

A new option titled “Envelope” (Figure 1) has been added to the solid modeling Special Options menu.

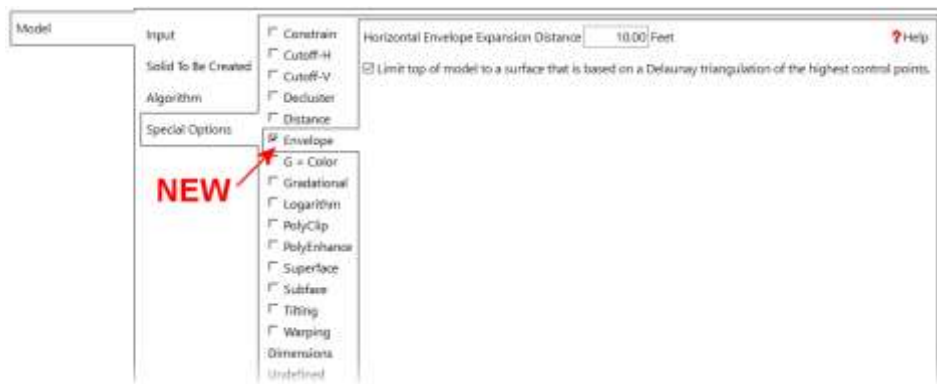


Figure 1

The Envelope option will limit the modeling to a 3D convex polyhedron that confines the control points. Think of it as a bathtub that is custom-fit to the control points. As an example, consider a collection of XYZG points from a series of trapezoidal resistivity profiles (Figure 2). The Envelope option will implicitly bevel the edges of the model to the edges of the resistivity trapezoids.

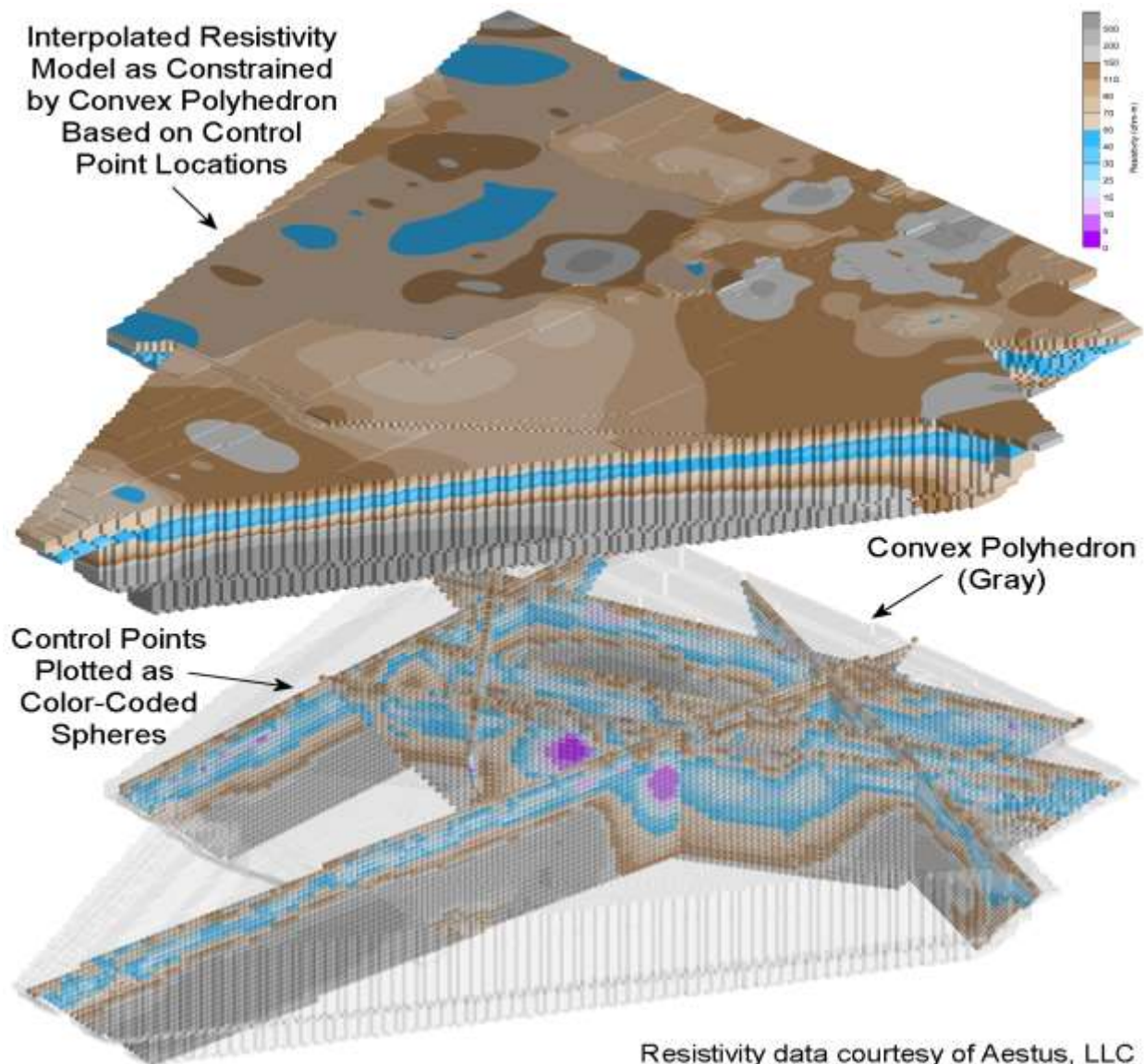


Figure 2

If desired, the 3D polyhedron may be slightly enlarged beyond the control point extents by increasing the Horizontal Envelope Expansion Distance (Figure 3). Note: Over-extending the envelope will produce unwanted spurious artifacts.

