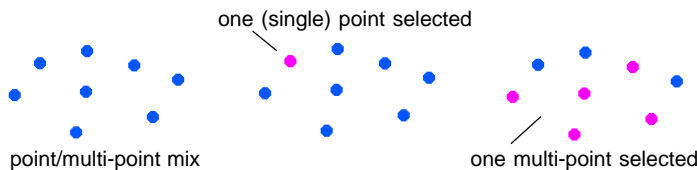
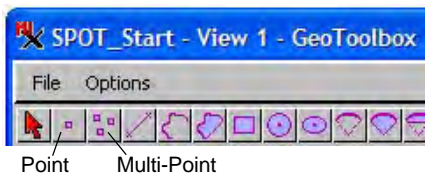


## Points, Multi-Points, and Options

CAD, sketch, and shape objects can have multi-point, multi-line, and/or multi-polygon elements. These element types are not available for vector or TIN objects because of topology constraints. Multi-points/lines/polygons are complex elements that consist of more than one of the indicated element type grouped for selection and further manipulation as a single element. When the object containing these complex elements is drawn, the elements look no different than multiple, individual elements. However, interactive element selection will reveal that more than one point, line, or polygon is selected when you click on one of the elements that is part of a complex element. The spatial Editor supplies a tool to separate complex elements into individual elements when a CAD or shape object is being edited.

Separate icon buttons are used to choose between points and multi-points in the GeoToolbox. The separate icon for multi-points in the GeoToolbox avoids accidental use of the multi-point mode.

There is a single icon button for adding point elements in the spatial Editor that creates either points or multi-points in CAD and shape objects, depending on your sequence of steps. Creating multi-lines/polygons rather than single lines/polygons requires deliberate action by the user. Multi-points are added by left-clicking at the location of each of the points in the complex element then right-clicking to finish the element's point set. The method for switching between adding single lines/polygons and multi-lines/polygons is discussed in the Technical Guide entitled *Spatial Editor: Graphic Tool Updates*.

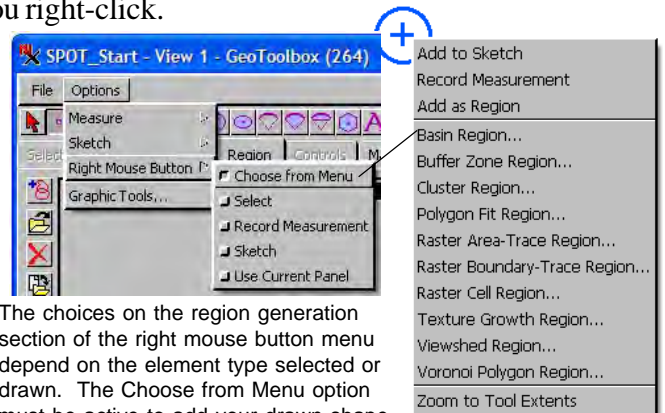


A display of points that includes three single points and one complex point (made up of five individual points). The magenta points illustrate the points selected by a single click near a simple point (center) or a complex point (right).

The Point and Multi-Point tools operate somewhat differently. When adding single points, successive left-clicks change the location of the point until its location is finalized by a right-click. When using the Multi-Point tool, each left-click adds a point as a component of the complex element. In both cases, a right-click finalizes the new element by adding the point/multi-point in its current position.

Changing the location of an individual point within a multi-point requires use of the Edit tool in TNT's spatial Editor. The individual points in a multi-point element can be separated into multiple single points using the Separate Complex Elements tool in the spatial Editor.

You can set the action of your right mouse click when adding points/multi-points from the GeoToolbox (Options/Right Mouse Button in the GeoToolbox window). Your options are to choose the desired action from a pop-up menu when you right-click or to have the right-click automatically perform some action, such as adding the element to a sketch or recording its measurement parameters. If a sketch object or file for measurements is not open when the corresponding option is set, you will be prompted to select one (new or existing) the first time you right-click.



The choices on the region generation section of the right mouse button menu depend on the element type selected or drawn. The Choose from Menu option must be active to add your drawn shape as a region or generate regions from it.

If you use the Choose from Menu option, a right-click can select elements in (or out) of the area you draw, add the drawn element to a sketch layer, record its measurement parameters to a file, add the drawn element as a region, generate a region from the element drawn, or zoom to the extents of the tool (drawn element). This last choice has no effect if you have drawn a single point.