

TIPS

from



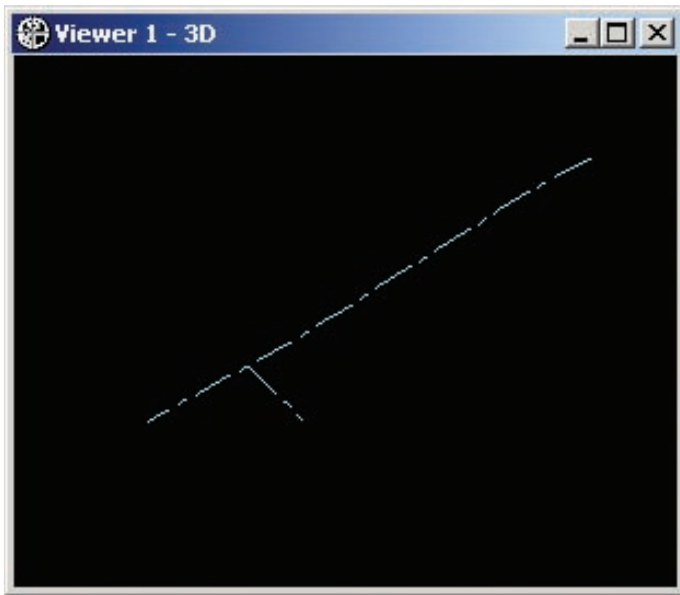
Tech Support

The Template Editor

The **Template Editor** offers a quick, convenient means of constructing 3-D solids such as mine entries or roadbed cut and fill solids from 3-D definition polylines, such as centerlines. The use of the selected shape from the **Template Editor** is fairly straightforward. First, you select the template you wish to utilize from the **Template Editor**, and then, after selecting the polyline, use the MineSight® menu function Surface | Create Solid | Attach Template along Polyline. This will attach an instance of the template to each node on the selected polyline. This article will explore the options for sizing and placing the template, as well as considerations that should be taken into account when using this tool.

Creating a 3-D Underground Entry from Centerlines

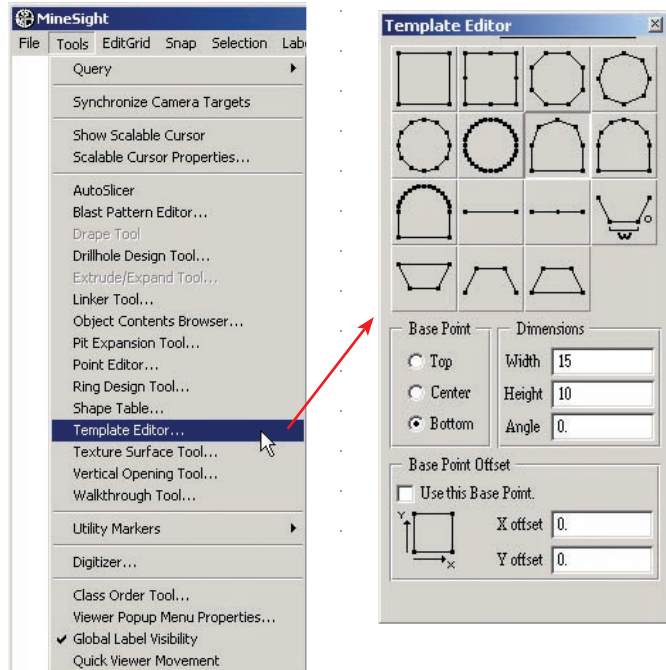
This common task is greatly simplified through the use of the **Template Editor**; the figure below illustrates a simple centerline design to which we wish to attach an arched template to form a 3-D arched entry.



To begin the process, we select both portions of the centerline for editing (Selection | Make New); then, from the MineSight® Tools menu, select the **Tem-**

plate Editor. The **Template Editor** interface is shown in the figure below.

The **Template Editor** displays the available default template shapes, with the nodes represented by black dots. For example, the two left-most templates on the top row are both squares, although the first template has points only at the corners, while the second template also has points at the midpoints of each side of the square. If none of the default templates are appropriate for your purpose, you can also utilize any 2-D polyline as a **User Template**. For our example, we wish to attach an arched opening to our polyline, so we've selected an appropriate template.



Once the polyline is selected and the template is specified, the **Base Point** location, size, and angle should be set; you can also specify a **Template Angle** and **Base Point Offset** if desired. For our example, we've been given an entry width of 15 feet, and an entry height of 10 feet. The Angle field allows you to tilt

