

Creating Custom Plot Window Template in PSpice

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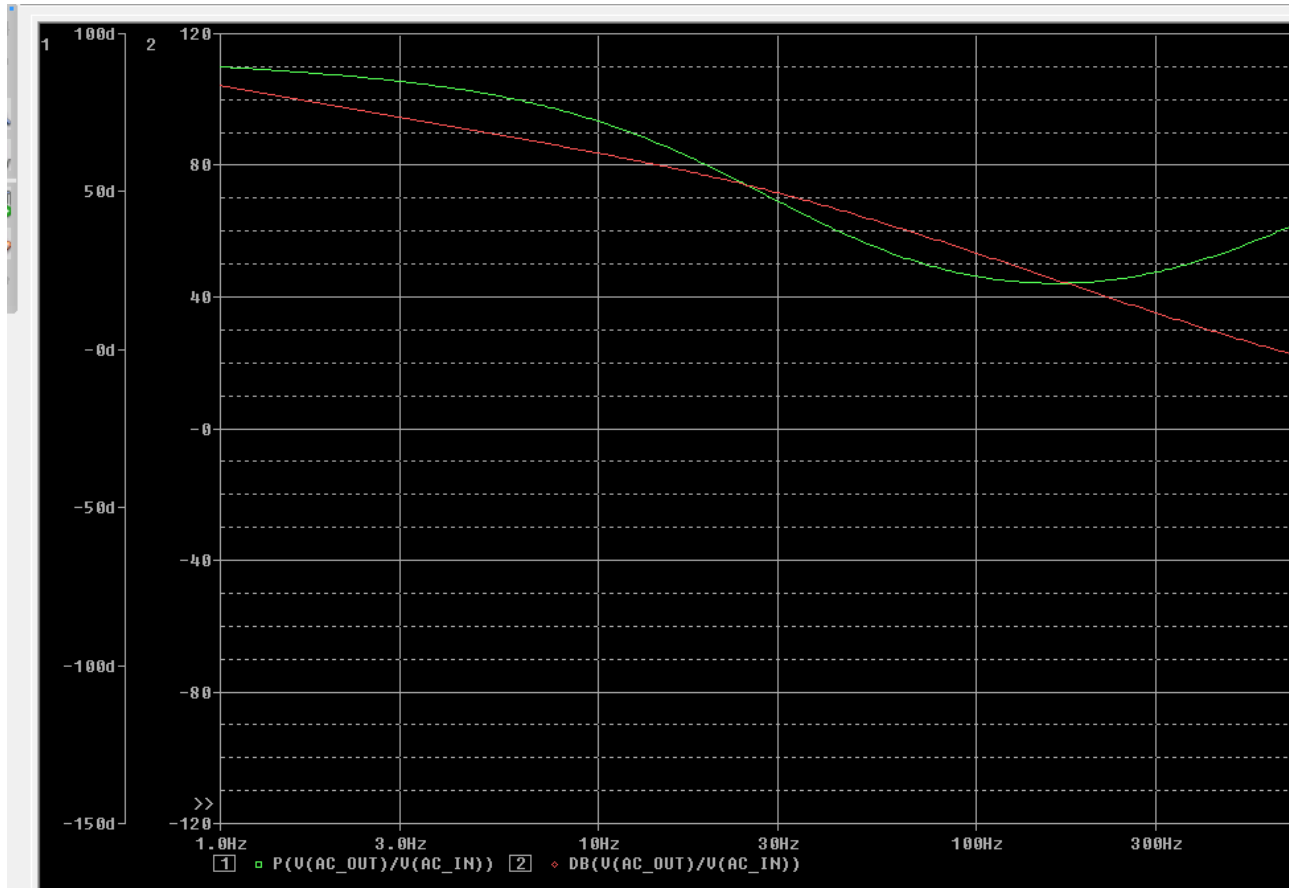
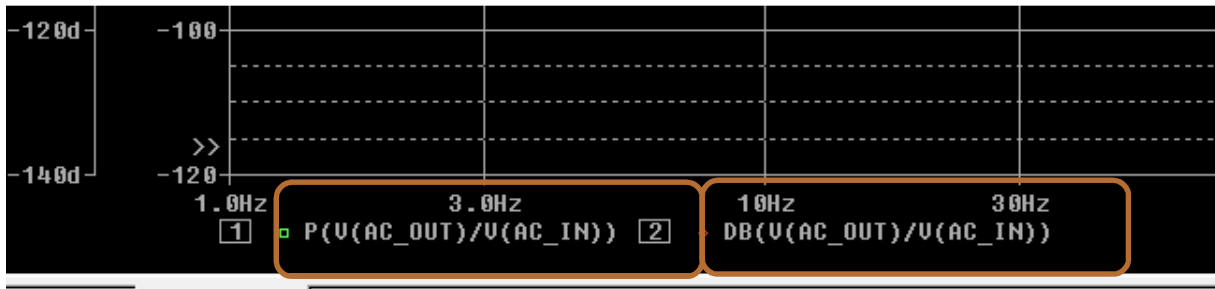
This document describes step by step process for creating a new plot window template in PSpice. User can then use this plot window template across the design. This is a very efficient way to create complete plot setting and reuse across the design. This can save a number of clicks for user.

