Depth Map by Average Velocity Map

Tools > Depth Conversion > Depth Map by Average Velocity Map

In the **Depth Map by Average Velocity Map** dialog box you can apply an existing time surface (grid or horizon) to an existing average velocity map.

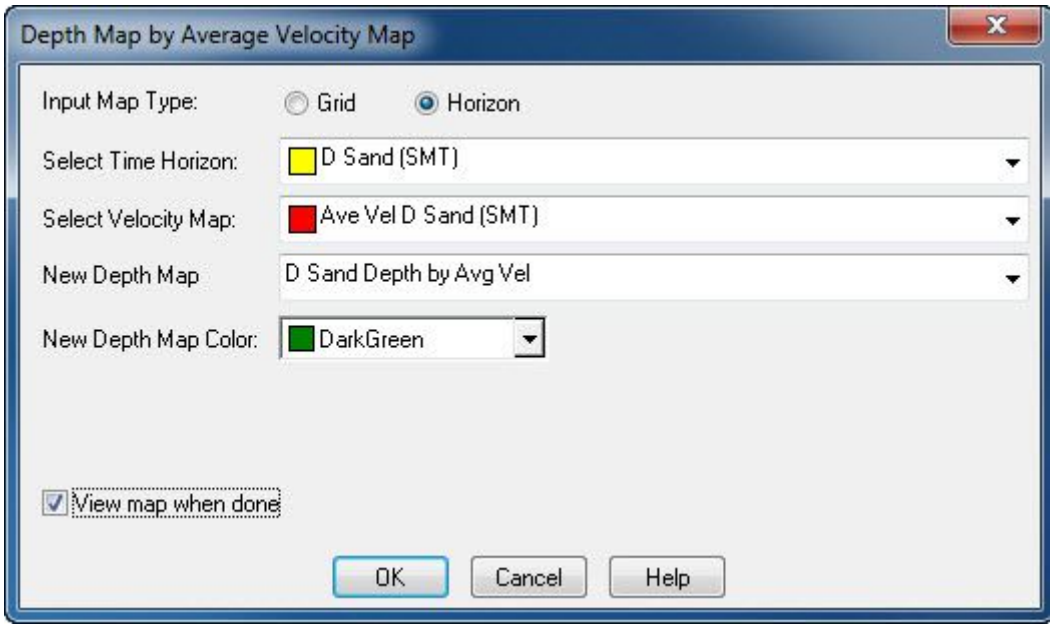
A depth map is generated from depth control points, or time-average velocity pairs along the time surface.

This is accomplished by multiplying the average velocity values by the corresponding time surface values. The depth control points are then gridded to produce a depth map.

The resulting depth map will be referenced to the seismic datum.

Tip: If desired, use the Extended Math Calculator to convert the TVD (Seismic) depth grid to Subsea values. Enter the formula [seismic datum elevation for project] – [the depth grid of interest]. The result is a Subsea depth grid.

Whether the input is a horizon or a grid, the output will be a grid **TVD (Seismic)** in feet or meters.



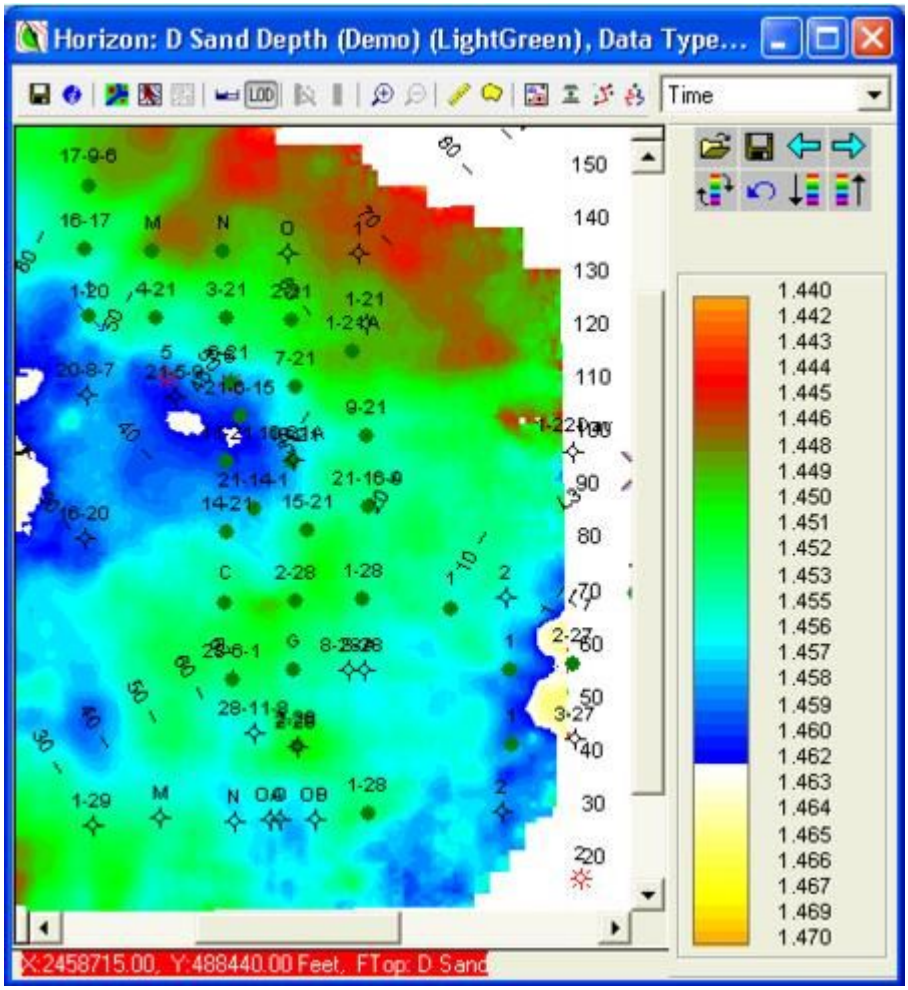
The **Depth Map by Average Velocity Map** dialog box contains the following elements:

- **Input Map Type**
  - **Grid**—select if the input map type is a grid.
  - **Horizon**—select if the input map type is a horizon.

