Voxel Math Expressions in Oasis montaj

Use Closed Surfaces in Voxel Math Expressions

Closed bodies created by wireframing polygons together can be used as surfaces to clip voxels in the Voxel Math Expression builder. This allows you to clip a hole out of a voxel or to clip the extents of a voxel to the inside of the surface. New statistics can then be viewed for the output voxel.

To clip a voxel to the outside of a closed surface:

1. From the *Voxel* menu in the *3D Viewer*, select **Voxel Math**. Voxel Math is also available from the *3D | Voxel Utilities* menu.
2. Enter the **Expression**: *V0 = out(V1,S0)*.
3. In the *Assign voxels and grids* area, specify the output voxel, input voxel and input surface.

   V0: this will be the new output voxel.

   V1: this is the input voxel to clip.

   S0: this is the input surface used to clip the voxel.
4. Click **OK**.

   The output voxel is added to the 3D Viewer.

   If the closed surface is fully contained by the input voxel, you may have to visually clip the X, Y or Z axes to see the results of the clipping in the output voxel.

To clip a voxel to the inside of a closed surface:

1. From the *Voxel* menu in the *3D Viewer*, select **Voxel Math**. Voxel Math is also available from the *3D | Voxel Utilities* menu.
2. Enter the **Expression**: *V0 = in(V1,S0)*.
3. In the *Assign voxels and grids* area, specify the output voxel, input voxel and input surface.

   V0: this will be the new output voxel.

   V1: this is the input voxel to clip.

   S0: this is the input surface used to clip the voxel.
4. Click **OK**.

   The output voxel is added to the 3D Viewer.

To view voxel statistics:

1. In the *3D Viewer*, select the **Output voxel** from the *3D Objects tree*.
2. From the *Attributes* tab, click **Visible Cell Statistics**.

The *Voxel Statistics for Visible Cells* dialog opens and displays information such as, Volume, Minimum, Maximum Mean.

How-To Guide Publication Date: 18/11/2013

Copyright 2013 *Geosoft Inc. All rights reserved.*