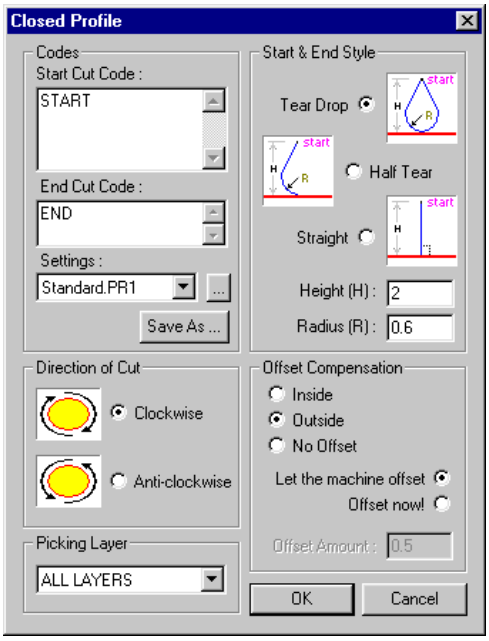
Your drawing will now look as follows:



Step 3. Cutting the Design

 Click the **closed profile icon** on the **NC CAM toolbar**.

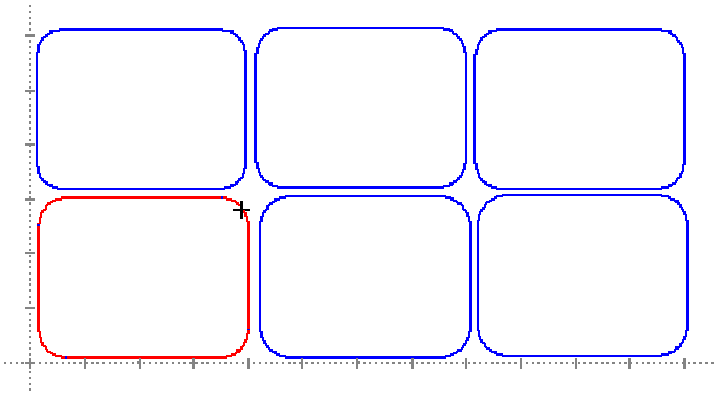
The following dialogue will appear.



The start code : set to the correct code for your machine (this varies from machine to machine)
The end code: set to the correct code for your machine (this varies from machine to machine)
Set the height to 2 (this is the height of the tear drop)
Set the radius to .6 (this is the radius of the teardrop)
Set Offset Compensation to Outside (this sets for outside cutting of the parts)
Set let machine offset active, this sets the machine to handle the offset. (this sets the machine control to do the offsetting)
Set the direction of the cut to clockwise (all cutting will be in a clockwise direction).

Click **OK**

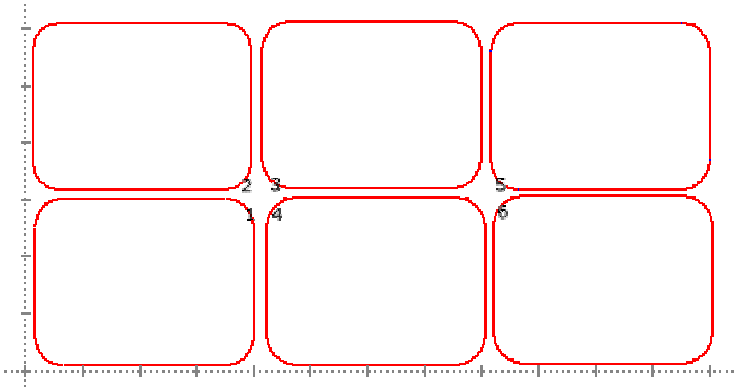
Then select the **first border** by positioning the mouse at this location then click the **left mouse button**.