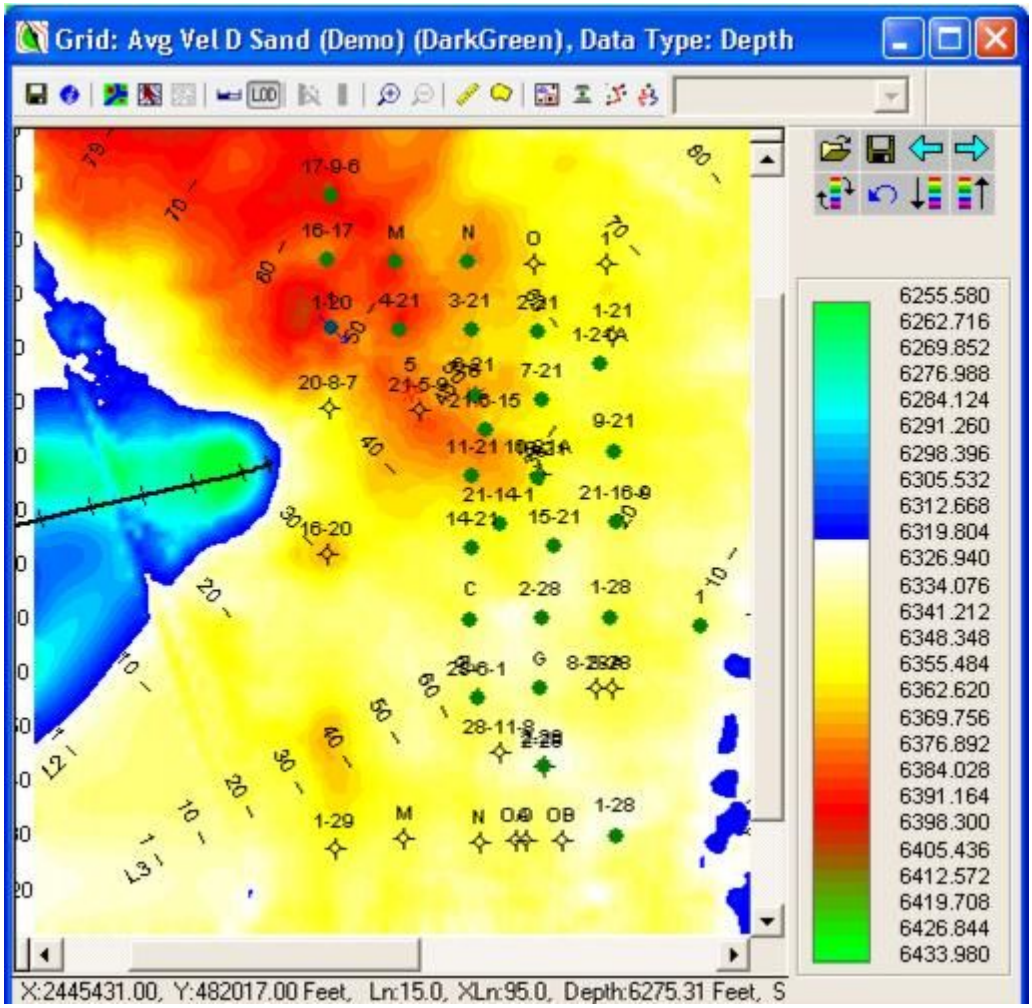
- **Select Time Horizon/Grid**—displays the input time/grid surface that will be converted to depth. Use the down arrow to select the time horizon or grid that will be used to calculate the depth points.
- **Select Velocity Map**—displays the input average velocity map that will be used to convert the time surface to depth. Use the down arrow to select the average velocity map that will be used to calculate the depth points. Only ***Velocity (Time)** grid data types appear in this list.
- **New Depth Map**—displays the output grid name. Enter (type) a new depth surface name, or use the down arrow to select an existing depth grid for the output. If an existing grid is selected, then it will be overwritten. Only ***Depth (Depth)** grid data type appear in this list.
- **New Depth Map Color**—use the down arrow to display the color palette from which you can select a display color for the new depth map.
- **View map when done**—click to display the calculated depth map in a new base map. When unchecked, the resulting depth map does not display on a base map but is available in the Project Tree.
- **Output Map Type**—specifies whether the output depth map is a **Grid** or **Horizon**.
- **OK**—accepts specified values, closes the **Depth Map by Average Velocity Map** dialog box and opens the Grid: Specify Grid Parameter (for Velocity/Depth Map) dialog box if the output is a grid.

Warning: Edited contours *must* be regridded before constructing a new Depth Map by Average Velocity Map.

Example Maps



The **D Sand Horizon** with time values from 1.440 to 1.471 seconds is displayed in the figure immediately above.



The **D Sand Depth Map** with values of 6,255.580 to 6,433.983 feet is displayed in the figure immediately above.

Tools Menu : Depth Conversion Tool : Depth Map by Average Velocity Map

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