
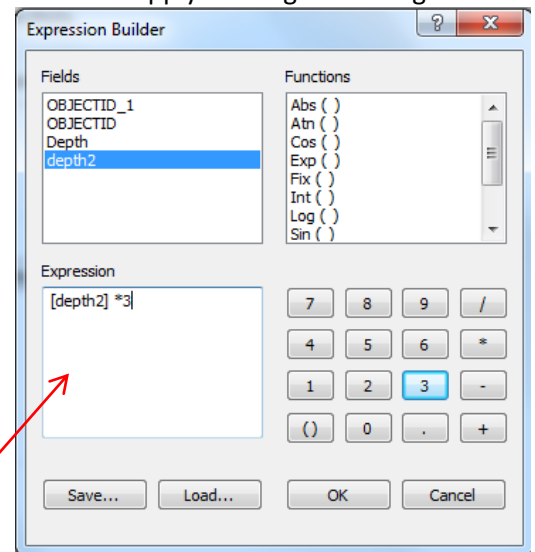
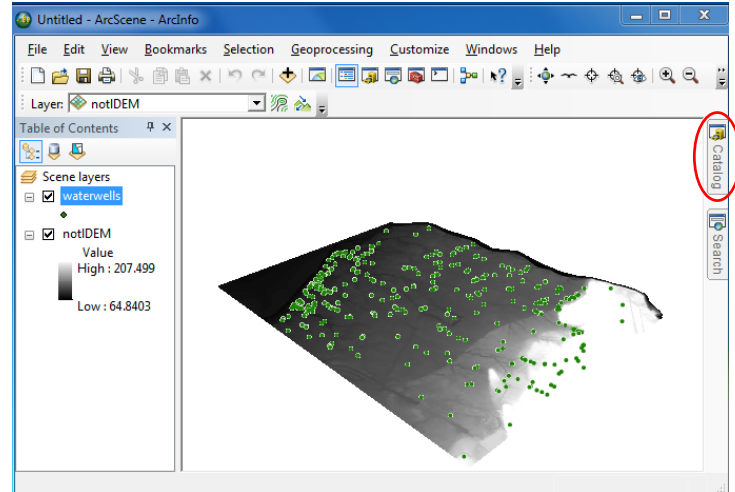


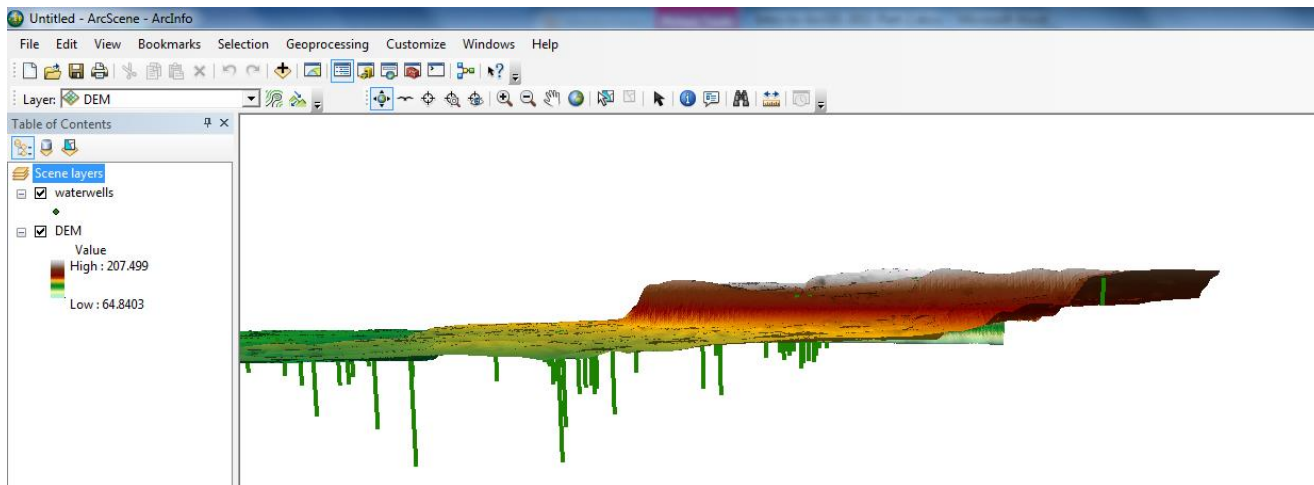
3D Visualization

The following steps briefly outline viewing 3D data using *ArcScene* (3D viewer that accompanies *3D Analyst*, an extension of *ArcGIS 10*). Download & unzip sample data from http://www.brocku.ca/maplibrary/Instruction/3D_visualization.zip

1. From the Windows START button, navigate to ArcGIS > ArcScene.
2. From the ArcScene Getting Started window, create a New Blank Scene.
3. Click the Add Data button .
4. Navigate to the downloaded geodatabase **\3D\NOTL.gdb**
5. Select **DEM** and click Add.
6. Use the **ArcCatalog** tab to the right of the map window to locate and add the **water wells** feature class.
7. From the Table of Contents, right-click **DEM** and select **Properties**.
8. From the **Base Heights** tab, select “Floating on a custom surface” where the path indicates **\WorkshopII\NOTL.gdb\DEM**
9. Click the **Raster Resolution...** button and under ‘Base Surface’, enter **10** for both Cellsize X and Cellsize Y.
10. From the **Symbology** tab, right-click the color ramp and click “Graphic View” to uncheck it.
11. Select “Elevation #1”.
12. Under ‘Stretch’, change the type to **Standard Deviations** and change n: to **3**.
13. From the **Rendering** tab, check the box under ‘Effects’ to shade areal features to apply shading and change the drawing priority to **3** using the drop-down box.
14. Click OK.
15. Right-click *waterwells* and open the attribute table. The field “depth” defines the depth of each well in feet. The following steps will result in a visual display of the water wells below the surface of the Digital Elevation Model.
16. Close the attribute table.
17. Right-click *waterwells*; select **Properties**.
18. From the **Base Heights** tab, select “Floating on a custom surface” . The path should indicate **\3D\NOTL.gdb\DEM**
19. From the **Extrusion** tab, check the box beside “Extrude features in this layer”.
20. Click the calculator button beside the expression box; click ‘depth2’ then ***3**. Click OK.
21. From the **Rendering** tab, uncheck the shade effects options.
22. Click OK. Small changes in elevation require a vertical exaggeration be applied.
23. From the Table of Contents, double-click *Scene Layers* to access **Properties**.
24. From the **General** tab, select a value of **5** for vertical exaggeration. Click OK.



25. Explore the scene using the navigation tools.



The concepts introduced in this tutorial are very complex. To learn more use the online HELP files or consider enrolling in an ESRI Virtual Campus course such as:

- [3D Visualization Techniques](#) (1 module, 3 hours)
- [3D Analysis of Surfaces and Features](#) (1 module, 3 hours)
- [Creating 3D data](#) (1 module, 3 hours)