

RW/11/25/21/JPR – New: A program titled “Solid Vertical Slice -> Grid” has been added to the ModOps / Solid / Extract Grids sub-menu (Figure 1).

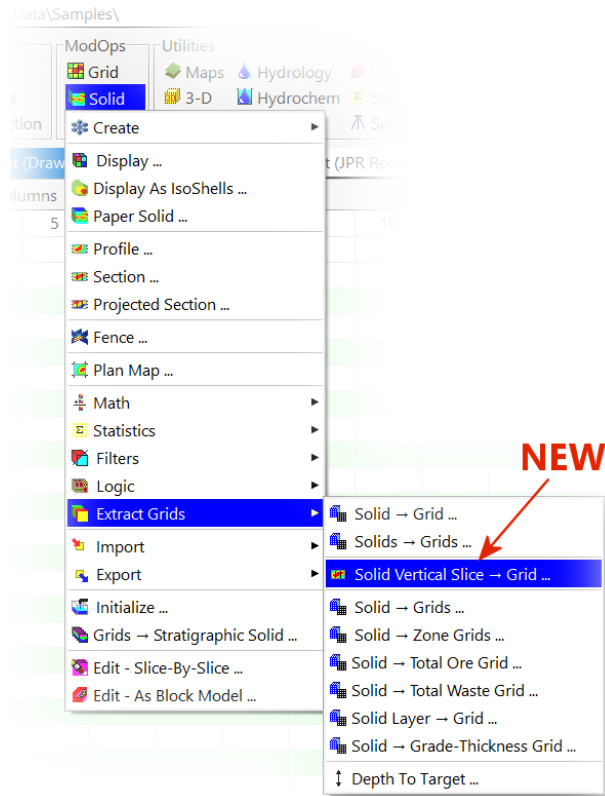


Figure 1

This program (Figure 2) may be used to (1) create a grid that represents a vertical slice through a solid model based on two user-defined endpoints, (2) display the grid, and (3) create a report in a variety of format that lists the XYZ coordinates and corresponding solid-model g-values at those locations.

