

Frequently Asked Questions

1. What is a Surface Chart?

Answer: A Surface chart shows a three dimensional surface that connects a set of [data points](#). A Surface chart is useful to find optimum combinations between two sets of data. Like, in a topographic map, the colours and patterns in a Surface chart indicate areas that contain the same range of values.

2. What is a Heat Map?

Answer: A heat map is a two-dimensional representation of data in which values are represented by colours. A simple heat map provides an immediate visual summary of information. More elaborated heat maps allow the viewer to understand complex data sets. It indicates the level of [activity](#), usually using darker colours like small dark grey or black squares (pixels) to indicate higher or larger values, and lighter colour squares to indicate smaller values.

3. What do you mean by series in a combination chart?

Answer: Series by in the combination chart is the way to divide the data into slices. The slices in the combination chart are called series and can be defined as bars or lines as well as being coloured separately.

4. How contour plot is formed?

Answer: The contour plot is formed by:

- ♦ Vertical axis: Independent variable 2
- ♦ Horizontal axis: Independent variable 1
- ♦ Lines: iso-response value

5. How Pseudocolour chart is different from contour chart?

Answer: Pseudocolour chart is much clear in colour than gray scale. But the only limitation is colour is expensive.

6. What is a Contour Chart?

Answer: A contour chart is a graphical technique for representing a 3-dimensional surface by plotting constant z slices, called contours, on a 2-dimensional format. That is, given a value for z, lines are drawn for connecting the (x, y) coordinates where that z value occurs.

7. List the different kinds of Heat Maps?

Answer: Different kinds of eat Maps are:

- ♦ Web heat map
- ♦ Biology heat map
- ♦ Tree map
- ♦ Mosaic map

8. What are the limitations of surface charts?

Answer: Surface chart has some limitations, they are:

- ♦ Surface charts are not true X-Y-Z charts. X and Y are not treated as numeric data, and must consist of regularly defined, evenly spaced categories. Exactly one Z value is needed for each X-Y pair.
- ♦ The surface calculations are rudimentary, drawn by connecting Z values at X-Y nodes with straight lines and planar sections. A saddle point is not accurately drawn if it occurs between the X-Y nodes.
- ♦ The colour-filled surface charts do not allow transparency, which would help visualize hidden parts of the surface. (Perhaps Excel for the Mac allows this, but that's insufficient cause to trade in your Windows machine for a Mac.)

- ♦ The wireframe versions of the surface chart have too many visible line segments, showing both the boundaries marking different values and the lines connecting the nodes. They can only be hidden and displayed together; whereas it would have been a nice feature to show boundaries only, or formatted differently from node connectors.

9. What is a Mosaic Plot?

Answer: A mosaic plot is a tiled heat map for representing a two-way or higher-way table of data. As with tree maps, the rectangular regions in a mosaic plot are hierarchically organized. This means that the regions are rectangles instead of squares.

10. How filled contour chart is compared with standard contour chart?

Answer: Filled Contour Chart is much clearer in colour than gray scale, but colour is expensive as compared to standard contour chart.

11. What is a web heat map?

Answer: Web heat maps have been used for displaying areas of a Web page most frequently scanned by visitors. Web heat maps are often used alongside other forms of [web analytics](#) and [session replay](#) tools.

12. Explain how to format a surface chart.

Answer:

- ♦ On the Surface chart, make sure that the legend is displayed.
- ♦ In the legend, click the key for which you want to change the format.
- ♦ On the Format menu, click Selected Legend Key.
- ♦ On the Patterns tab, make the colour, border, or fill effect changes you want.
- ♦ Repeat step 2-4 for each level you want to format.
- ♦ To change the order of the data series in the chart, click the Series Order tab, click a series name in the Series order box, and then click the Move Up or Move Down buttons.
- ♦ To change the depth of the Surface chart, click the Options tab, and then type a value between 20 and 2000 in the Chart depth box.
- ♦ To add a 3-D shading effect to the Surface chart, on the Options tab, select the 3-D shading check box

13. What is a wireframe contour chart?

Answer: A variation of the Contour chart that appears in black and white is known as wireframe contour. A wireframe chart shows only the lines without any colour in the surface.

14. What is a 3-D surface chart?

Answer: This chart shows a 3-D view of the data, which could be imagined as a rubber sheet stretched over a 3-D Column chart. It is typically used to show relationships between large amounts of data.

15. Explain how to remove lines from a Surface Chart?

Answer: Steps to remove lines from surface charts are:

1. Click the chart legend to select it.
2. Click the first legend key (that is the small coloured square).
3. Right-click and choose Format Legend Key.
4. In the Format Legend Key dialog box, click the Patterns tab.
5. Select none for the Border option, and click OK.