

Demonstration Video

Surfer – Part 2

Opening data, Creating grid file, Contour maps, Contour Properties, and Saving

PART 2

1. Introduction
 2. Opening Data
 3. Creating A Grid File
 4. Creating a contour map
 5. Changing contour map properties
 6. Saving data and Map
-

1. In this Part I will Demonstrate how to open a Data File, Create A Grid file, Create a contour map, Change the properties of the contour map, and Save the project file.
2. To view the data in the worksheet, go to File | Open, navigate to the samples folder, select the data you wish to load from the list; I will select the file Tutorws.dat from the Surfer Samples folder, and click on Open.
 - a. The data can now be edited in the worksheet window.
 - b. When you are done viewing and editing the data in the worksheet, close the worksheet by choosing File | Close
3. Surfer takes scattered data and grids it to create a grid file for use in contour maps, 3D surface maps, and several other map types. To create a grid file go to Grid | Data, select the data from the appropriate file, and click Open. Once again use the Tutorws.dat file located in the Surfer Samples folder.
 - a. The Grid Data dialog box will open, this box allows you to choose the Gridding Method, The destination for the file, and the Grid Geometry.
 - b. If the Grid Report checkbox is checked Surfer will generate a report containing information about your data and the grid generated.
 - c. For this demonstration the default settings will be fine, so click on OK.
4. A Contour map can now be generated based on the grid that was just created.
 - a. To create a contour map first go to Map | Contour Map | New Contour Map
 - b. Select the appropriate file from the list and click open, for this demonstration I will select the Tutorws.grd file.
 - c. The contour map will now be visible in the Plot window.
 - d. To get a better view of the map I will click view | fit to window.
5. Now I will demonstrate how to change the properties of an object.
 - a. To edit the properties of the contour map you can double click on the map in the plot window, double-click on the name in the object manager window, or go to edit | Properties.

- b. In the properties dialog box you can change properties such as the contour levels, the view, the scale, the limits of the data, and the background properties.
 - c. I will start by changing the contour levels. To change the contour levels I will click on the levels tab in the properties dialog box. You can change Contour Interval, Contour line styles, Contour fill colors, and Hatch settings in the levels tab.
 - d. Clicking on the level heading on the left hand side allows you to change the minimum contour value, maximum contour value, and the contour interval. I will leave the minimum and the maximum at the default settings, change the interval to 10 and click ok and click apply to update the map and view the changes.
 - e. Now I will change the fill color of the contours by clicking on the fill heading in the middle of the levels tab.
 - f. The Fill Pattern allows you to change the way the contours are filled either solid or by a pattern. The foreground box allows you to change the foreground color; the background box allows you to change the background color that would show through if a pattern is selected.
 - g. In the Foreground color box you can select the new color you wish to use, more than one color can be used to create a color spectrum.
 - h. To insert another color node in the color spectrum box hold the ctrl key while you click where you want the node.
 - i. To delete a node select the node and press the delete key.
 - j. To move a node select the node and drag it to the left or right.
 - k. I am going to create a 3 color spectrum from blue to green to red, and then click apply to view the changes.
 - l. Now I will change the scale properties by selecting the scale tab. In the scale tab you have options to change the scale of both the x and y axis. The z axis scale can be changed if the map is a wire frame or surface map. To change the scale click on the number in the x scale box and type in the new number you wish, I will use 2. if the proportional xy scaling box is checked the y axis will be updated automatically.
6. Now I will demonstrate how to save a file.
- a. Go to File | Save
 - b. Select the location where you wish to save the file, and type the name of the file in the Filename Box, and click Save. I will save it as surferpart2.srf
 - c. This concludes part 2 of the surfer demonstration videos. Part 3 will demonstrate Modifying contour labels, creating post maps, and overlay maps.