NExT
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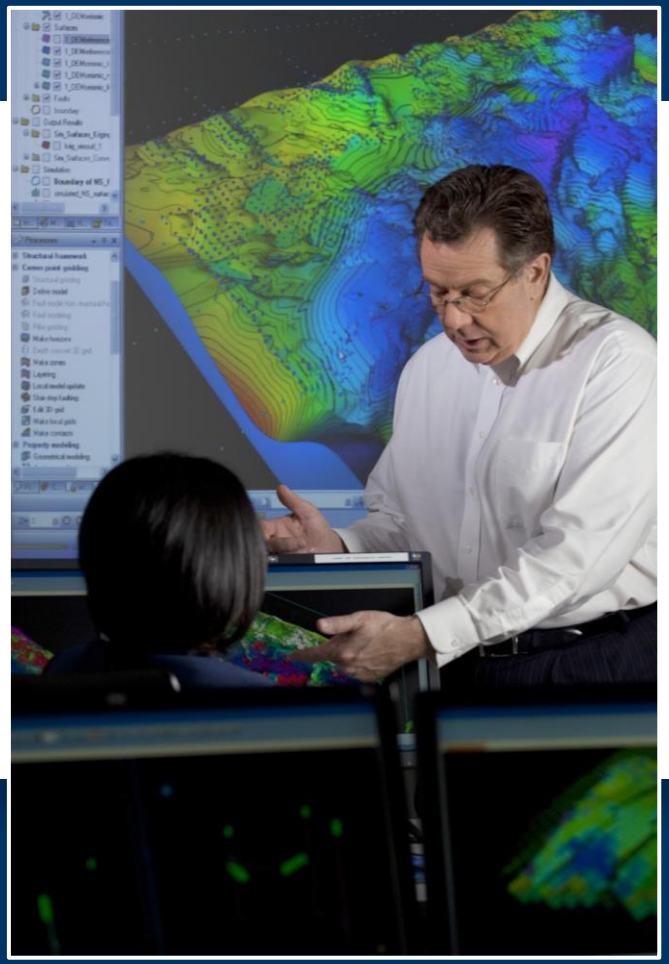
Petrel Geophysics
Module 12: Mapping

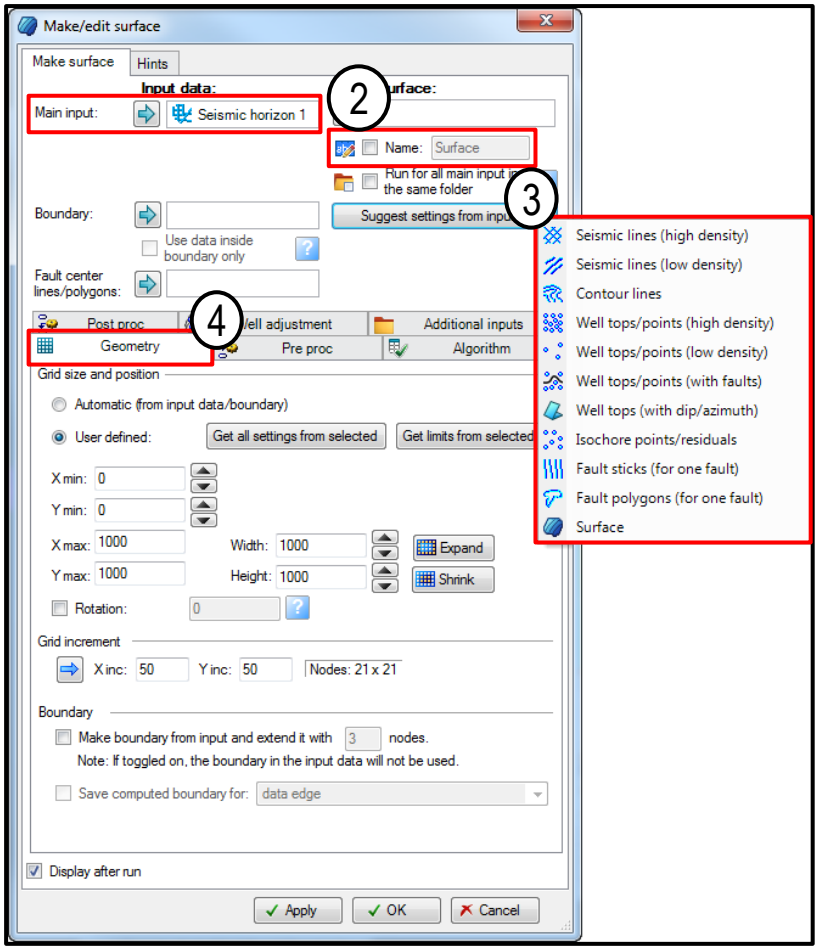
Lesson 1: Horizon interpretation surface conversion and surface attributes generation