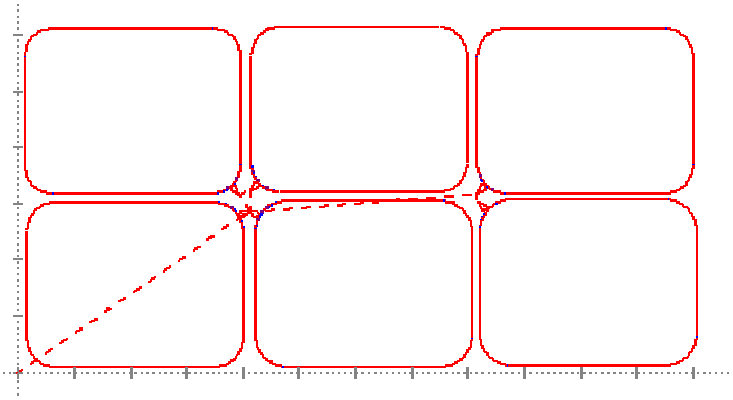
Then select the **next border** with the **left mouse button**.

Then the **3rd 4th 5th** and **6th** part.

As a guide we show the approx positions to pick the part as shown using numbers.



After they are all selected then click the **right mouse button** and they will be all cut.



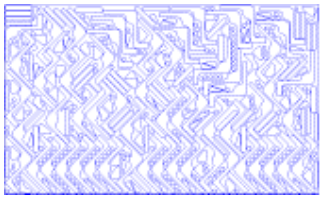
The dashed line represents the rapid moves.

The code has now been automatically created and added to the NC editor.

Providing you have the post correctly set the file is ready to go to the machine.

Profiler Tutorial 2

Use Nesting 2D Nest and Cut Function



This tutorial will show how to nest some parts and cut them.

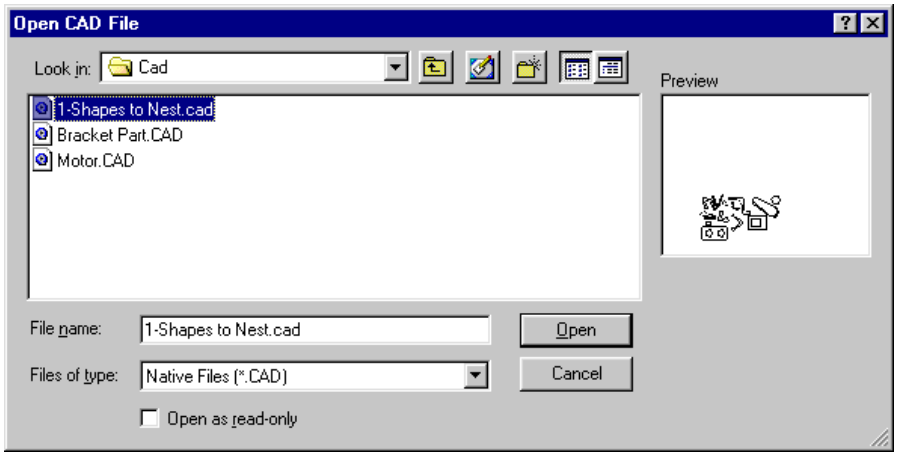
Note: This help uses mm values.

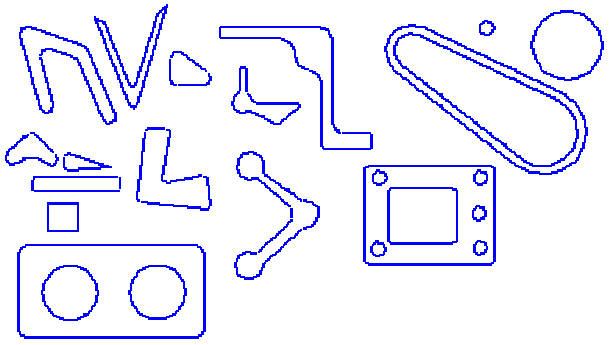
Step 1. Opening a Drawing


Click the **open drawing icon** on the **standard toolbar**.

