


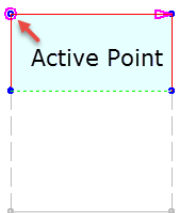
FreeForm – Active Point


Active Point lists properties of the current active point, if there is one. Points in the active section may be selected, as the active point, by left or right clicking the point, or by left or right clicking the line joining them to the next point in their machine step.

The active point is indicated by a "bullseye" , and the other end of the joining line is decorated with an arrowhead. The two editable fields display the local coordinates of the point within its section, and can be used to move it elsewhere. There is also a context menu command for this purpose: **Drag Point G** (which offers the additional ability to move the point using global coordinates).

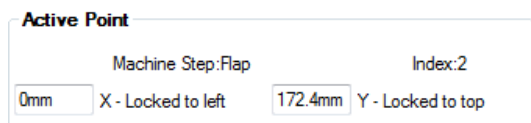


Notes on Active Point



Right click on the Active Point  to bring up its context menu with a list of options and operations that can be performed on it.

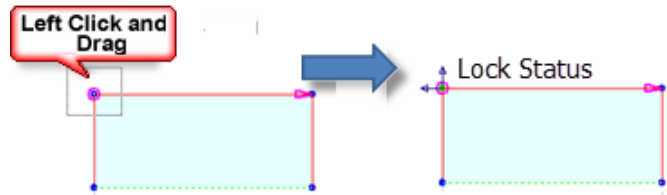
The Machine **Step** field displays the name of the current shape you are working with, which in this example is "Flap".



The **Index** field shows the number of the active point e.g. "2". Points are numbered in a clockwise direction starting with the one attached to the left end of the hinge line and ending at the right end.

The next 2 boxes show the exact (x, y) position of the point *in relation* to the container section and their lock status.

If you left click and drag a box around the active point, or a group of points, the locking status will be shown by arrows.



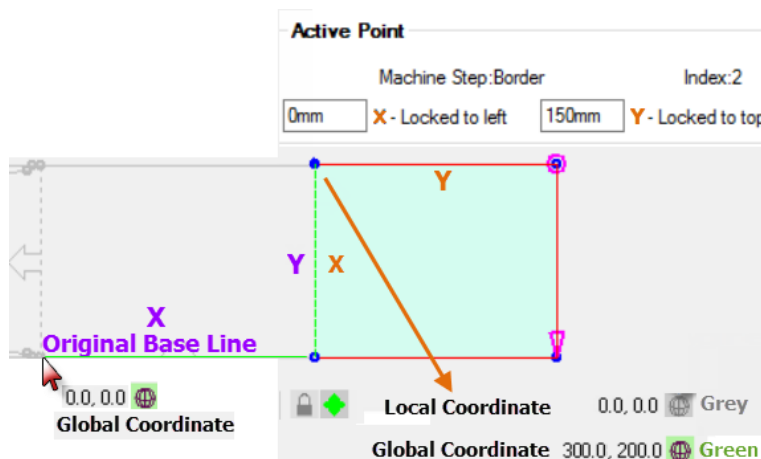
Notes on Coordinates

The points are **Cartesian** i.e. consisting of a set of two lines intersecting each other at right angles, but are rotated so that the Base Line is the X-axis and the intersecting line is the Y-axis, and the point of their intersection is called the origin with the coordinates (0, 0).

Note that the **Global** [0.0, 0.0] origin will always be determined by the **Original Base Line**.

However, as in the case of the image below, the Active Section's Fold Line becomes the Base Line. This determines the X coordinate.

On the diagram, right, when a section is Active, **Pt1** in **Local mode** is the **origin** and its Local coordinates become [0.0, 0.0]. The coordinates of Pt2 are X = 0mm and Y = 150mm (Active Point Index:2 relates to Pt2)



Machine Steps

The Freeform construction interface can perform the following operations on Machine Steps (polygons which specify machining operations and the filled areas in Construction and 3D previews).

The available machine steps are:

- **Border** - sections are created with a border machine step, which is cut out in production
- **Markers** - sets of points for construction use (local to construction preview)
- **Hole** - internal hole (or cutout if it intersects the border)
- **Fold** - set of lines which are scored rather than cut in production
- **Perforation** - set of lines which are perforated rather than cut in production
- **Dimension** - specifies annotation with dimensions
- **Label Arrow** - specifies annotation with labelled arrows

FOR MORE ON FREEFORM CAPABILITIES

REFER TO CHAPTER 8

SAI BOX & DISPLAY USER GUIDE



Box&Display