Make surface (1)

1. On the display right-click a horizon interpretation and in the mini toolbar, click *Make surface*.

2. Insert the interpreted horizon into Main input.
3. Click *Suggest settings from input*.
4. On the **Geometry** tab, specify the grid outline and resolution.



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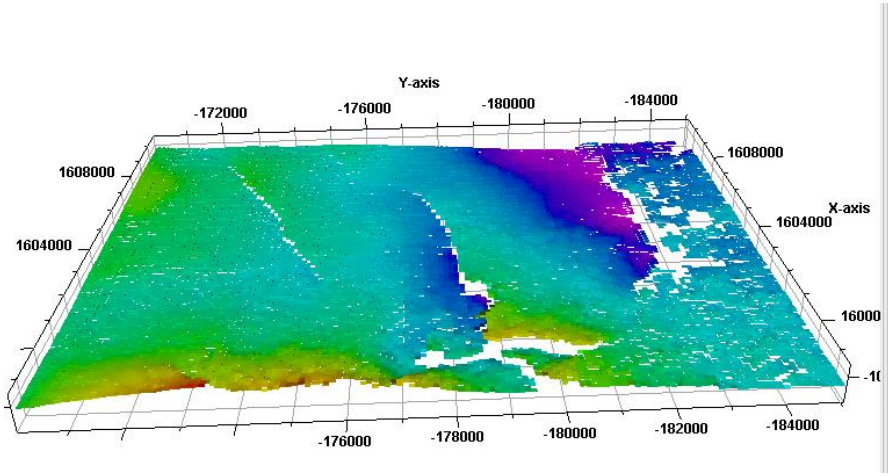
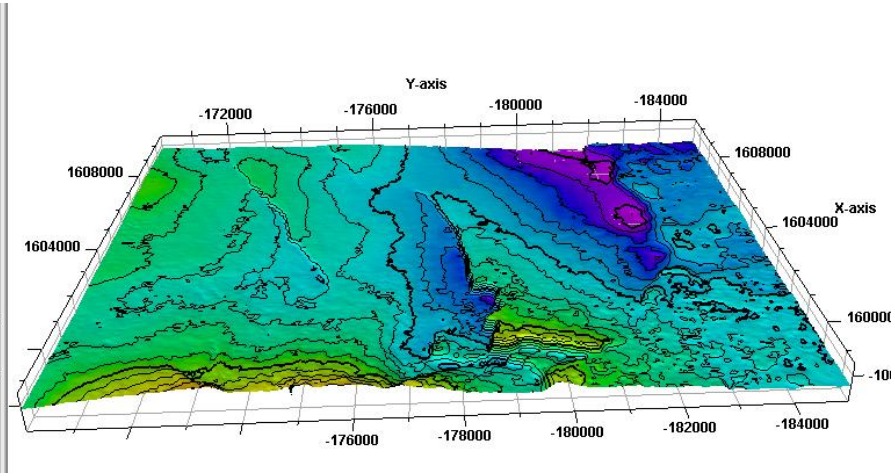
Make surface (2)