The following dialogue will appear:

Click on **1-Shapes to Nest.cad** and click **open.**



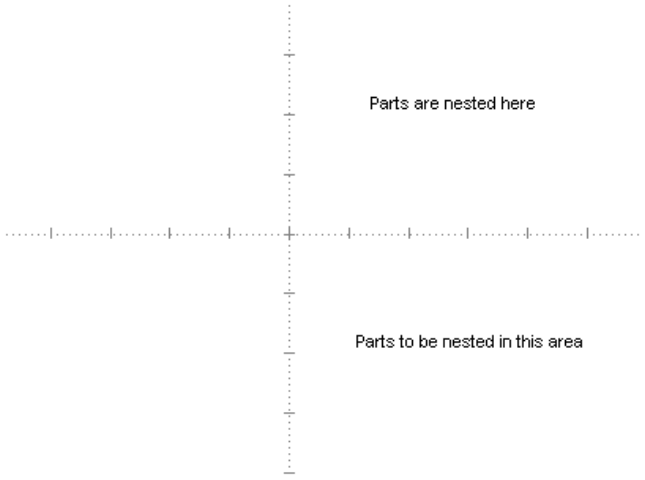


Now to make sure the NC file is clear


Click the **new NC icon** on the **NC editor toolbar**.

Click **Yes** or **No** to save your file.

Step 2. Nesting the Parts



The shapes to be nested should be drawn on the screen below the cursor line as the nesting of the sheet will be in the + X and + Y axis of the screen.

When you draw shapes for nesting they must be a closed boundary or it will produce errors when nesting.

To check if your shapes are all closed boundary:

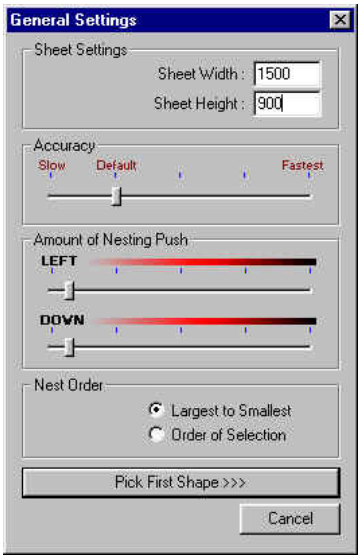

Click the **show valid borders icon** on the **NC CAM toolbar**.

They will turn red if they are closed boundaries so it is a good idea to check the borders before nesting. If those shapes have islands or holes they must also be closed boundaries. If the holes or islands are large enough it will nest parts within those holes or islands.

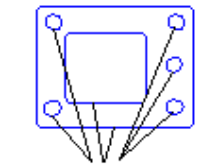

Click the **nest icon** on the **NC CAM toolbar**.

The following dialogue will appear.

Set the following and click **pick first shape** to start selecting your shapes



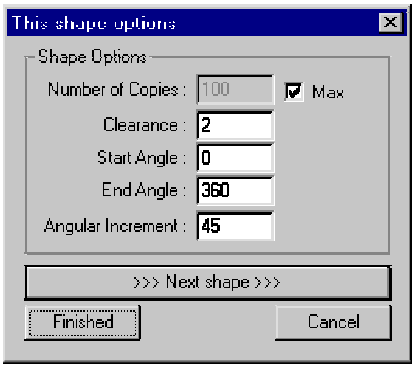
Click **first shape** to be nested by selecting it with the mouse cursor touching the boundary and clicking the left mouse button and it will turn red. if there are any islands also pick those and when you have picked the shape click the **right mouse button** and the next dialogue will appear.



