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HyperWorks

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HG3D-2000: Defining Surface Plots

In this tutorial, you will learn how to create surface plots.

Tools

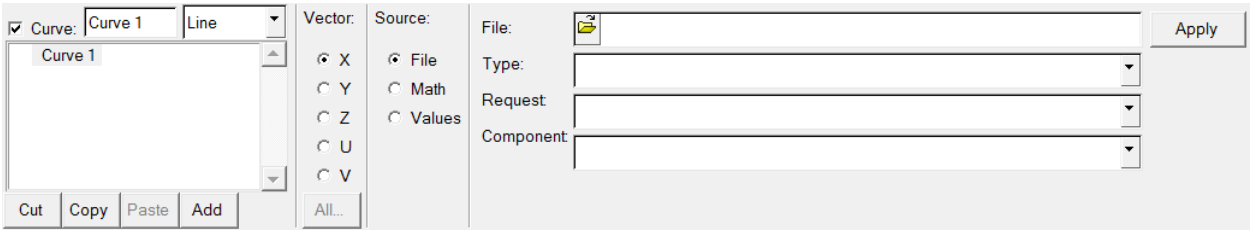
The **Define Curves** panel can be accessed one of the following ways:

- On the toolbar, click the ***Define Curves*** panel icon, 

Or

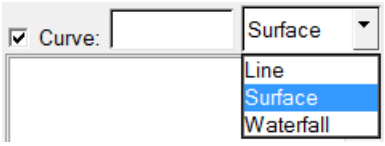
- From the menu bar, select ***Curves > Define Curves***

The **Define Curves** panel enables you to create new Surface plots. New data can be mathematically defined using the program's curve calculator or entered as values.



Step 1: Creating a Surface Plot from a math expression

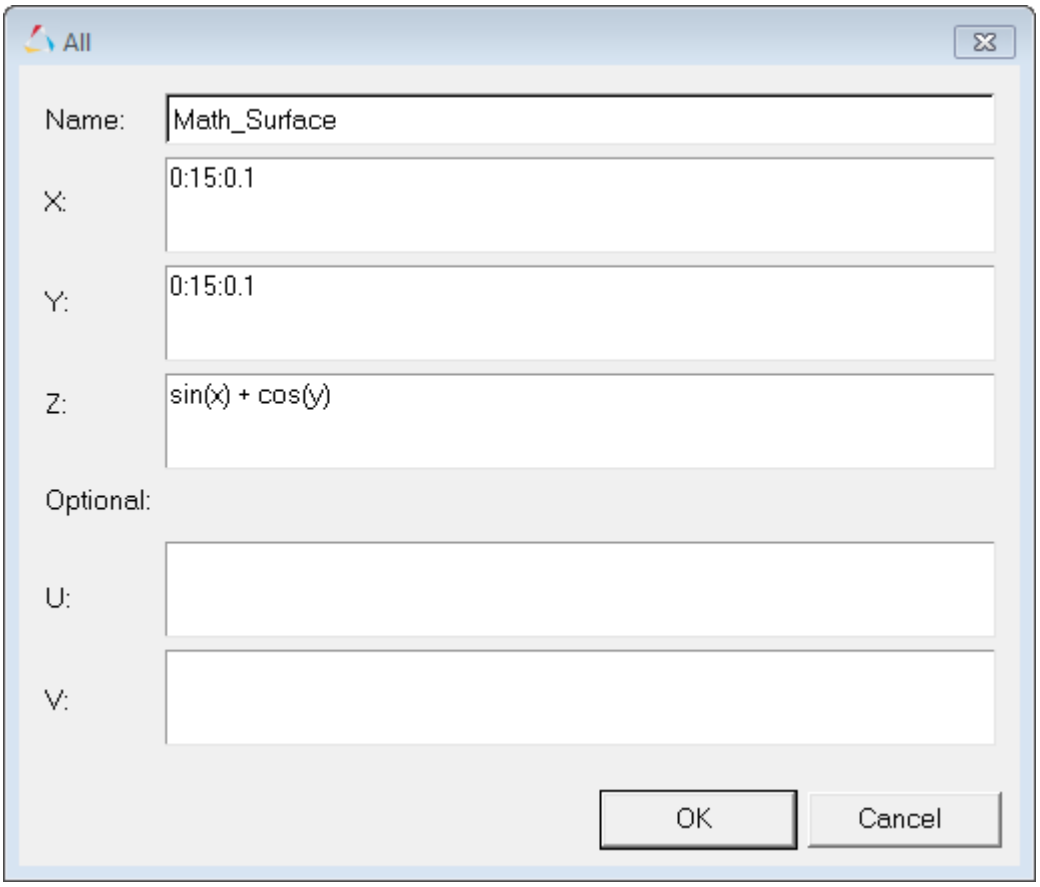
1. From the menu bar, select ***File > New > Session***.
2. Click on the **Define Curves** icon,  , to access the panel.
3. Select ***Surface*** from the pull-down menu.