Originally interpreted horizon



Surface created from horizon interpretation



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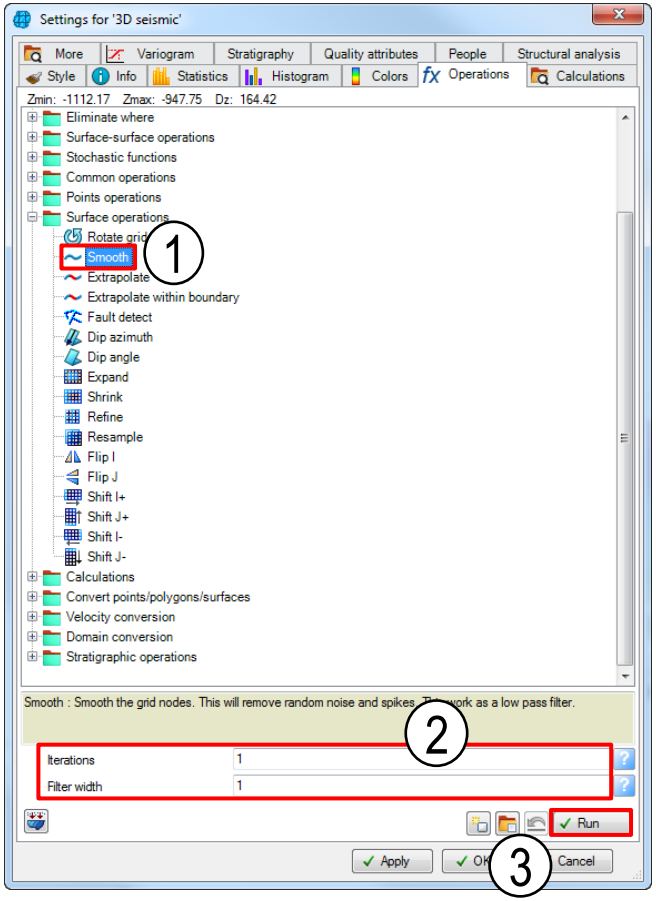
Surface operations: Smooth (1)

1. In the **Surface operations** folder on the **Operations** tab of the **Settings** dialog box for the Surface, select Smooth.
2. Define Iterations and Filter width parameters.
3. Click *Run*.



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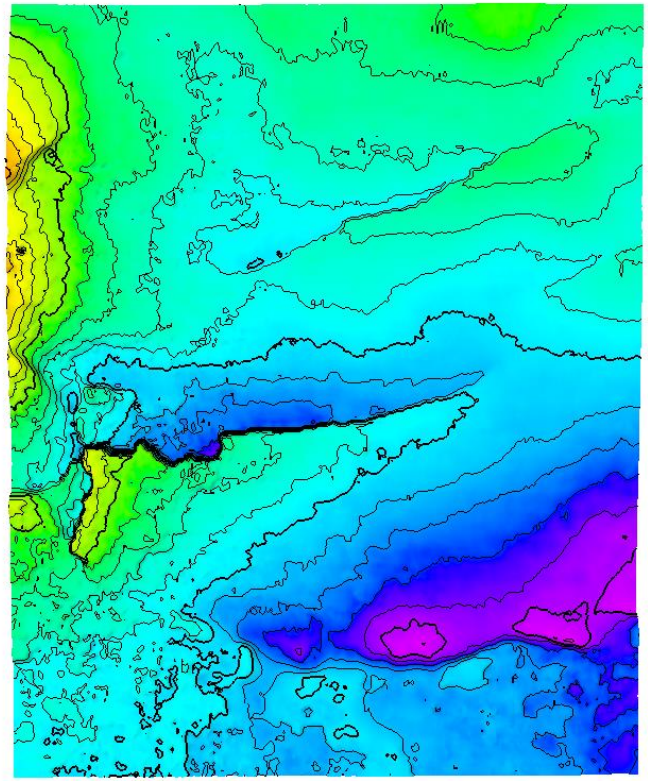
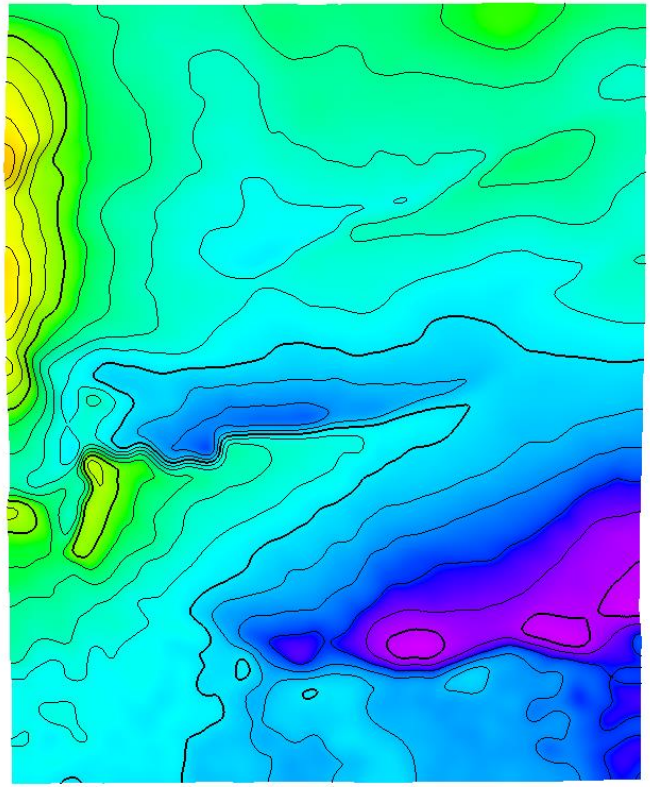
Surface operations: Smooth (2)

