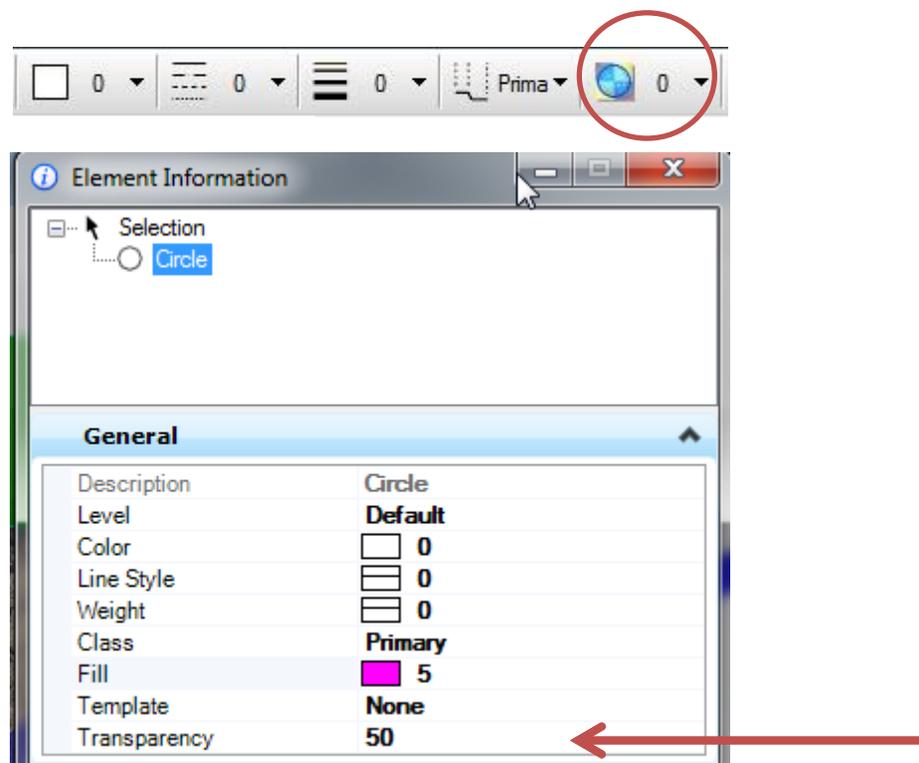


## Creating Prints or PDFs with Transparency

Printing in MicroStation is based upon “What you see is what you get” (WYSIWYG), so if you can visualize the transparency, you can print it or create a PDF or image. Drawing order naturally accompanies a discussion about transparency. There are two methods for determining if an element will be viewed through the filter of a transparent fill or if it will be drawn on top of a filled shape or other element.

### Transparency Attribute

Transparency is an attribute of an element and may be set on the Attributes toolbar, or applied in the General section of the Element Information (Properties). 0% is opaque, 90% transparent is pretty faint. A slider bar and entry field at the bottom of the pull down allows you to set values that are not factors of 10.