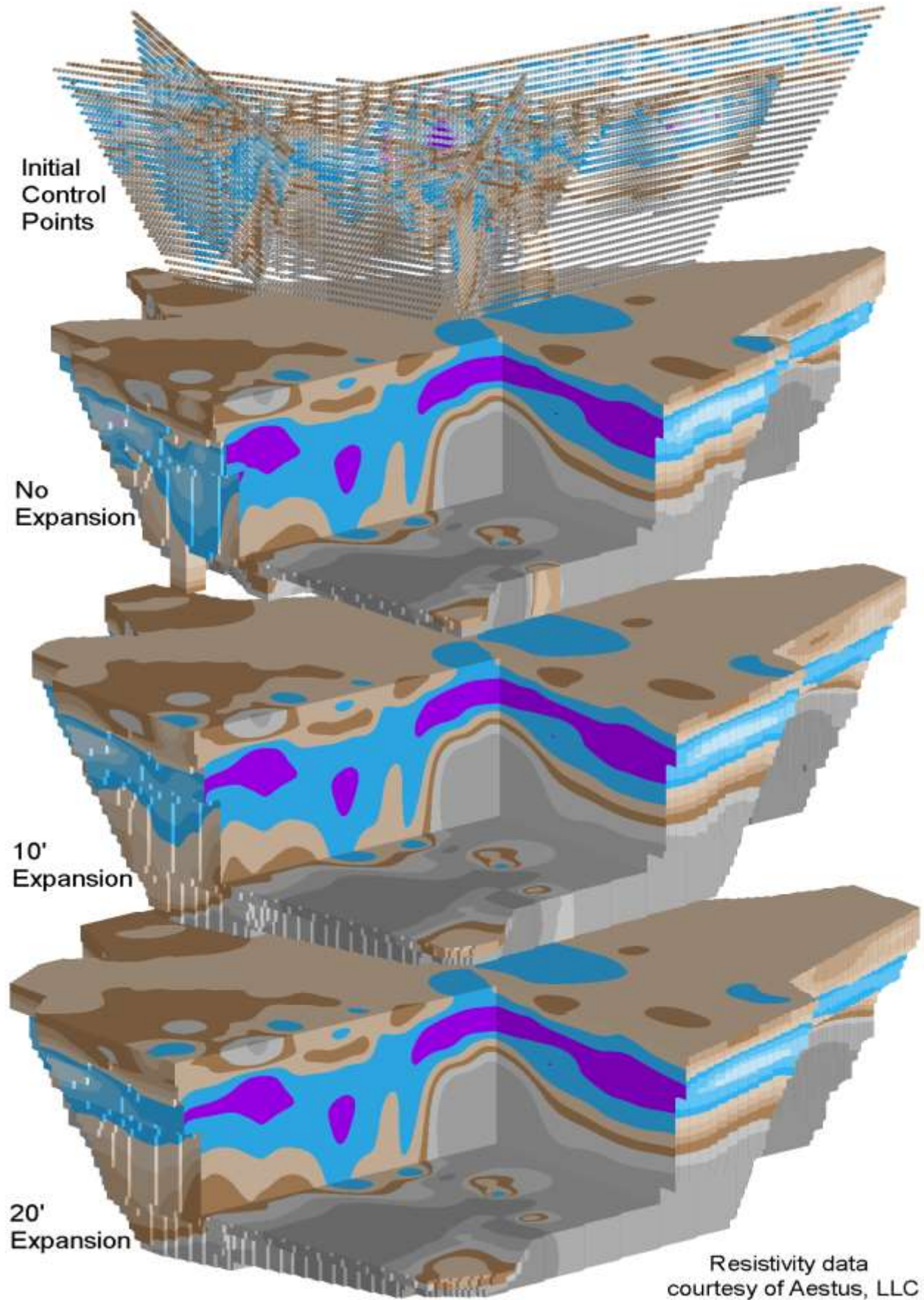


Figure 3



The Limit option will truncate the top of the model to a surface that is based on a triangulated grid that is fit to the highest control points (Figure 4). Note: The Envelope Expansion distance should be set to zero if the Limit option is enabled. Otherwise, the triangulated surface will be inset into the top of the model (Figure 5).