Original surface for smoothing.

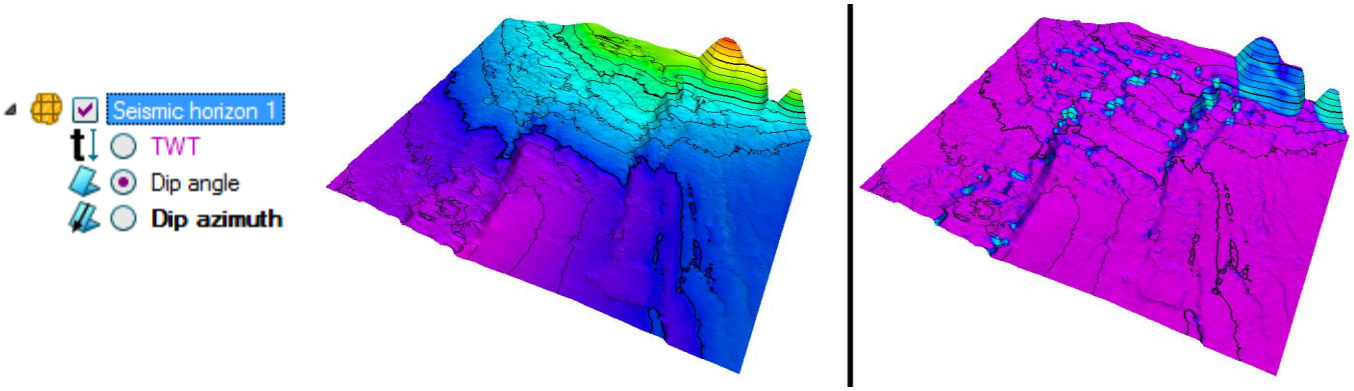


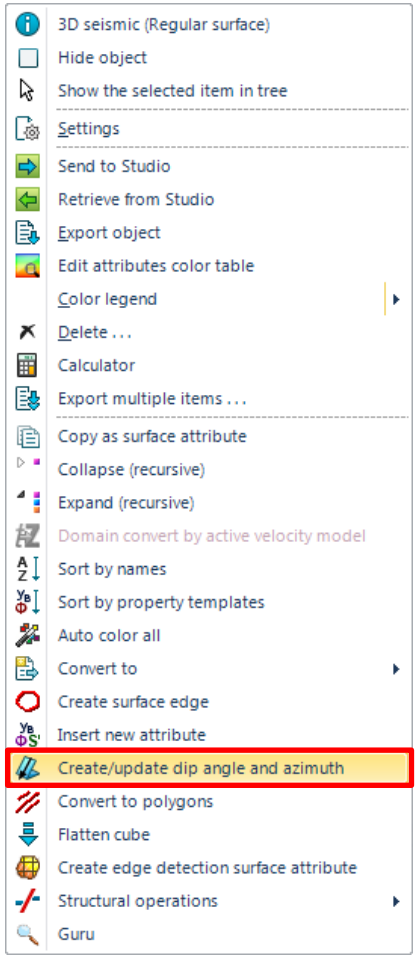
Surface after smoothing process.



Attribute map based on surface operation

1. Display an unsmoothed surface in a **3D window**.
2. Right-click the surface and click *Create/Update dip angle and azimuth.*
3. Expand the surface in the **Input** pane to display new surface attributes.





