

## 5 tools to edit curves

for SketchUp 2013 and higher [Free & Pro – PC & Mac]

D. Bur, 05.08.2018

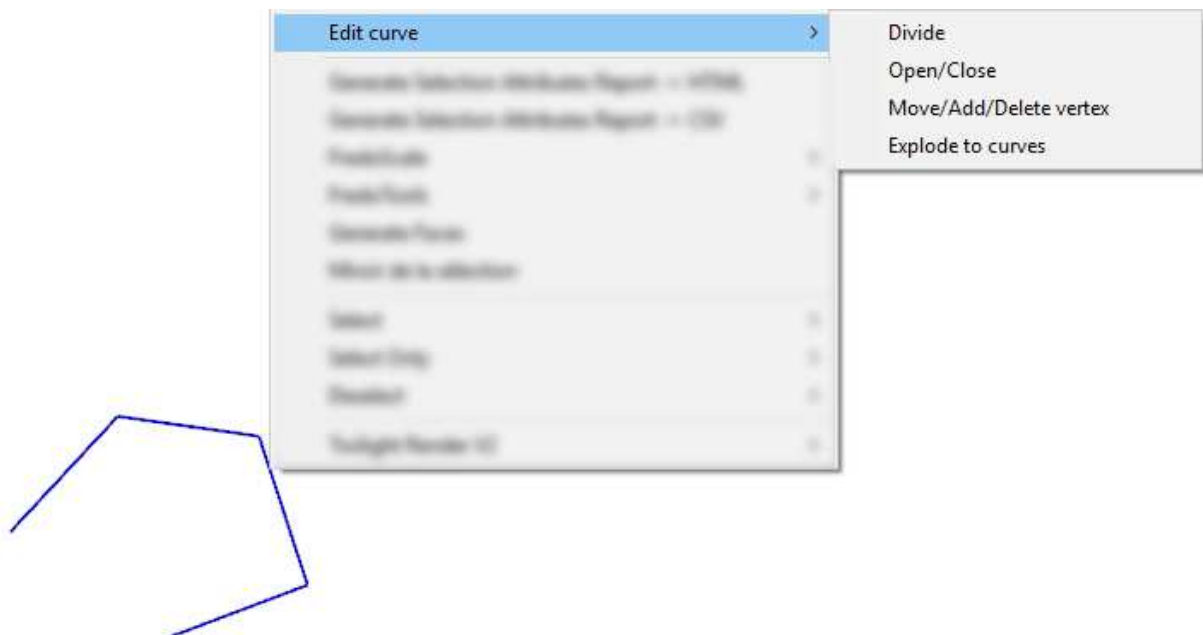
This plugin adds several menu and context menu commands to edit the curves (freehand, arcs, circles) and polygons in your model.

**1. Install** the plugin the usual way with the extensions manager, from the windows menu.

You'll get a new option in the **Tools** menu:



You'll also get this option in the context menu, if a curve is selected (right-click on a selected curve):



## 2. Menu items:

- **Divide:** will split the curve into lines or curves into equal segments, given a number of divisions.
- **Open/Close:** will close a curve if it is open, or open it if it is closed.
- **Move/Add/Delete vertex:** will give you the ability to change the vertices locations, erase vertices, or add new ones.
- **Explode to curves:** will replace a curve by individual curves, one for each segment.
- **Lines to curves:** will convert all edges (or lines) in the current selection into individual curves (one segment each). Note that this command is only available in the dropdown menu, not in the context menu.

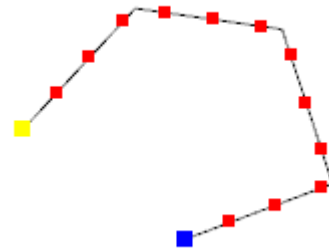
## 3. Graphics:

Start point of curve is displayed as a yellow square.

End point of curve is displayed as a blue square.

Division points are displayed as a red squares.

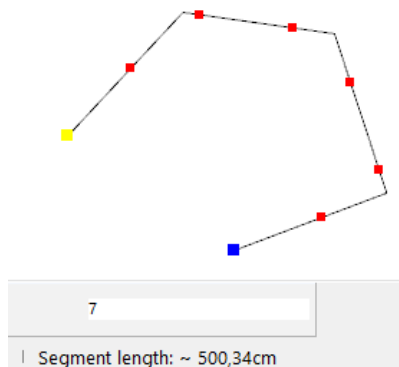
If a closed curve is selected, only its end point is visible (its start point lies "under" the end point).



## 4. Divide curve:

Right-click on a selected curve and select "Divide" from the context menu.

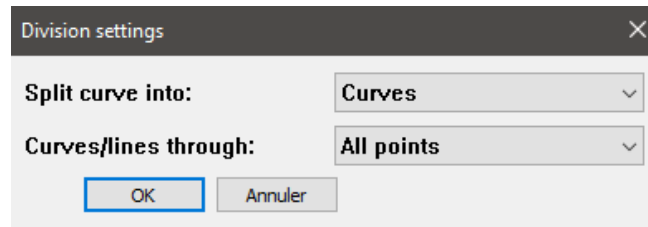
Move the cursor along the curve: the number of divisions increases as the cursor moves closer to the start point. Minimum number of divisions is two. The status bar displays this number, and the resulting segment length:



If the number of divisions becomes too high for the screen resolution, divisions points are not displayed anymore (although the curve can be split, of course),

Left-click to split the curve, or enter another number of divisions in the VCB then left-click.

Several options are available in the following dialog:



**Split curves into:** individual curves or individual lines.

**Curves/lines through:** all points (including the curve vertices) or divisions points only: in this case the shape of the curve will be modified.

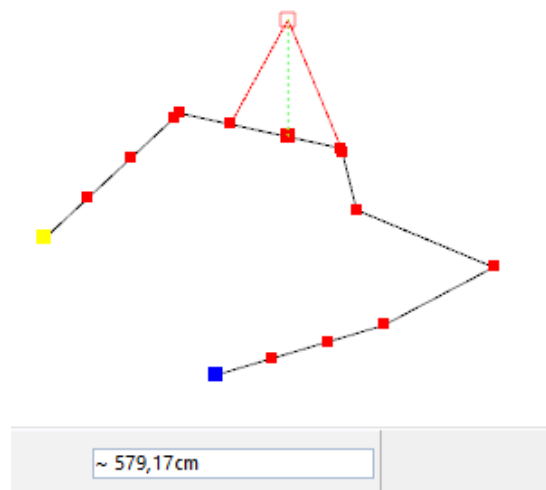
## 5. Move/Add/Delete vertex:

This tool is intended to modify the shape of the curve.

Right-click on a selected curve and select "Move/Add/Delete vertex" from the context menu.

Click on a vertex to move it. Inference and drag are available. Distance from the original vertex location and cursor position is displayed in the VCB.

Left-click to set the new location, or type a distance in the VCB.



Select another vertex to move it, or hit Enter or Escape to exit the tool.

Shift-click on a segment of the curve will add a vertex to the curve, at the cursor location.

Ctrl-click on a vertex of the curve will delete it.

### **Additional notes:**

You can't add a vertex at the middle of a curve's segment: for some (unknown) reason, this would cause a bugspat. So the script checks where each new vertex will be located and does nothing if it is at the middle of a segment.

Dividing curves alter the model if these curves belong to faces (the corresponding faces will be erased).

Converting lines into curves will ignore all entities in the selection that aren't edges.

Altering an arc curve or circle curve will obviously convert it to a "regular" curve.

All commands are "undo-able".

The context menu is only available if the current selection is valid. When selecting a command in the dropdown menu, the selection is also checked:

