

# Geometry Tools: New Reference Point



## **Programmed Result of Tool:**

This tool will take a selected element or multiple elements and move them based upon a start point and an end point and an offset on the current work plane. Additionally, the tool reorients the camera to the current work plane and the selected elements when utilizing this tool in 3D views.

The element or elements can either be pre-selected or the user is given an option to select their element(s) when they run the tool. The user selects a starting point and an end point anywhere on the current work plane and then enters an offset on that movement.

## **Steps to Perform Tool Operation:**

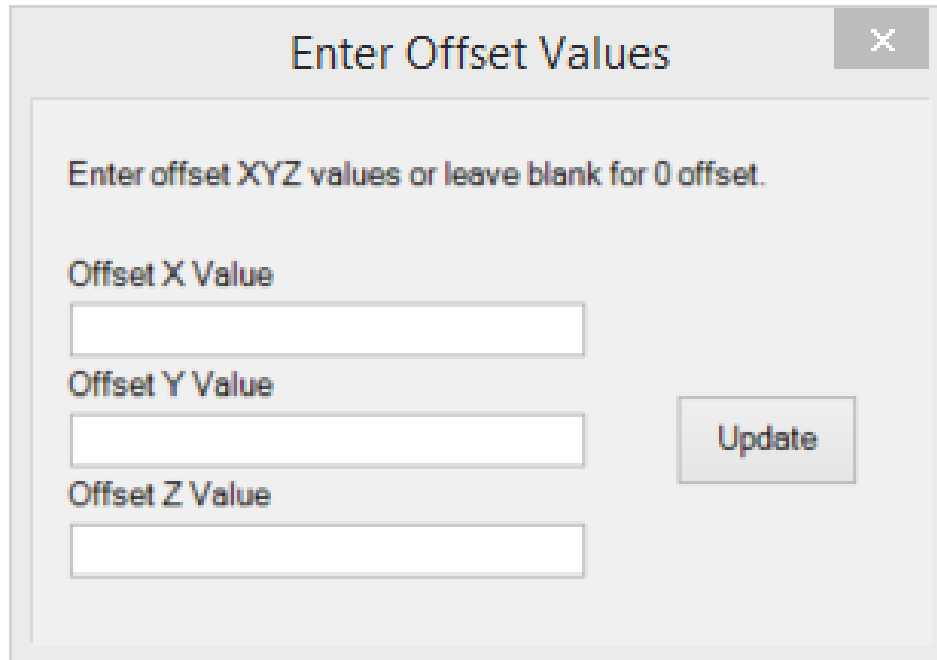
*The tool takes either pre-selected elements or allows the user to select elements to move. If an element is pre-selected, there will be no prompt to select an element. It is also recommended that the user set their work plane before using the tool in 3D views.*

- 1) User clicks the New Reference Point Tool Icon.
- 2) If there is no pre-selected element, the user is prompted to select elements to move where they can click Finish to continue or Cancel to end the process.
- 3) If more than one element is selected, then the user is prompted to select the master element to base Z coordinates on relative to work plane.
- 4) The camera reorients to the selected element(s) and the work plane.
- 5) The user then selects a start point and then an end point to move the element(s).
- 6) A window appears prompting the user to enter an offset. Leaving X, Y, or Z blank/empty will result in no movements in those directions. An offset value of 0 for Z will move the element to the user's set work plane.
- 7) The element or elements then move to the desired location.

## **NOTES:**

1. **Selection of the points can occur anywhere on the current work plane.**
2. **The offset value entered will alter the final element positioning.**

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Enter Offset Values

Enter offset XYZ values or leave blank for 0 offset.

Offset X Value

Offset Y Value

Offset Z Value

Update

## Known Limitations:

- The camera reorientation can look strange depending on where the selected elements are.
- Once the camera reorients the view cube is temporarily locked until you manually move it.
- Selecting the start and end points to move do not give as much in depth information as the standard Revit move tool.
- The start and end point can be selected anywhere on the current work plane, meaning that the movement of the element is based upon the difference between the two points.
- The user must be aware of the scale of movement when entering offset values. The offset values are in feet and inches.
- Direction of movements in 3D views are based on the set work plane for that view.