Let's take an example to create bode plot for a transfer function. This is useful for the case where one need to generate a bode plot for transfer function = $V(\text{out})/V(\text{in})$ instead of creating bode plot for a single node voltage or current.

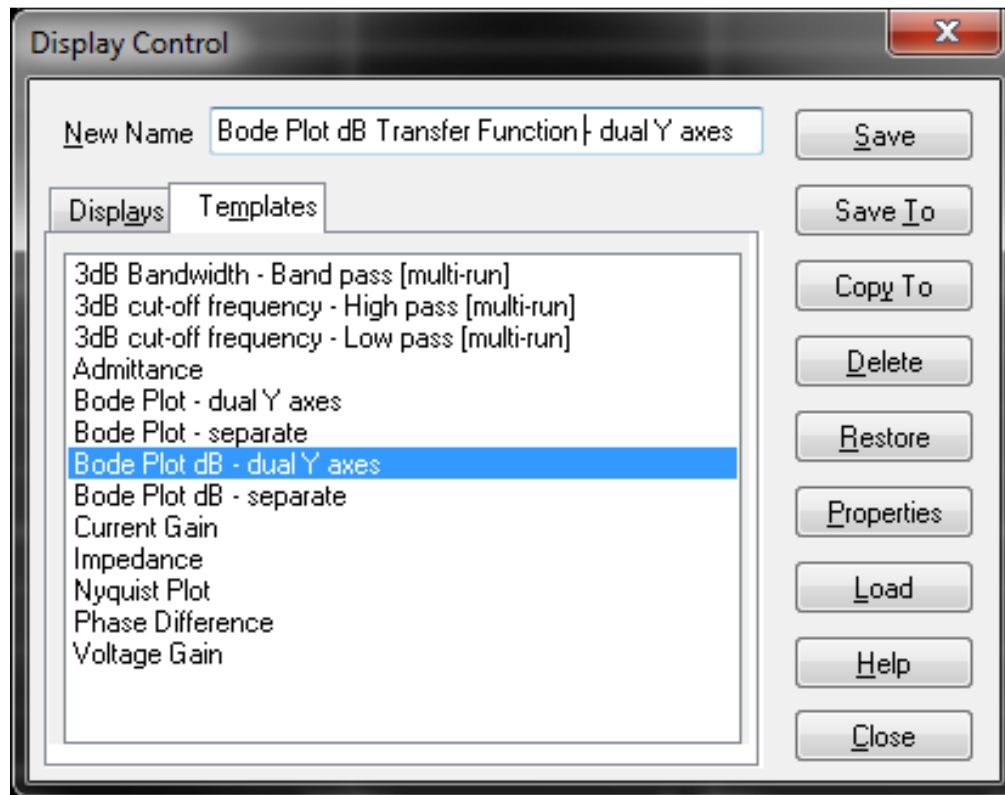
Generating a bode plot can involve multiple steps, involving adding Gain plot in DB, then adding Phase plot. Further it may involve some axis settings etc. to make plot readable. PSpice make this process simple and single click operation with the help of plot window template. User need to select "Bode Plot" from list of plot window template and a marker get attached to mouse cursor in ready to be placed on desired node. Once this is placed on a node – it will generate a bode plot for voltage or current of a given node.