Select all boundries

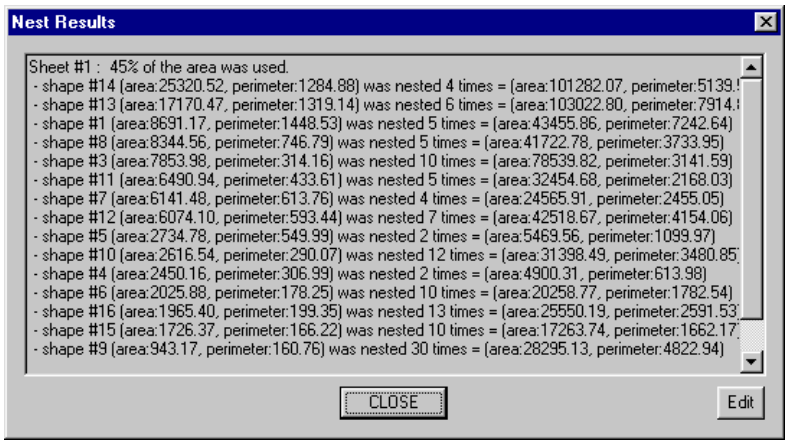
The following dialogue will appear:

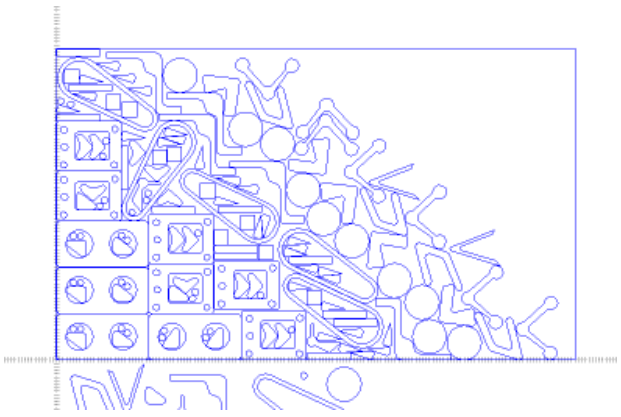
Enter your own settings changing the number of copies for different shapes in order to view the nesting function.



when all shapes are selected and setting set click on **finish** and the parts will be nested.

The following dialogue will appear with information you may need about the nest.