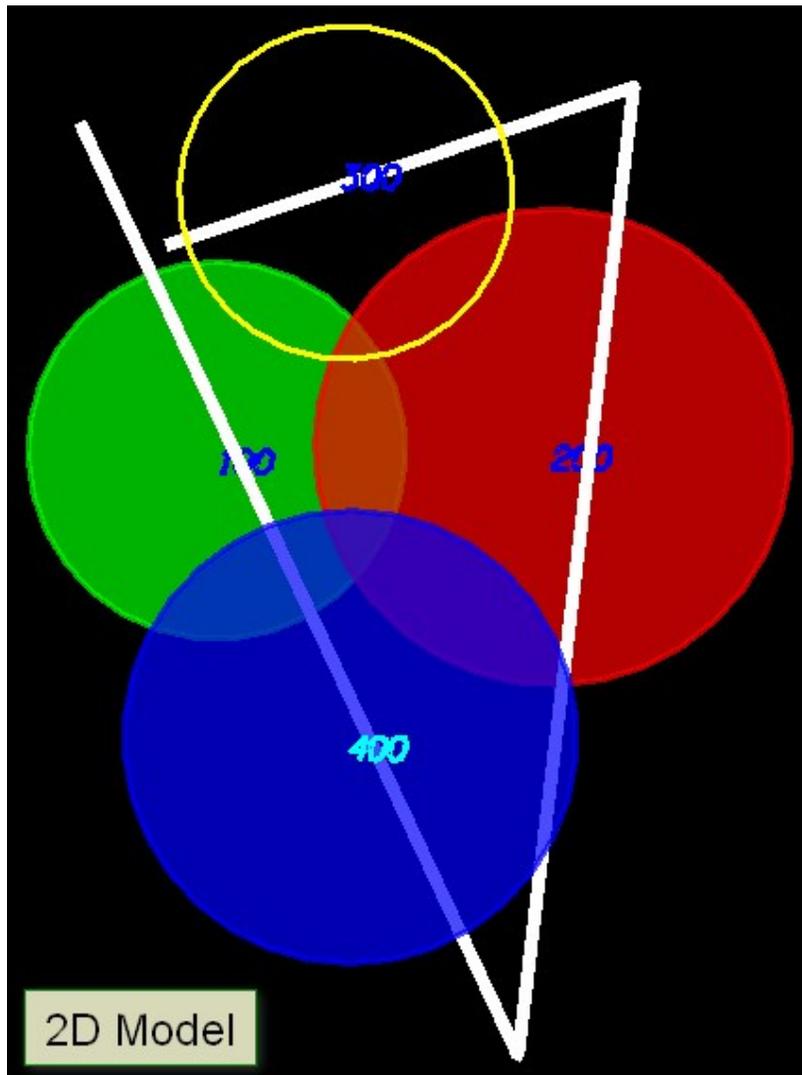


## Element Priority Attribute

Element priority is also an attribute of an element, which in 2D models determines how an element is displayed relative to other elements (in front of versus behind). This is a 2D-only attribute and the element priority button is grayed out (inactive) when the active model is 3D. In a 2D model, a lower element priority will cause an element to appear behind an element with a higher element priority. A slider bar and entry field at the bottom of the pull down allows you to set values that are not factors of 100.