Here we will take this preconfigured plot window template - Bode plot and use this as seed for creating a new plot window template for a transfer function plot.

1. Launch PSpice and open any DAT file generated from AC analysis.
2. Generate a plot for which you wish to create a plot window template. Here goal is to create a plot window template to generate bode plot for a transfer function. Let's create the plot as shown below.



3. Select Windows > Display Control
4. Select Templates TAB.
5. Select seed plot windows template and modify the name. We will select "Bode Plot dB - dual Y axes" as seed.
6. You can use any new name. Click on Save To

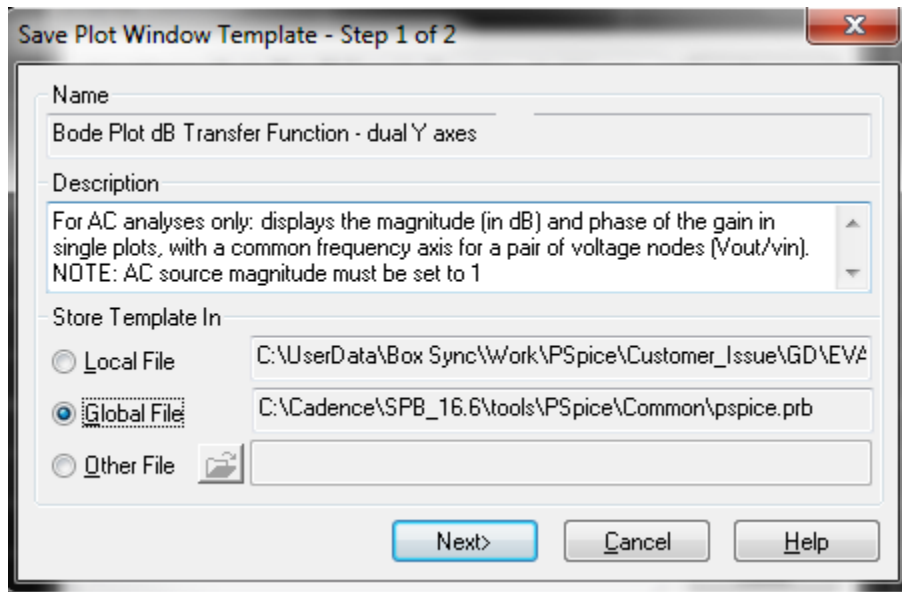


You should get following dialog – Add a description for this new plot window template. Select the location where you would like to save this template. If you save this to Global file – it will be available across the designs and click on next.

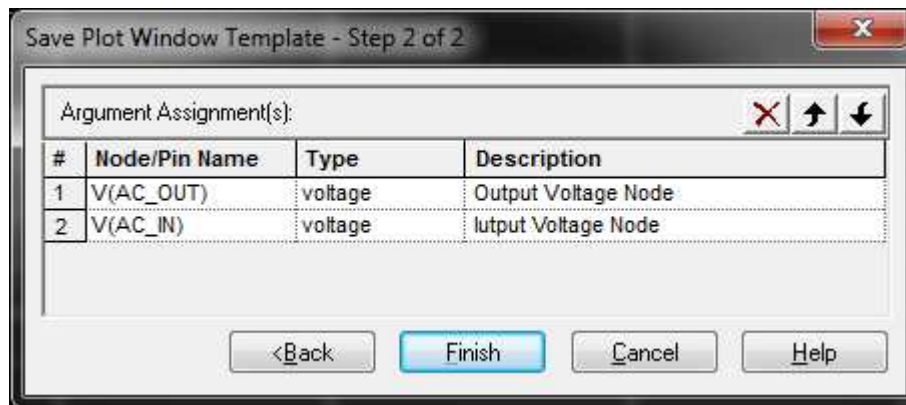
Saving this to Local file will make this available only for this specific profile.

Saving this to other file (say myOther.prb) will create a plot window template but would not make this available in current profile. Once created user can load this plot window template to any session by bringing up display control dialog and loading this prb (myOther.prb) file.