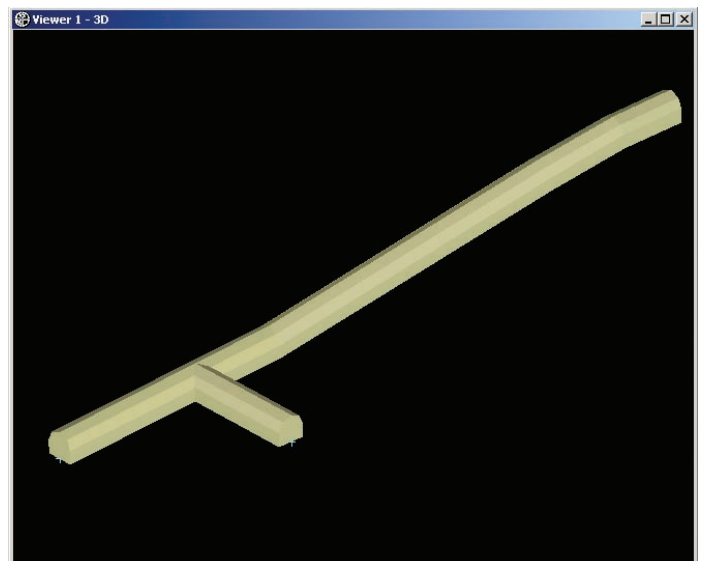
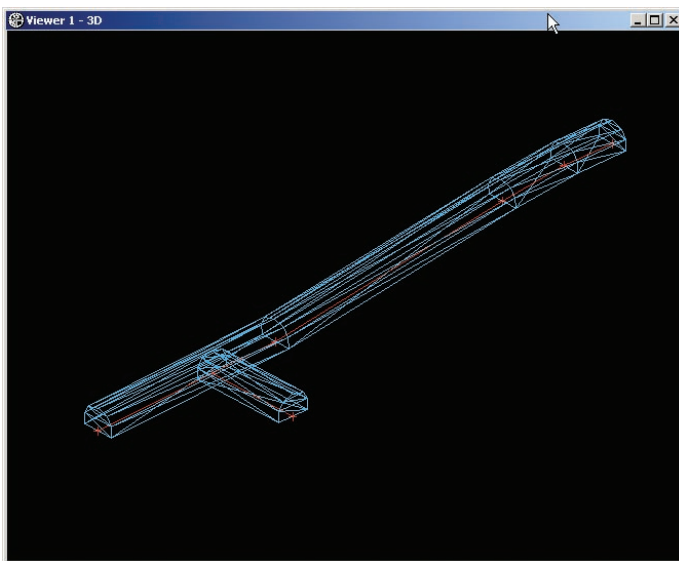
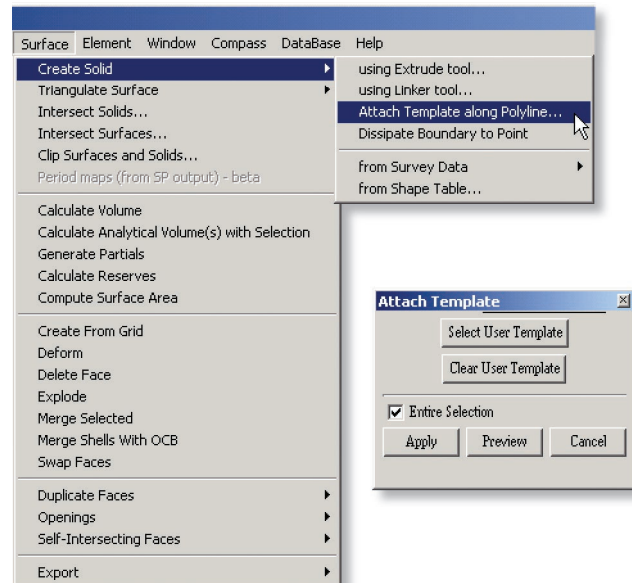
(continued on page 9)

(Template Editor continued from page 8)

the template with a zero entry representing a vertical orientation. We'll put the base point at the bottom of the template and no lateral offset of the template is required.

Now invoke the **Attach Template along Polyline...** function from the **Surface** menu, **Create Solid** sub-menu. The **Attach Template** dialog provides a **Select User Template** button; to use your own shape as a template, click this button and then select any 2-D polyline from the viewer. The dialog settings shown in the **Template Editor** on page 8 yield the **Preview** shown below.

Note that the two individual polylines result in two individual closed solids. We'll merge these together into a single solid to eliminate the overlaps in a bit. Notice also that the selected template is attached to each node of the selected polyline. If required, you can "densify" or thin the polyline to change the size of the segments of the resulting solid. Once you have generated an appropriate **Preview**, click the **Apply** button to commit the new entry to the **Edit Geometry Object**. If there is no **Edit Object**, you will be prompted for the location of the resulting solid. The figure to the right below, shows the completed solid with color and faces applied.



To combine the two solids into one, the simplest tool is the **Intersect Solids Tool**, found on the **Surface** menu. Take the **Union of the two solids**, and the result will be a single closed solid that can be used to determine development volumes, tonnages, and grades using the MineSight® Interactive Planner Tool.

Other templates available in the **Template Editor** can be used to create square, octagonal or circular entries, or straight lines. The trapezoidal templates can be used to construct roadbed cut and fill surfaces. The resulting surfaces can then be merged with topo or other survey surfaces to create a final surface with the roadbed volumes included.

The **Template Editor** used in conjunction with the **Attach Template along Polyline...** function will allow you to quickly and conveniently create quite complex solids, while working from simple 3-D polylines. The basic use of this tool has been outlined, and some typical applications suggested. There are undoubtedly, many more creative uses for this tool. Try it out and if you have any questions, call Technical Support.