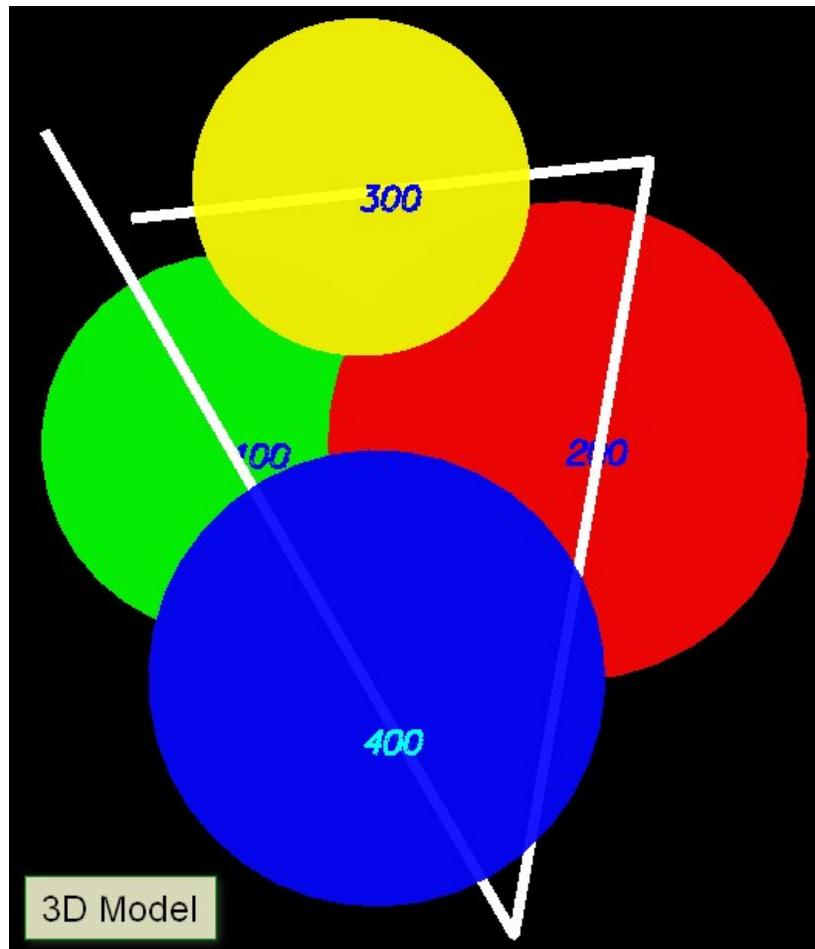


The effect of different element priority settings is shown in the image below. Three circular shapes are filled and have a transparency of 30%. The yellow circle is unfilled with transparency of 0 (the circular element is opaque). Each circle has a priority value equivalent to the text at the center. The white linestring has a weight of 10 and a priority value of 250. The linestring is drawn after (on top of) the green and red circles, but before (beneath) the yellow and blue circles.



## Elevation

In 3D models, the elevation of the element determines how an element is displayed relative to other elements (on top or above versus beneath or below). Elements that are lower in elevation appear beneath elements that have a higher elevation. The effect of different elevations in a 3D model is shown in the image below. The four circular shapes are filled and have a transparency of 10% (this is pretty dark highlighting!). Each circle has an elevation equal to the text at the center. The white linestring has a weight of 10 and an elevation of 250. The linestring is drawn after (on top of) the green and red circles, but before (beneath) the yellow and blue circles.