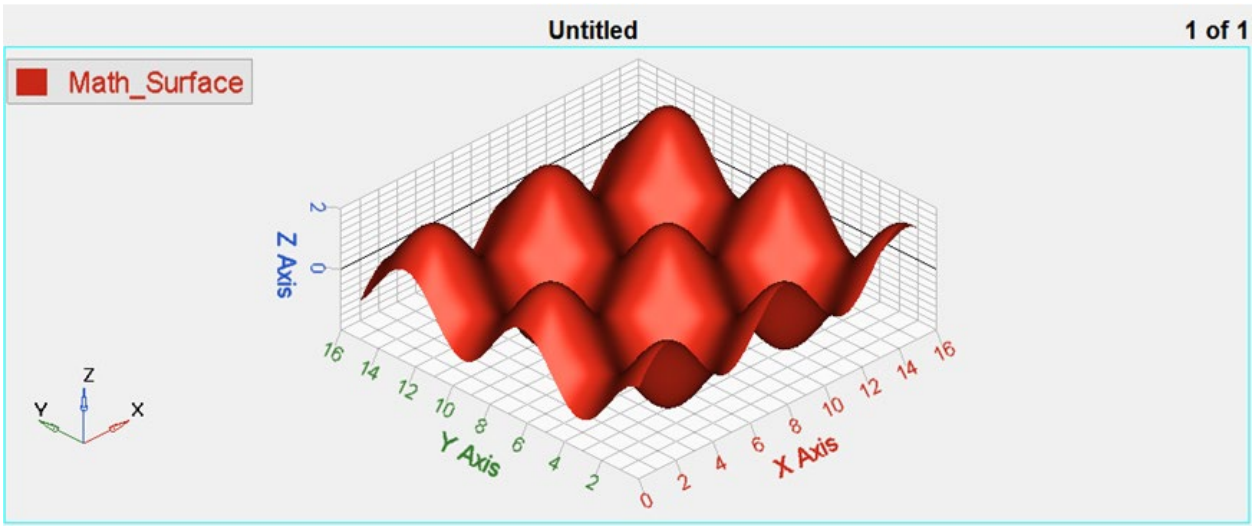
4. Click ***Add*** under the **Surface** list. A surface labeled **Surface1** is added to the list.
5. In the text box rename **Surface 1** as `Math_Surface` and press ENTER.

   The new name is now displayed in the list and in the legend.
6. Verify that the **Source** type is set to ***Math***.
7. Under **Vector*:*** click ***All***.
8. Set **X** to `0:15:0.1`.
9. Set **Y** to `0:15:0.1`.

10. Set **Z** to `sin(x) + cos(y)`.



11. Click ***OK*** to close the window.
12. Click ***Apply*** to create the surface plot.



Step 2: Saving the Session as session file
`Curve_Attributes_Surface.mvw`

1. From the menu bar, select ***File > Save As > Session***.
2. Name the file as `Curve_Attributes_Surface.mvw`.
3. Click ***Save***.