

This Macro creates Offset Geometry from a DeltaCAD geometry chain.

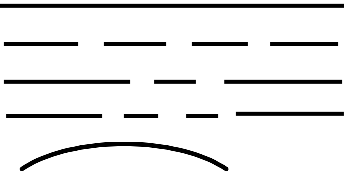
It has options to trim or not to trim the created offset geometry to the next object.  
Is also has an option to delete an unwanted offset geometry.

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Creating Offset Geometry:

Start by creating a layer for your part geometry and make it the current layer.

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Geometry chain objects are created by using Lines and Arcs.  
The following types are supported:

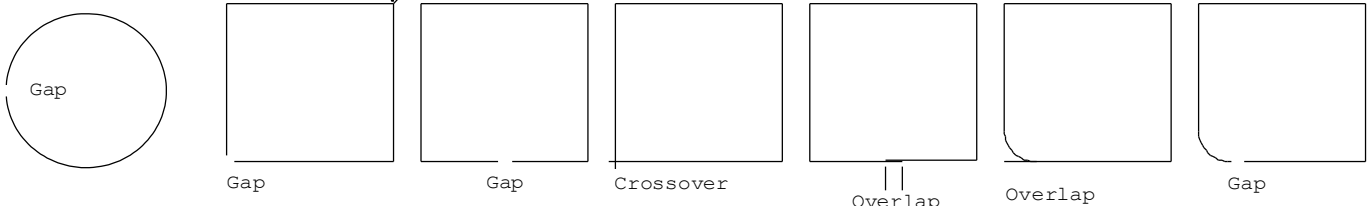
- \* Solid Lines
  - \* Hidden Lines
  - \* Center Lines
  - \* Phantom Lines
  - \* Solid Arcs
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Rules for drawing Geometry chain objects for:

- \* Put all objects for ONE geometry chain on ONE layer.
- \* Each object must precisely meet the next object by at least .0001
- \* Do not have more than two objects with the same layer connecting at the same intersection.
- \* The start and the end of a Geometry chain can not connect.  
There needs to be a gap or overlap or crossover of at least .001 See example below.

Do not have more than two entities connecting at the same intersection on the same Layer.



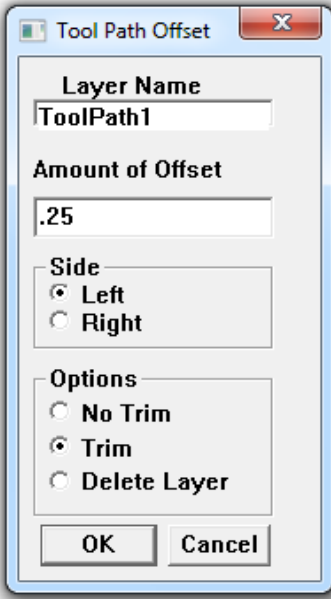
Examples of Gaps, Crossovers and Overlaps

- \* Geometry chain objects can start with either a line or an arc.
- \* Objects can be drawn in any order, width and color.
- \* There is no look-ahead, so there can be interference where Offset Geometry objects could crossover itself. These will have to be edited after the Offset Geometry objects are created.
- \* Full Circles needs to have a gap at least .001
- \* Inside Arcs with a radius smaller than the offset will be ignored.

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Running the Macro:

1. From the DeltaCad Select tab select the starting object of the geometry chain (arc or line).  
Select only one object on one end of the original geometry chain.
2. Start OffsetGeometry macro.

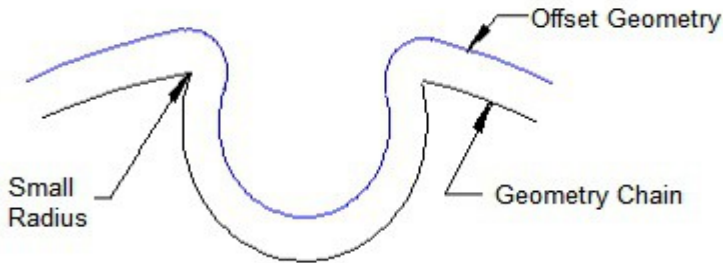


Layer Name box displays the layer selected.  
(Changing the layer name in the box has no effect, it is for display only.)

3. Amount of Offset: Enter the distance to offset.
4. Select side Left or Right. (This is looking in the direction from the starting object to the next object.)
5. Options:
  - No Trim: Creates the geometry offset without connecting each object.
  - Trim: Creates the geometry offset by connecting each object.
  - Deletes Layer: Deletes all objects and layer name that has the same layer name of a selected object.  
This will delete your original chain if you don't select an object in the unwanted chain.
6. OK ( Creates the geometry offset with a layer name combined with L or R and amount of offset.)  
Example : ToolPath1-L.25  
or Deletes the selected layer.

TIPS:

- \* If you are going to use your part drawing to create your geometry offsets, I would suggest making a copy of it first.
- \* In places where the intersection of two geometry offset objects do not meet, the geometry offset will not be able to trim properly.  
But if you put a small radius (.001-.010) in the corner of the original geometry, the geometry offset will arc around the corner as shown in the drawing below.



- \* When rerunning the Macro with the same Geometry chain, offset amount, and side, the old geometry offset will be deleted.
- \* Examples of Left, Right, Trim, and No Trim options: (arrows shown below not needed)