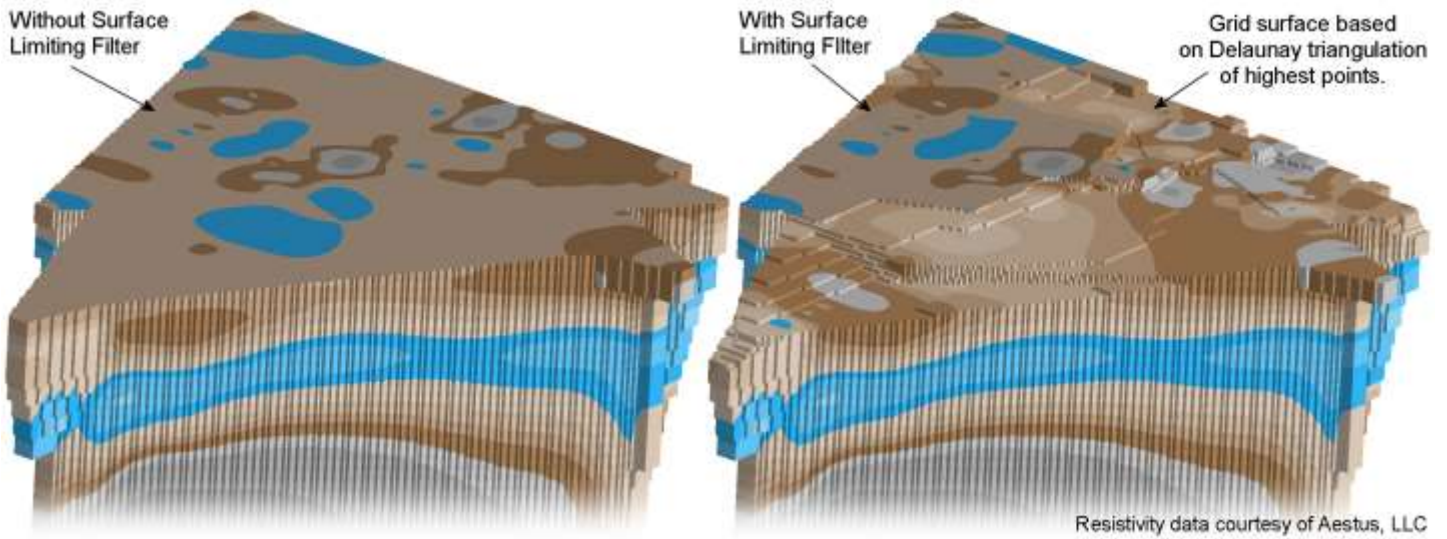


Figure 4

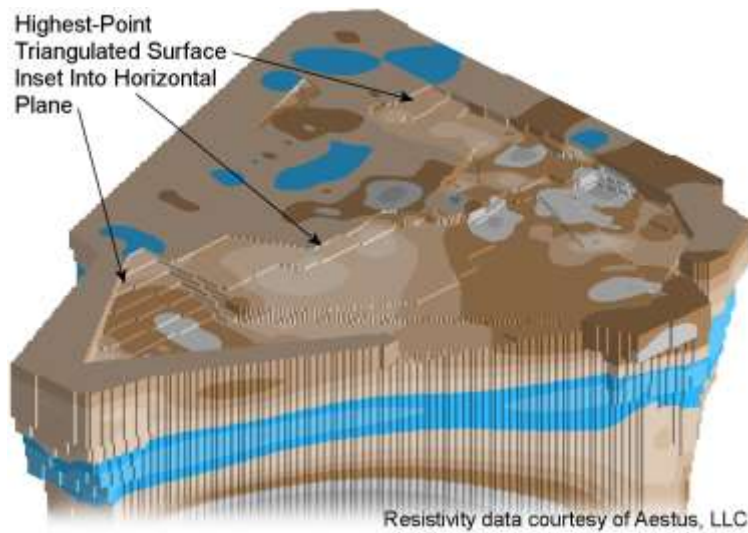


Figure 5

The Envelope option within the solid modeling menu includes an option to offset the base of the model by a user-specified amount (Figures 6 & 7).

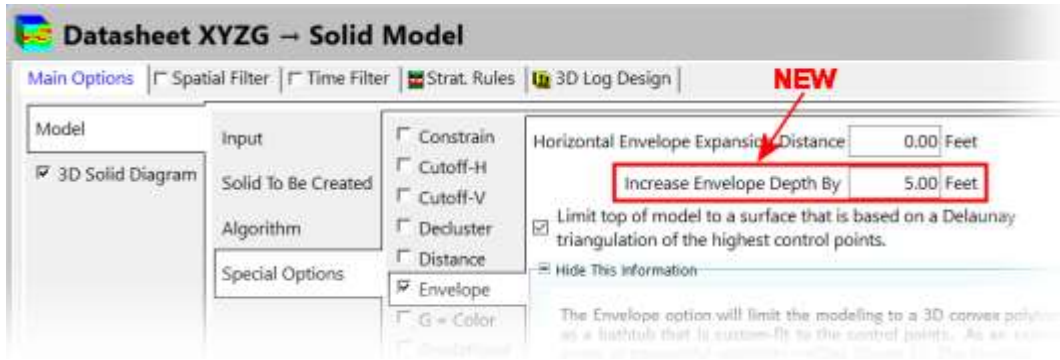


Figure 6



Figure 7