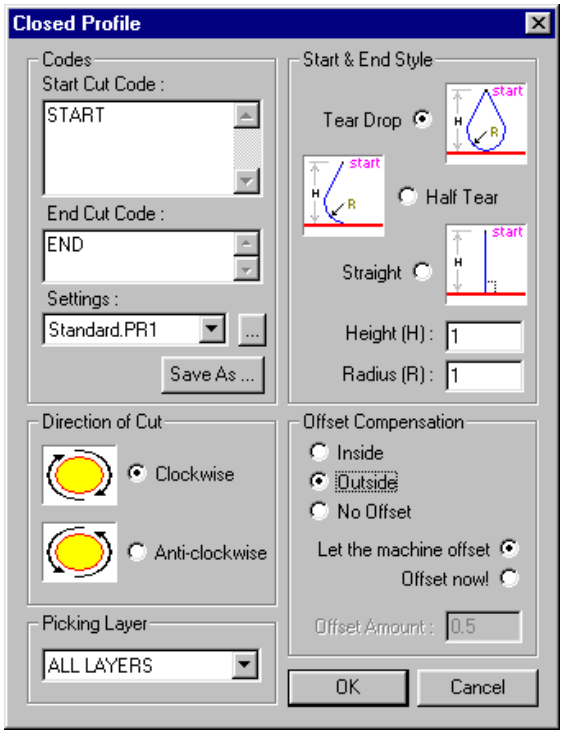


Step 3. Cutting The Nested Parts

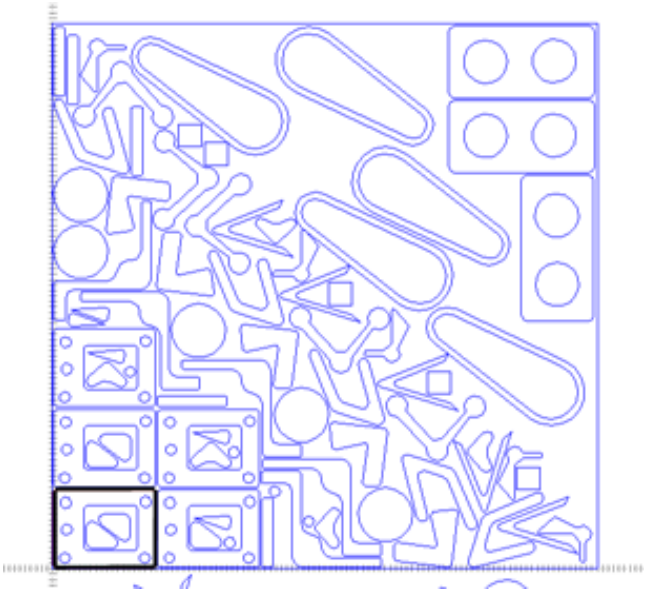
 Click the **closed shape icon** on the **NC CAM toolbar**.

The following dialogue will appear.

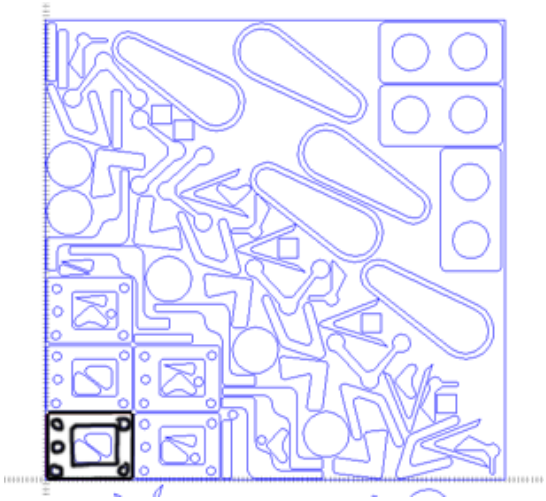
Enter the following values and click OK



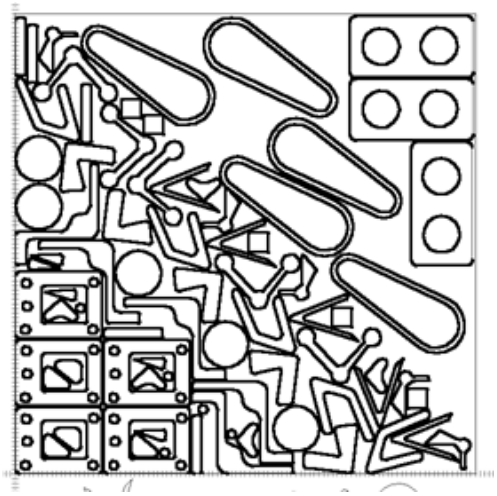
Select the bordedr of the first shape.



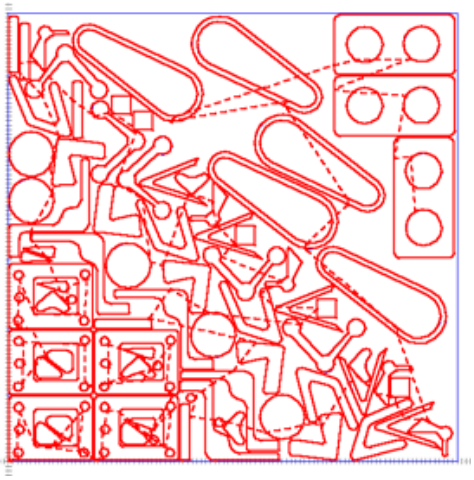
Now select the rest of the shape.



Continue selecting shapes noting that the position you click on to select the shape will be the starting point for the profiler.



Click the **right mouse button** to complete the toolpath.



The toolpath is now created and placed in the NC editor.