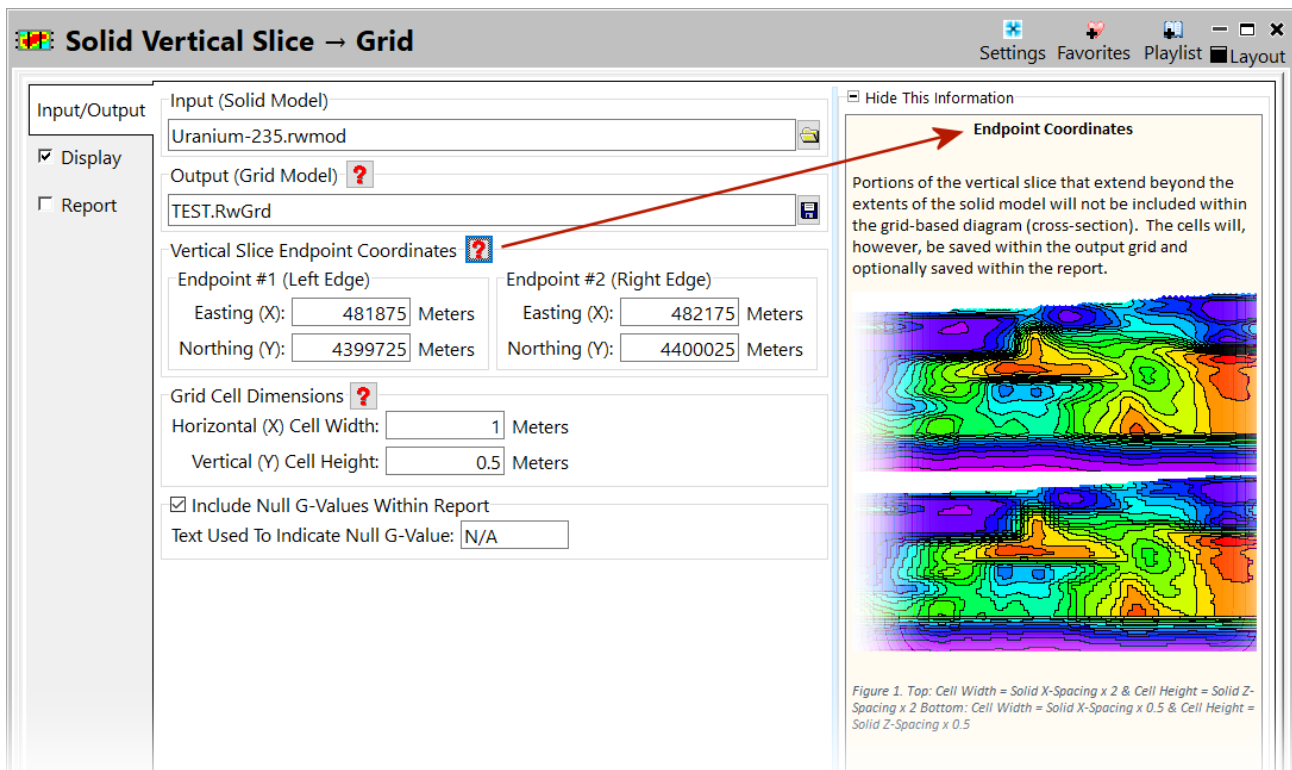


Figure 2

The x-coordinates within the output grid will represent the distance from Endpoint #1 along a line connecting Endpoint #1 with Endpoint #2. Portions of the vertical slice that extend beyond the extents of the solid model will not be included within the grid-based diagram (cross-section). The cells will, however, be saved within the output grid and optionally saved within the report.

For optimal aesthetics (smoother contours), set the width of the cells equal to or greater than the solid model voxel width and the cell height to be equal to or greater than the solid model voxel height. If the cell dimensions are significantly smaller than these recommendations, the diagram will be blocky (Figure 3) – but still accurate.

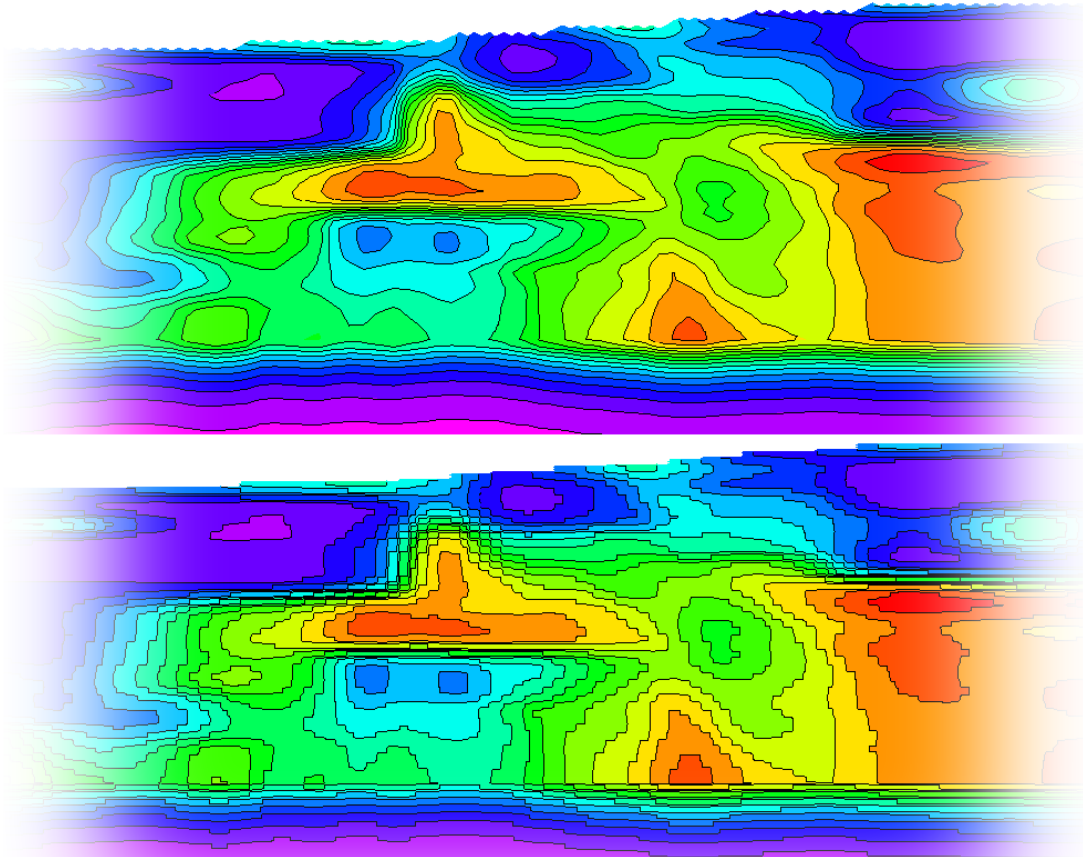


Figure 3. Top: Cell Width = Solid X-Spacing x 2 & Cell Height = Solid Z-Spacing x 2 Bottom: Cell Width = Solid X-Spacing x 0.5 & Cell Height = Solid Z-Spacing x 0.5

When adding annotation to the diagram (Figure 4), be sure to set the Dimensions within the Display / Labeled Axes submenu to “Automatic” (Figure 5).

