

XYZ Mesh

Company Gray Technical, LLC
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Product Support

The primary method of support for this product is provided by email.

Email your technical questions to support@graytechnical.com. Your problem will be replied to as soon as possible.

Operating Instructions

Usage

XYZ Mesh is used to convert X Y Z data points into a MESH configuration for the use of 3-D Surface Plots, Wireframe 3-D Surface Charts, Contour Graphs and Wireframe Contours. XYZ Mesh will allow the user to select between exporting the data into a CSV or copy it to the clipboard. The user can specify whether to have singular points converted into MESH configuration or have the singular points automatically converted into a curved MESH format for a true surface plot. XYZ Mesh can convert latitude and longitude points into X and Y coordinates.

Trial versions will only allow 5 lines of data to be converted.

XYZ Mesh has a maximum line count of 250 that can be converted.

Example of Adequate Data

X	Y	Z
-83.47748	37.5889	-1116.25
-83.605595	37.637056	-1092.86
-83.606151	37.638056	-1066.55
-83.605101	37.638775	-992.22
-83.609985	37.640423	-1096.13
-83.609598	37.641499	-995.51
-83.606783	37.640519	-1029.63

Processes

Importing X Y Z Data

To import X Y Z data simply copy the data points to your clipboard (Control + C) and paste them into the data table displayed in XYZ Mesh. To paste the data you can either use the shortcut key (Control + V) or you can right click on the table and select 'Paste'. Do not leave any empty spaces in the first row of the table, this will error out your conversion process.

Sorting

When converting X Y Z data into MESH format the original data will sometimes need to be sorted. In most cases the X and Y values will arrange themselves correctly with the default 'Auto sort'. However if your orientation of the data needs to be a specific direction you can specify this by toggling between the 'Sort by X value' and the 'Sort by Y value'. If sorting is not needed you can select the 'Do not sort' option.

Convert Data Type Options

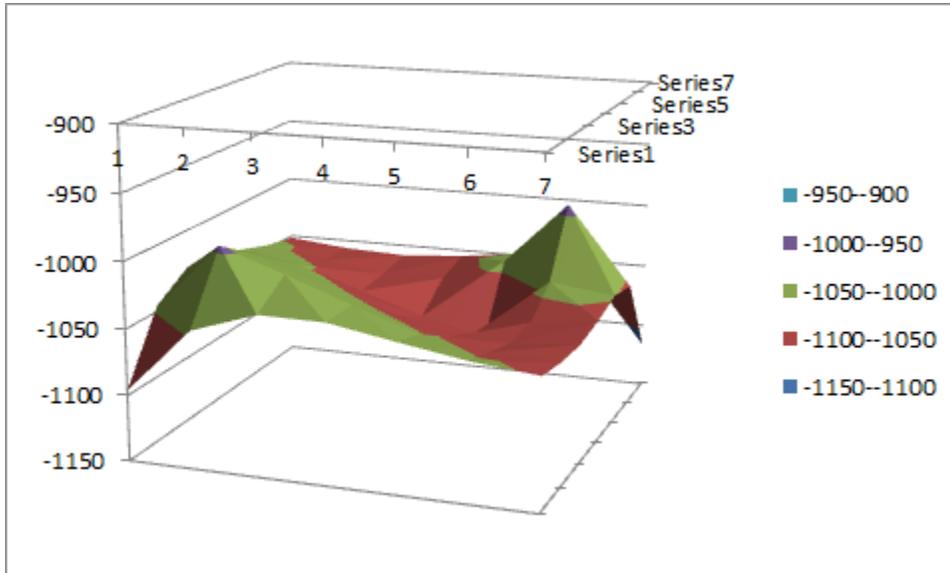
XYZ Mesh will allow the user to select between 'Convert Auto Curve' and 'Convert Single Points'. These two options can be toggled at the bottom of the main window. The differences of each are shown below. All charts in this document are graphed in Microsoft Excel. XYZ Mesh does not possess any graphing capabilities.