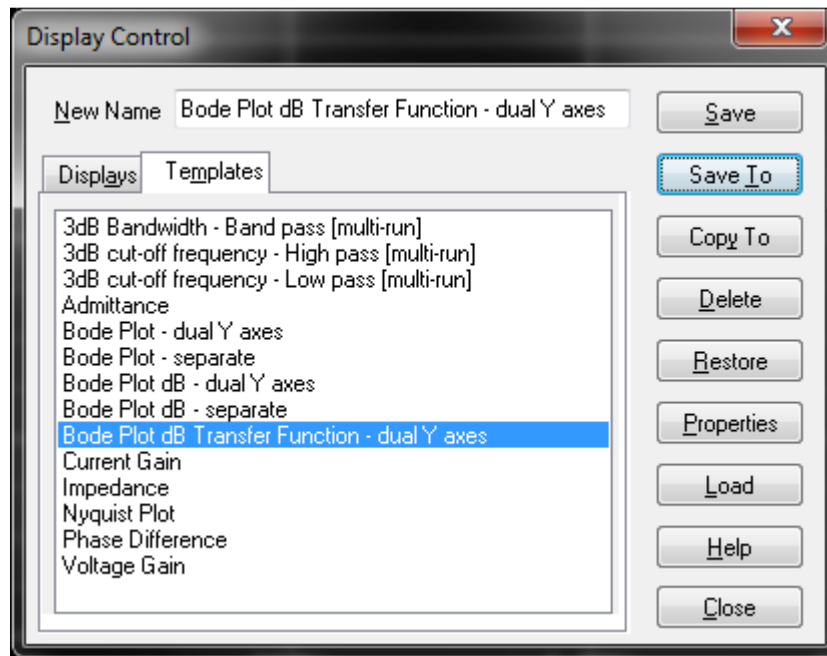
We will select Global File and click on Next.



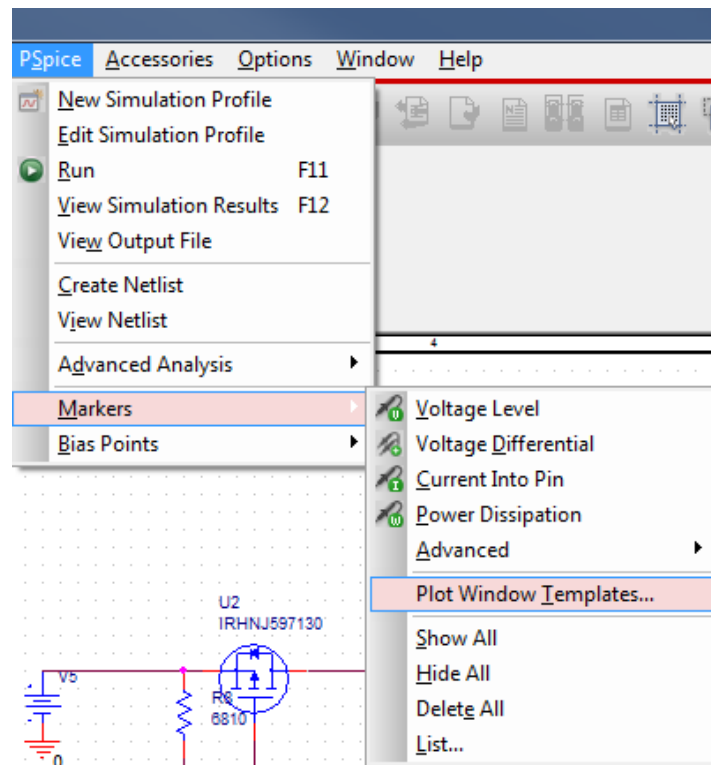
- In following dialog add a description. One can also change the type to be Current or Any. This would allow to use this template for Voltage (node), Current (pin) or Any (either voltage or current or power).

