



Tools Menu : [Depth Conversion Tool](#) : Depth Map by Shared T-D Chart

Depth Map by Shared T-D Chart

Tools > Depth Conversion > Depth Map by Shared T-D Chart

In the **Depth Map by Shared T-D Chart** dialog box you can apply an existing time surface (grid or horizon) to a selected shared time-depth chart, and generate a depth map from depth control points or from time-velocity pairs along the time surface.


The program locates the time surface values along the time-depth chart slope and retrieves the corresponding **TVD (Seismic)** depth value. The depth control points are then gridded to produce a depth map.

The shared **T-D charts** are created in the **Time-depth Charts** dialog box.

The output is either a grid or horizon in **TVD (Seismic)** feet or meters. If the output is a grid, then a control point file *.cpt is also produced.

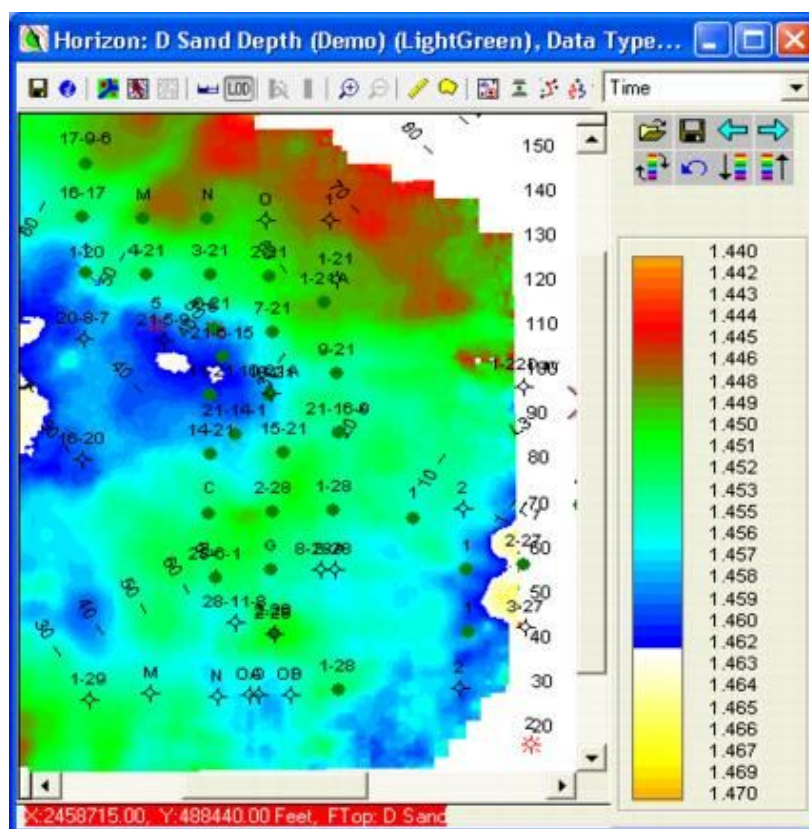
The **Depth Map by Shared T-D Chart** dialog box contains the following elements:

- **Input Map Type**—specifies whether the input time surface is a **Grid** or **Horizon**.
- **Select Time Horizon/Grid**—is the input time 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 Shared T-D Chart**—lists available shared time-depth charts. Shared means that the time-depth chart is shared by multiple wells. Click the down arrow to select an input shared time-depth chart.
- **New Depth Grid/Horizon**—is the output horizon or grid name. Enter a new depth surface name, or

use the down arrow to select an existing horizon or grid for the output. If an existing horizon is selected, then the Depth attribute  Depth will be appended to the horizon. If an existing grid is selected, then it will be overwritten.