Original Data:

-83.609985	37.640423	-1096.13
-83.609598	37.641499	-995.51
-83.606783	37.640519	-1029.63
-83.606151	37.638056	-1066.55

-83.605595	37.637056	-1092.86
-83.605101	37.638775	-992.22
-83.47748	37.5889	-1116.25

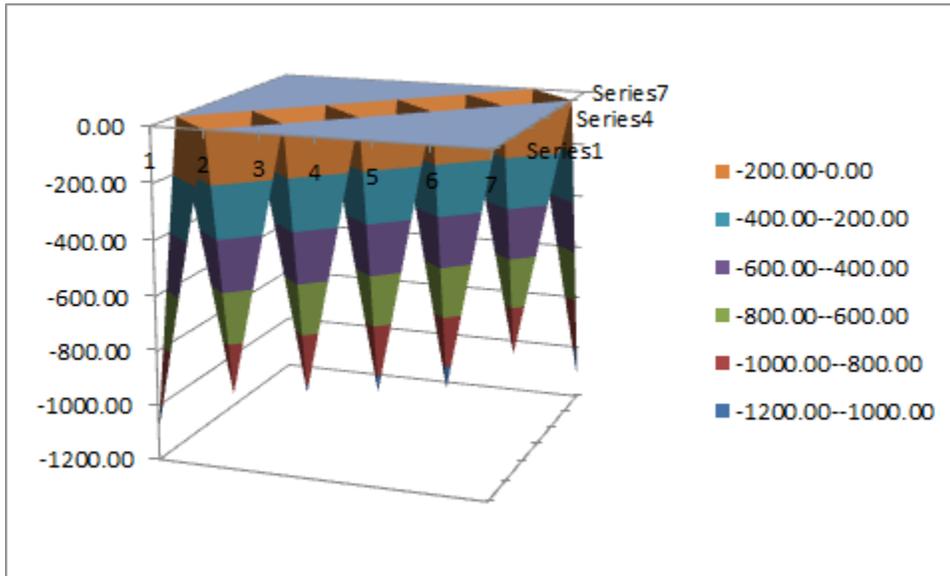
Convert Auto Curve (used for curved plane surface plots)



Graphed in Microsoft Excel – XYZ Mesh does not possess any graphing capabilities.

	37.64042	37.6415	37.64052	37.63806	37.63706	37.63878	37.5889
		-					-
-83.61	-1096.13	1045.82	-1029.2	-1029.76	-1038.44	-1046.63	1051.68
-							-
83.6096	-1045.82	-995.51	-1012.57	-1030.33	-1047.12	-1054.81	1056.73
-							-
83.6068	-1029.2	1012.57	-1029.63	-1048.09	-1063.9	-1062.51	1058.64
-							-
83.6062	-1029.76	1030.33	-1048.09	-1066.55	-1079.71	-1061.12	1054.77
-							-
83.6056	-1038.44	1047.11	-1063.9	-1079.71	-1092.86	-1042.54	1048.44
-							-
83.6051	-1046.63	1054.81	-1062.51	-1061.12	-1042.54	-992.22	1054.32
-							-
83.4775	-1051.67	1056.72	-1058.63	-1054.76	-1048.39	-1054.24	1116.25

Convert Single Points (used for single surface plots)



Graphed in Microsoft Excel – XYZ Mesh does not possess any graphing capabilities.

37.64042	37.6415	37.64052	37.63806	37.63706	37.63878	37.5889
-83.61	-1096.13					
-						
83.6096	-995.51					
-						
83.6068		-1029.63				
-						
83.6062			-1066.55			
-						
83.6056				-1092.86		
-						
83.6051					-992.22	
-						
83.4775						1116.25

Converting Data

With XYZ Mesh you can convert latitude and longitude coordinates into X Y values with the 'Convert Lat Long to X Y' button, convert X Y Z data to MESH and copy the MESH data to your clipboard by choosing the 'Convert to MESH Clipboard' button, or convert X Y Z data into MESH and save the data as a CSV data table with the 'Convert to MESH CSV' button. In any of the above cases you can click the 'Expand' button to view your converted data in an additional data table if desired.

Saving Data

By right clicking on either X Y Z or MESH data tables you will be given options to copy all data in that data table to the clipboard or export to CSV. You can also highlight the desired cells and copy the content to your clipboard with the shortcut key (Control + C).

Clearing Data

You can clear all the data on the data tables by clicking the 'Clear All' button located under the 'Expand' button. You can also right click on either data tables; select 'Clear All' to accomplish the same task. If you would like to convert multiple set of data at a given time you will need to 'Clear All' each time before importing more data.

Progress Status

During execution of tasks XYZ Mesh will display the current progress in the bottom left portion of the main window, above the 'Expand' button.

Troubleshooting

- Cell selecting/pasting error
 - When pasting multiple values you must make sure that the cell is HIGHLIGHTED and not SELECTED. Highlighted cells will show the entire cell as being blue, while selected cells will show only the Type Cursor or Text as being blue. To resolve this issue simply click another cell, and then single click back on your original cell to highlight it.
- 0's in the X or Y plane