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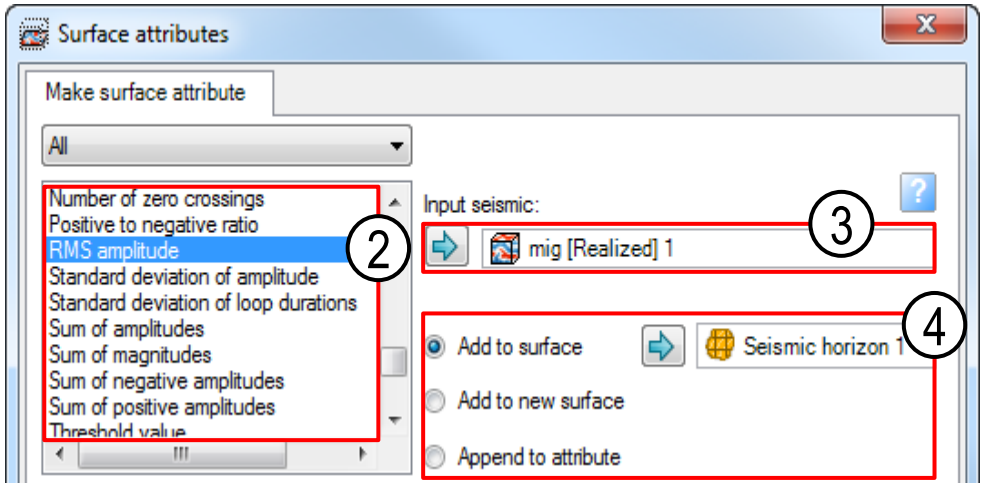
Generate surface attributes (1)

1. Display the surface in your window, right-click and click *Surface attributes* in the mini toolbar.

2. Choose a surface attribute from the list in the **Surface attribute** dialog box.
3. Choose Input seismic from the **Input** pane.
4. Choose from the options to create new, add, or append to existing attribute.



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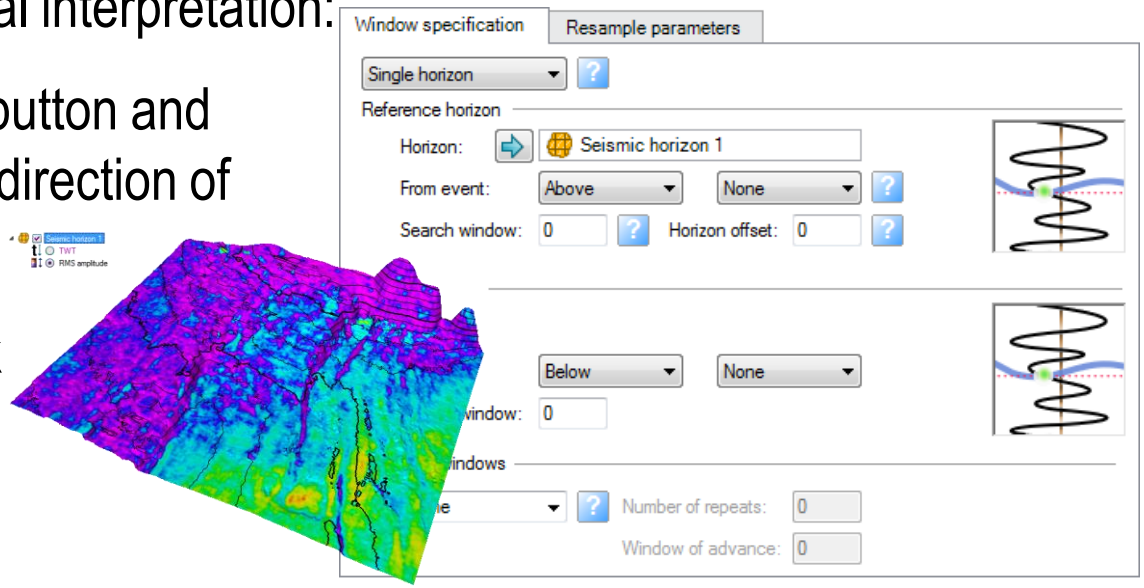
Generate surface attributes (2)

5. Define the Window specification or specify the horizons to use for calculating the attribute.
6. Expand the surface in the **Input** pane to display the attribute.
7. If you use guided or manual interpretation:
   a. Hold down the mouse button and move the cursor in the direction of the interpretation.
   b. Press N or double-click to break the pick.



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Exercises