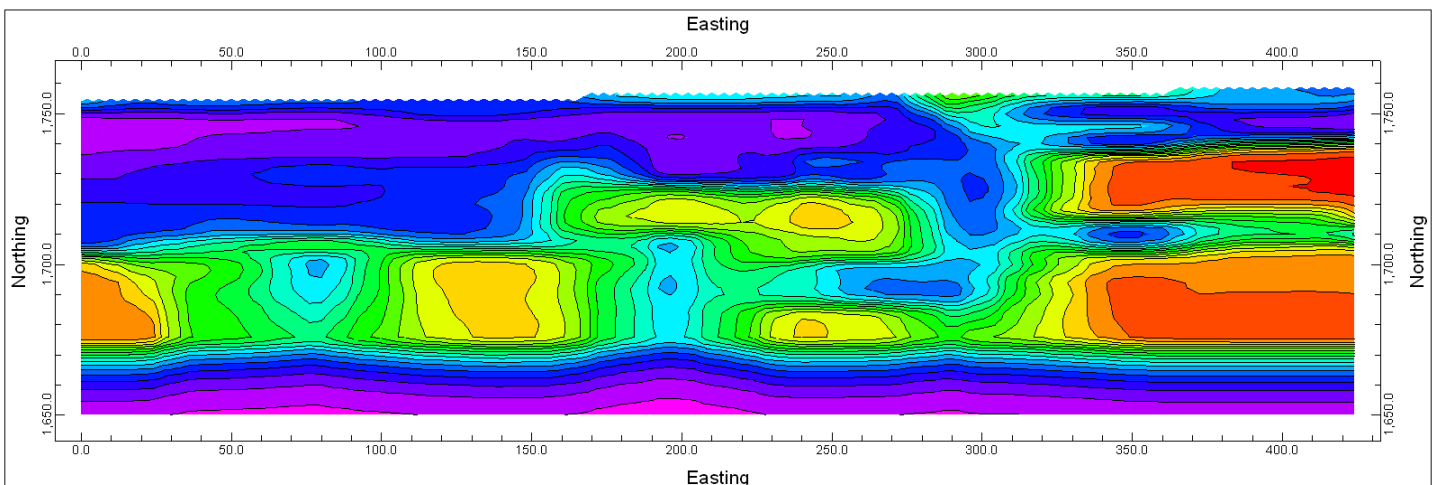


Figure 4

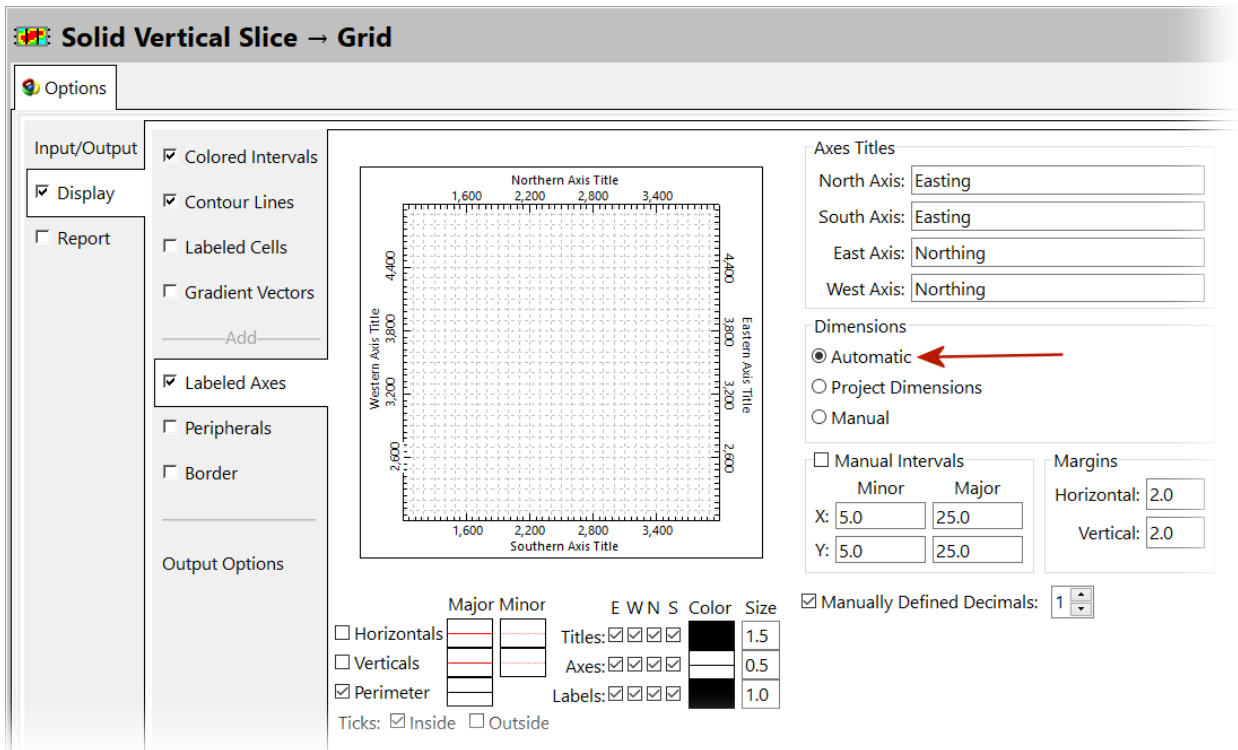


Figure 5

The Report sub-menu (Figure 6) includes options for saving the XYZG data to Rwdat, CSV, ASCII Text, and RTF (MS-Word) formats.

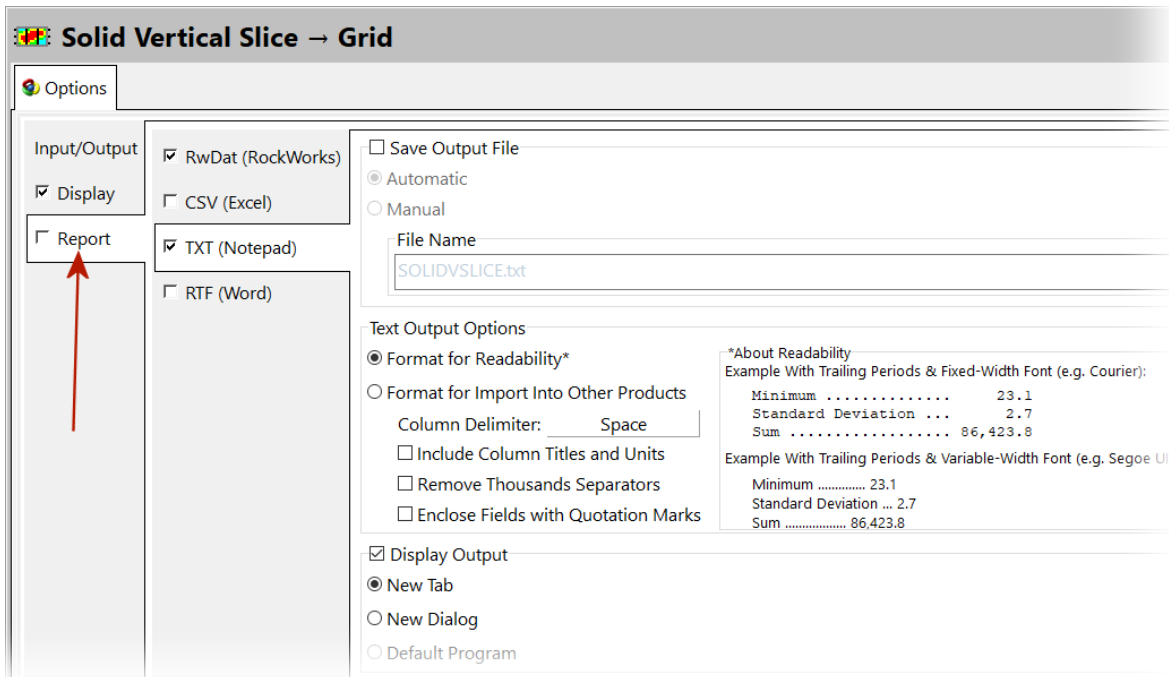


Figure 6

Null value cells that represent the air above a solid model or cells outside the model will be listed, or omitted altogether, based on a user-defined text string (Figure 7). This provides flexibility when exporting the grid data to non-RockWare programs in which the value assigned to null nodes is something other than the convention used by RockWare (i.e., Null = -1.0e27).

Solid Vertical Slice → Grid

Options

Input/Output

Input (Solid Model)
Uranium-235.rwmod

Output (Grid Model) ?
TEST.RwGrd

Vertical Slice Endpoint Coordinates ?

| Endpoint #1 (Left Edge) | | Endpoint #2 (Right Edge) | |
|-------------------------|----------------|--------------------------|----------------|
| Easting (X): | 481875 Meters | Easting (X): | 482175 Meters |
| Northing (Y): | 4400025 Meters | Northing (Y): | 4399725 Meters |

Grid Cell Dimensions ?

Horizontal (X) Cell Width: 4 Meters

Vertical (Y) Cell Height: 2 Meters

Include Null G-Values Within Report

Text Used To Indicate Null G-Value: N/A

Figure 7