## **PSpice Convergence Problems**

If PSpice does not converge, you can adjust several parameters to improve convergence, but at a loss of accuracy. Assuming your circuit has no connection errors, try the following:

1. Change the STEPGMIN option from no to yes. In PSPICE Schematics, open Analysis Setup box and click on the Options... button. Scan down the left column and double click on STEPGMIN until it shows Y. Then hit OK. Try running your circuit again. If it still does not converge, try the next step below.

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	Reset All		0	( Ca	ncel

2. You can also improve convergence by increasing the size of the three parameters ABSTOL, VNTOL, and RELTOL. In the above **Options** box, find each parameter in the right column, click on a parameter, edit the parameter value in the **New Value**: box, and click on Accept. Then hit OK.

ABSTOL is the absolute current tolerance (default value is 1pA)

VNTOL is the absolute voltage tolerance (default value is 1uV)

RELTOL is the relative tolerance (default value is 0.001 = 0.1%)

3. In MOS circuits, adding very large resistors from ground to the gates of MOSFETs that do not converge, sometimes helps PSpice convergence.

Remember, making any of these changes will decrease the accuracy of your Spice results. <u>PSpice may even converge to the totally wrong values</u>!