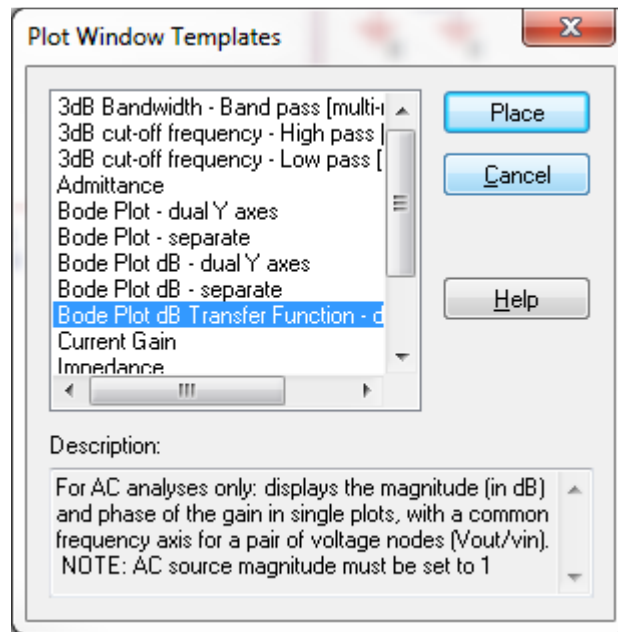


- Click finish to successfully create a new Plot Window template. It should now be listed in Display control dialog under Templates.



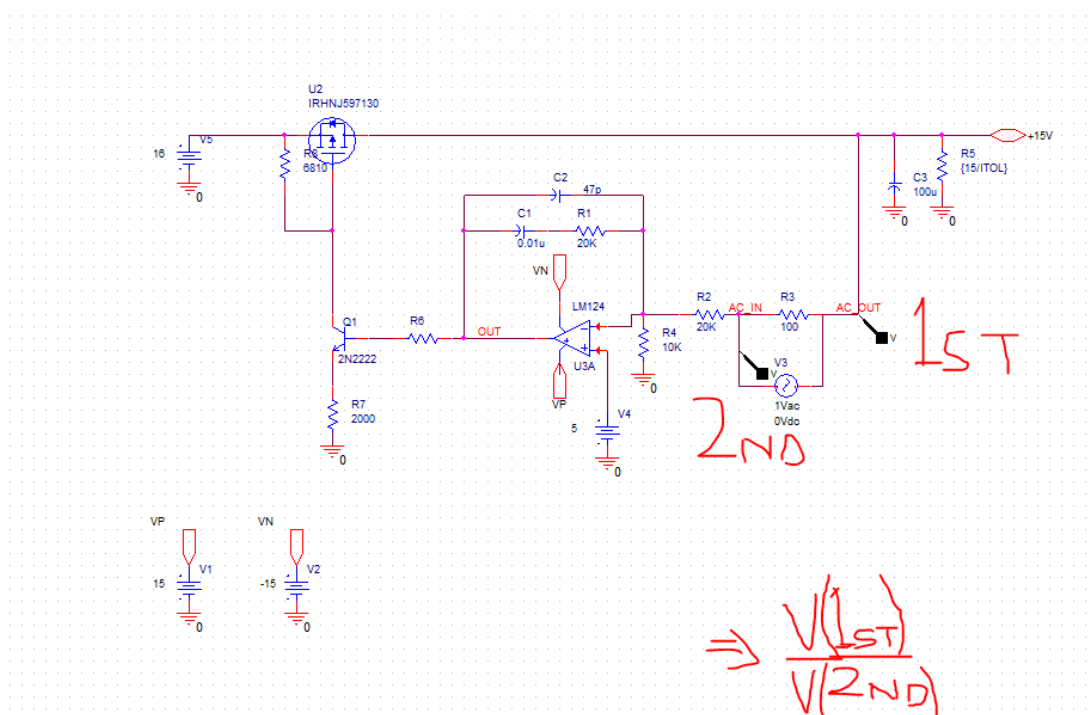
This will be visible in Schematic – Plot Window Template Dialog as well.