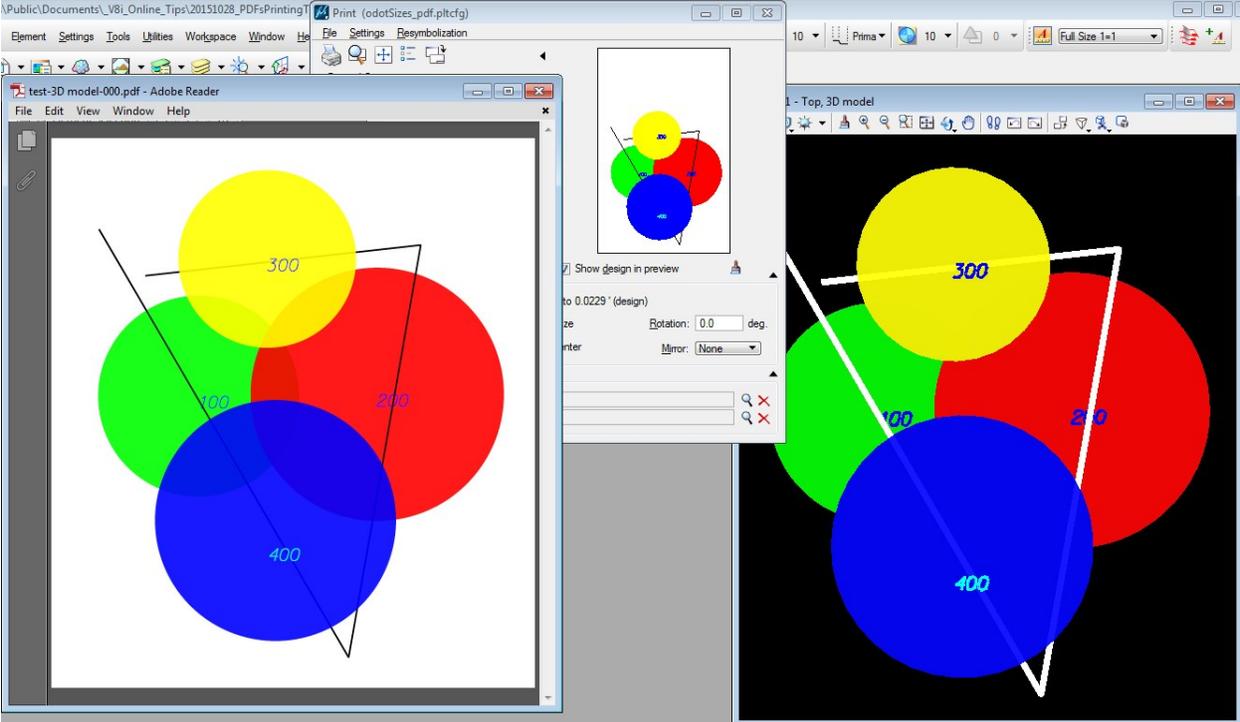


## Printing With Transparency

Use MicroStation Print to create PDFs that display transparency. It is possible to print to paper directly from MicroStation and achieve highlighting on the paper; however, the option to “Rasterize” must be employed. Rasterization causes diagonal lines to appear choppy and text to appear blurred, so it is not recommended. What is recommended is to create a PDF, JPG, or TIF that displays the transparency and print that product to paper – this will print transparencies and clear diagonal lines and text.

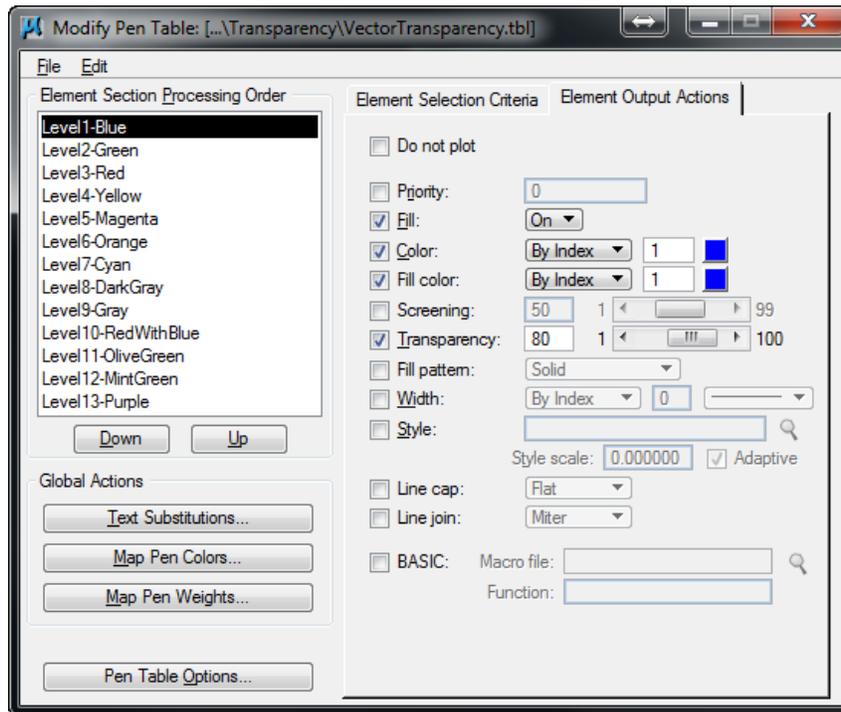
Be aware that the thumbnail view and the print preview in the MicroStation Print dialog will display your transparent shapes as opaque when creating a PDF. Don’t let those previews fool you. The resulting PDF is a mere few seconds away; the PDF will open automatically, and will display the transparencies. Print the PDF to paper for a hard copy that shows the highlighting.

In the image below you can see that the PDF on the left shows the transparency of the yellow circle over the linestring, while the thumbnail view on the Print dialog (center) displays opaque circles.