- **New Depth Grid/Horizon Color**—sets the display color for the new depth map. Use the down arrow to select a color from the color palette. If an existing horizon is selected from **New Depth Horizon**, then the color is not applied.
- **View map when done**—when checked, automatically displays the calculated depth map in a new base map. When unchecked, the resulting depth map will not display on a base map but will be available in the Project Tree.
- **Output Map Type**
 - **Grid**—select to specify Grid as the output map type.
 - **Horizon**—select to specify Horizon as the output map type.
- **OK**—accepts specified values, closes the **Depth Map by Shared T-D Chart** dialog box and opens the [Grid: Specify Grid Parameter \(for Velocity/Depth Map\)](#) dialog box if the output is a grid.

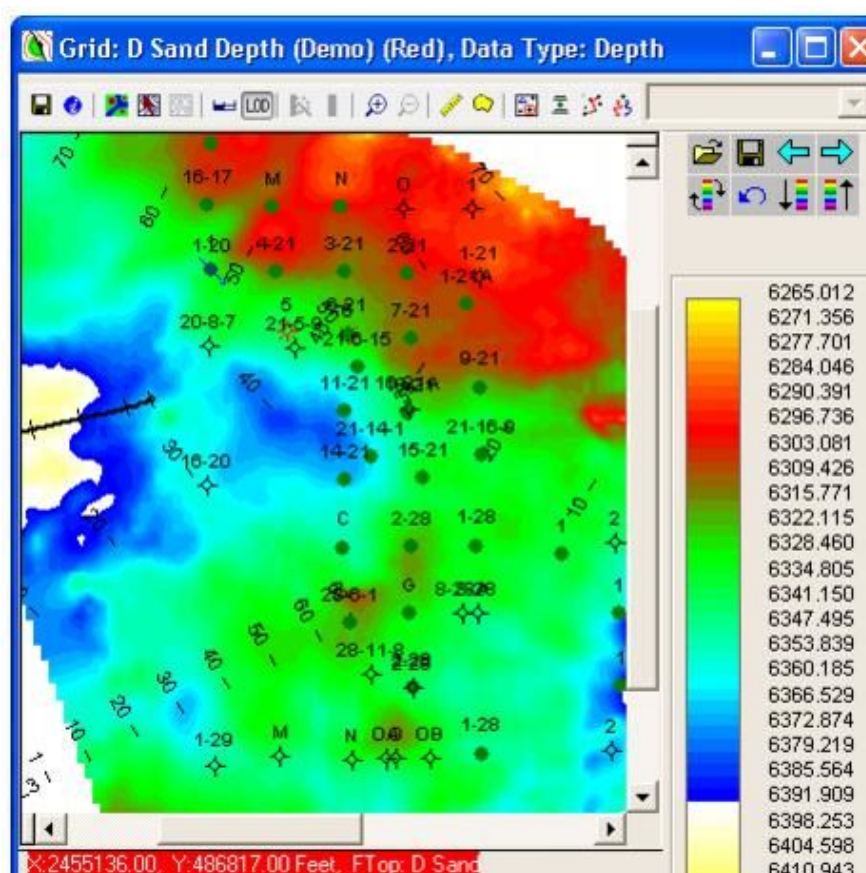
Example Maps



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

MD(Feet)	Time(2-way)
-48.00	0.000
563.00	0.265
970.00	0.365
1401.00	0.465
1814.00	0.565
2253.00	0.665
2729.00	0.765
3216.00	0.865
3727.00	0.965
4247.00	1.065
4744.00	1.165
5244.00	1.265
5791.00	1.365
6352.00	1.465
7003.00	1.565
7749.00	1.665
8118.00	1.705

A Shared TD time-depth chart is displayed in the figure immediately above. The slope of the red time-depth pairs is used to calculate the depth for the horizon time samples. The horizon time range of 1.440 to 1.471 is within the range of the red pairs.



The **D Sand Depth Map** with values of 6,262.320 to 6,431.450 feet is displayed in the figure immediately above.

To review the calculated values, check the project directory for a control point file named **<grid name>.cpt**, which is created when wells are used in depth map calculation, and open this file using Notepad.

The control point file contains the X, Y, depth, depth (rounded), and time for each depth control point.

Renaming the grid does not rename the *.cpt file.

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