

## 3D Surface Viewer

The following instructions will guide the user through the process of viewing the 3D surface inside of the 3D viewer from the surveyed point data that represents the existing field conditions. These instructions assume that the point data has already been downloaded and drawn in SurvCADD. SurvCADD modules are displayed as {**any SurvCADD Module**}, main menus are displayed as [DTM], and submenus and menu commands are displayed as <3D Viewer Window>.

- 1) Viewing the 3D Mesh in 3D: {**any SurvCADD Module**}  $\implies$  [View]  $\implies$  <3D Viewer Window>
- 2) Select the entire 3D mesh, 3D polylines, points, lines, and faces to be drawn in the 3D viewer window. Once the selection has been completed press “Enter”
- 3) The 3D surface viewer window appears on the screen in the XY plane.
- 4) This view may be manipulated about the X, Y, and Z axis and shaded in user positioned lighting.
- 5) Use the X, Y, Z scrollbars on the right side of the viewer window to rotate the view about any of the three axis or move you cursor on the screen until the axis that you want to rotate about appears.
- 6) Once the axis of rotation is chosen then hold down the left mouse button and move mouse in the direction of desired rotation.
- 7) The defaulted view of the mesh in the viewer window is shown as framework. The mesh can also be shaded to allow better visualization of the surface.
- 8) To shade the mesh, simply click on the “**toggle shading of surfaces**”  
  
icon.
- 9) The color shading is controlled by the “sky and sun” control on the top of the control window. This control represents the position of the sun in the sky if looked at from above.
- 10) To move the sun, drag it to the new location or just click on the desired location. The sun positioned in the center is zenith 90, and if positioned near the edge means near horizon.
- 11) To exaggerate the scale of the 3D model, change the drop down box labeled “**Vert. Scale**” to a value greater than one.
- 12) By selecting the “**Color By Elevation**”, the mesh will become various colors based on the ranges of elevations. The color legend will appear to the left of the mesh.
- 13) To export this 3D mesh into a printable file: Select the “**Advanced**” tab.

14) Click the camera button 

15) Choose the image size, and then click **OK**. Now, save the file in the job folder.