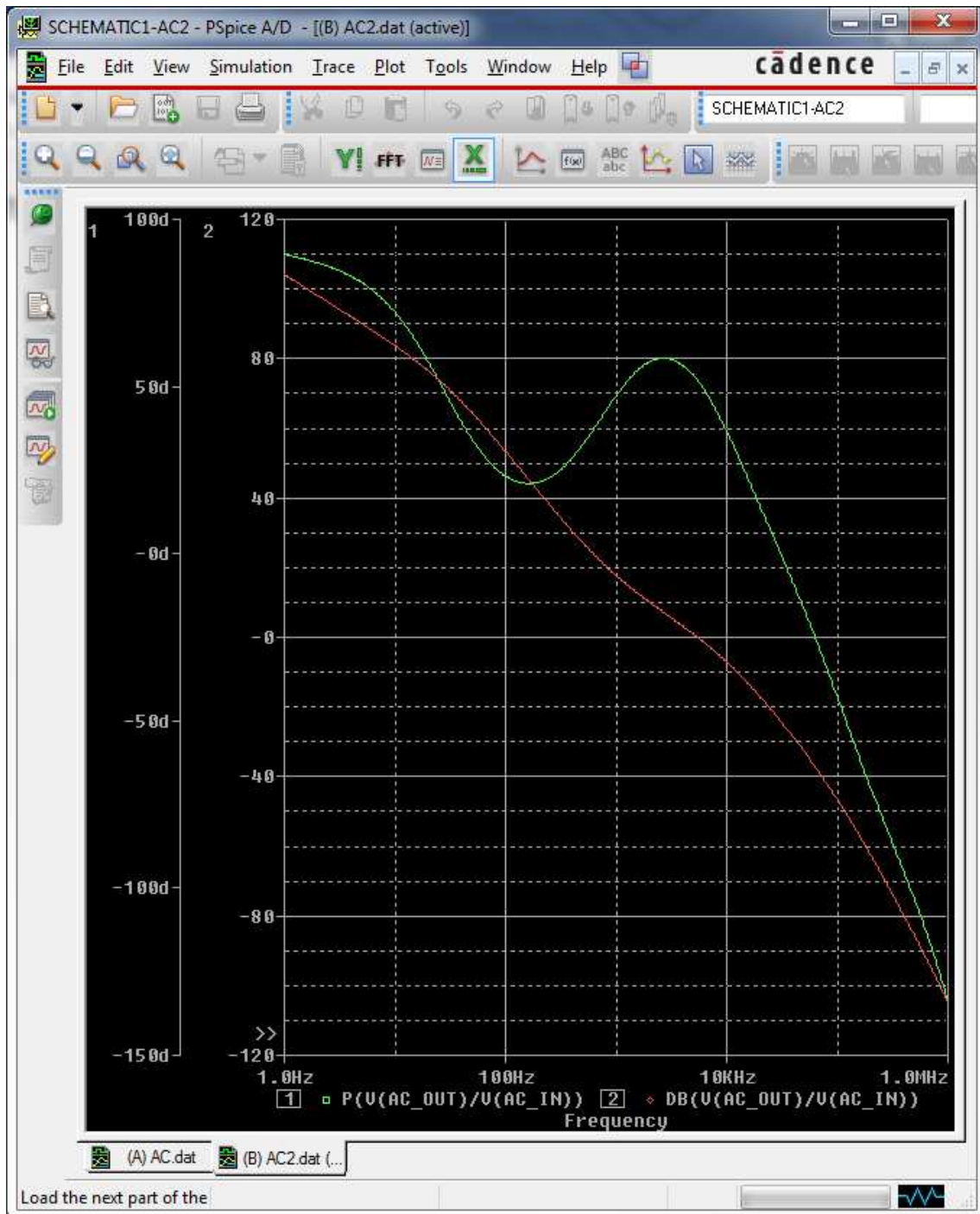


To use this Plot Window template, bring up plot window template dialog in Schematic view, select this template and click on Place.

Place 1st marker on Output node of transfer function and second marker on Input node of Transfer function. For example – Picture shown below would generate a Bode Plot for $V(AC_OUT)/V(AC_IN)$.



The resultant plot would be –



Conclusion

Generating a custom plot involving multiple waveform with analog operators applied on those could be time consuming and tedious task. PSpice provide simple, power and customizable plot window template to make this very simple task. Designers can use this capability to simplify common and repeatable task to be more productive with their design and analysis work.

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