

040b73747265616d747970656481a203840163c48403737373810a0a810b0b815f5f84012584067f411b312d37SHAPES: Shape Library ± Clipping Modes

## ShapeElementTool1.tiff ▸ Clipping Modes

In the clipping area of the *Shape Library* panel you can choose among three different clipping modes to determine how the outline of one element clips another.

837986\_paste.tiff ▸

For calculating the clipping areas of paths, the same rules apply as for <Fill Color> (;interior.rtf;;▸).

### 554169\_paste.tiff ▸ Even-Odd

For shapes with simple paths, everything outside the perimeter of the path will be cropped. For more difficult paths, especially paths which cross themselves, the *even-odd rule* is used to determine the <sup>a</sup>inside<sup>o</sup> areas, i.e., the areas that remain visible after clipping. A ray is drawn from any point of an area into any direction and the path segments the ray crosses are counted. If the counter becomes an odd number, the area is considered to be <sup>a</sup>inside<sup>o</sup>. If the counter becomes an even number, the area is <sup>a</sup>outside<sup>o</sup> and will be clipped away.

### 110515\_paste.tiff ▸ Non-zero winding number

For shapes with simple paths, this clipping mode yields the same results as the even-odd clipping mode. For more complex paths the *non-zero winding number rule* works as follows for determining which areas will be clipped:

From any point inside the examined area a ray is drawn into any direction. The path segments the ray is crossing are examined about their direction. If the ray is crossed from left to right the counter is incremented; if it is crossed from right to left, it is

decremented. If the final number is zero, the point is <sup>a</sup>outside<sup>o</sup> and the examined area will be clipped away; otherwise the area is inside and remains visible.

## **117152\_paste.tiff ↪ Strokepath**

The strokepath clipping mode employs the path itself as the clipping area; i.e., everything but the path line will become invisible. The weight and other attributes of the outline can be specified using the options for outline color and style (;perimeter.rtf;Linienstil;↪).

Clipping is a very complicated subject, especially if complex clipping paths are created. The *non-zero winding number rule* and the *even-odd rule* have been specified in the PostScript programming language, so for detailed discussions of them, please refer to a book about PostScript. In most cases, though, it will be simpler just to experiment with different paths and clipping modes until you get the results you want.

You can annul any clipping operation by using the *<Remove>* command

(;../OneVision/MainMenu/Element/ElementInspector.rtf;Entfernen;↪)  
) in the Element Inspector.

More information about how to clip in OneVision is available in the chapter *<Clipping>* (;../OneVision/WorkingIntro/Clipping.rtf;;↪) in the *<Introduction to Working with OneVision>*.

Next: ;ShapeElement.rtf;;↪ Shape Library