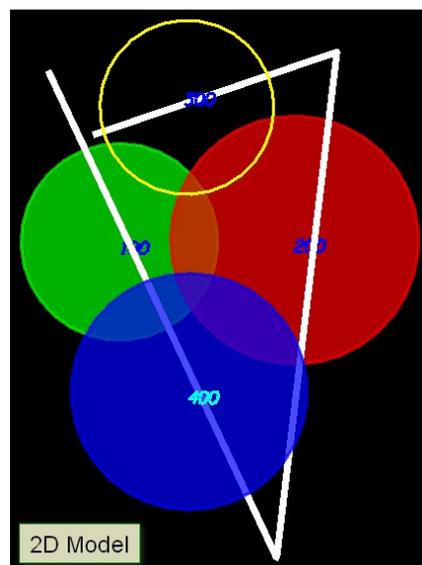


## VectorTransparency.tbl Pen Table

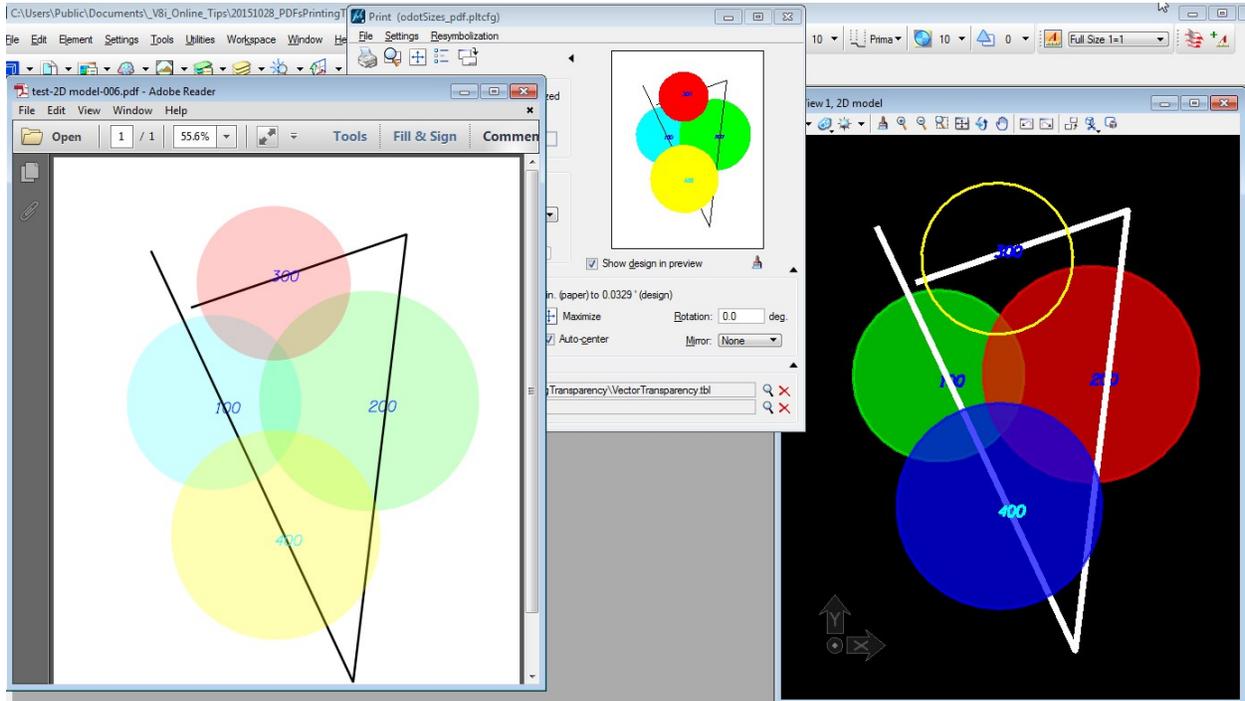
A pen table was created for MicroStation V8 2004 and was used to resymbolize closed, unfilled shapes drawn on numbered levels from Level 1 to Level 13 with transparent fills of varying colors. This pen table allows you to outline areas (no filling) and have the transparent fill be applied during the creation of the PDF. The VectorTransparency.tbl pen table may be used to create prints with transparency (paper, PDF, jpg, etc) in MicroStation V8i.



To use the VectorTranparency.tbl pen table, the shapes in the 2D model image below, were placed on Level 1 (green, 100), Level 2 (red, 200), Level 3 (yellow, 300 – note it is unfilled), and Level 4 (blue, 400).



The VectorTransparency.tbl pen table is attached in the MicroStation Print dialog (Resymbolization>Attach Pen Table). In the image below, you can see that the pen table is overriding the element attributes and the level assignment has caused the circles to all be filled and to change color. Recall that the thumbnail preview displays only opaque fills. The resulting PDF is open at the left and shows a 70% transparency has been applied.



The VectorTransparency.tbl pen table may be downloaded by clicking this link, then Save As – [VectorTransparency.zip](#)

Extract the .tbl prior to attaching.