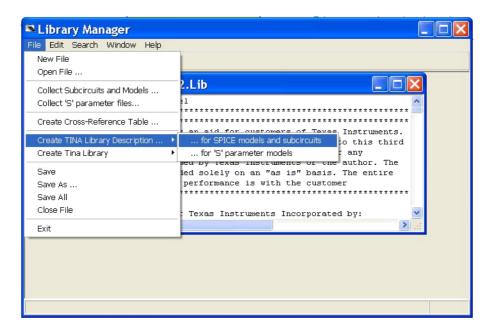
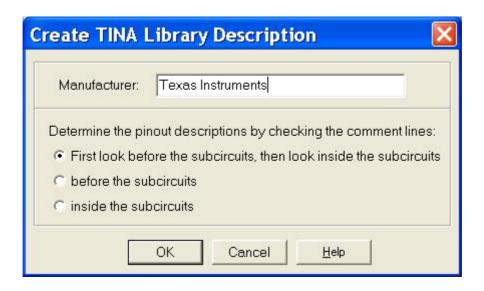
How to create .LIB & .TLD

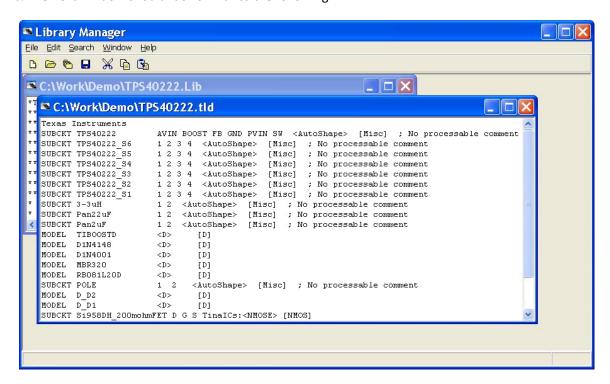
- 1. Make sure you have industrial version of TINA installed in your system.
- 2. Now open library manager for TINA.
- 3. Open *.lib file in the library manager
- 4. Do the following:



5. Change the Manufacturer field to "Texas Instruments" as below. Keep the default 1st radio button checked also shown below.



6. The next window should look similar to the following:

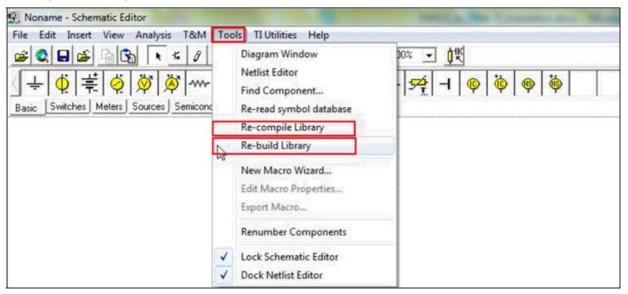


- 7. Change <AutoShape> to Texas:Part_Number. For example Texas:TPS40222
- 8. It is assumed that a symbol was created already using the Schematic Symbol Editor (<u>How to create symbol</u>) and saved in the Texas.DDB folder.
- 9. Change [Misc] to
 - [SMPS] in case of buck, boost & buck-boost.
 - [Voltage Regulators] in case of LDO.
- 10. Keep only the first SUBCKT (i.e. subkct of the device). Erase all other .subckt or .model lines from the .tld file as in the following:

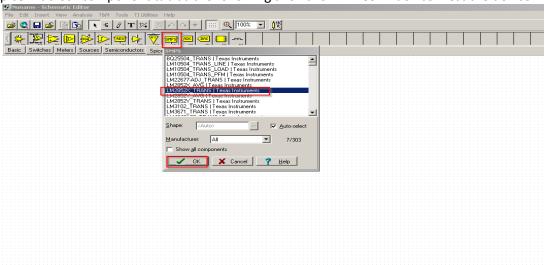


Save the new *.TLD file to a known location. It's a good idea to keep both the *.LIB and *.TLD files in the same location as you will need them for step 11. It's also not a good idea to work in the ...\TINA\SPICELIB since altering this location incorrectly may lead to other errors. (Optional: You can now skip Step 11 below and go to Step 12 for testing purposes.)

- 11. Run TLDLock.exe to encrypt *.Lib, *.TSM and lock *.TLD . Remember to save a copy of the files before running TLDLock.exe, since it will overwrite the original files. Encrypting with TLDLock.exe is permanent.
- 12. Collect both the *.TLD file and the *.Lib file (for example TPS40222.Lib and TPS40222.TLD) and save these files to the ...\TINA\SPICELIB folder.
- 13. If TINA is open, close TINA-TI and reopen as administrator, then allow the program to rebuild and recompile its library.

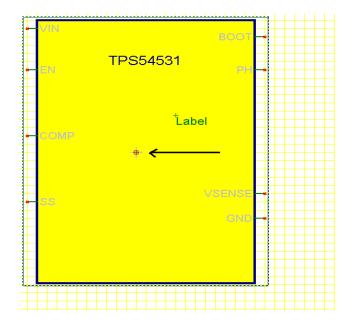


14. Check to see if the newly created device shows up in the SMPS Component Bar located in "Spice Macros" component tab as the following shows for LM2852X device. Test the device.

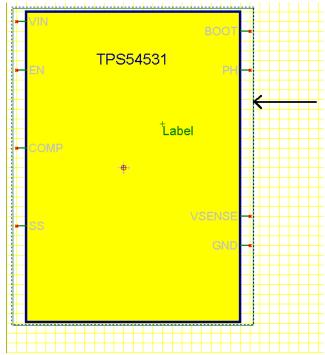


How to create symbol

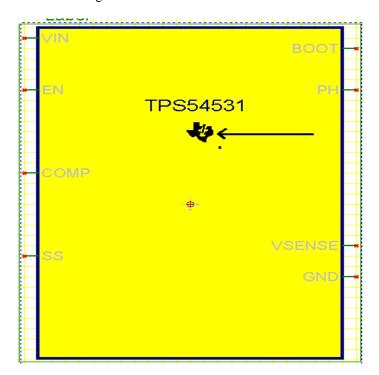
- 1. Open Schematic Symbol Editor.
- 2. Open TEXAS.DDB file.
- 3. Edit symbol shape and pin names.
- 4. Place the cross mark at the centre.



5. Place the border line across the border of the symbol.



6. Place the Ti logo.



8. Save the symbol.