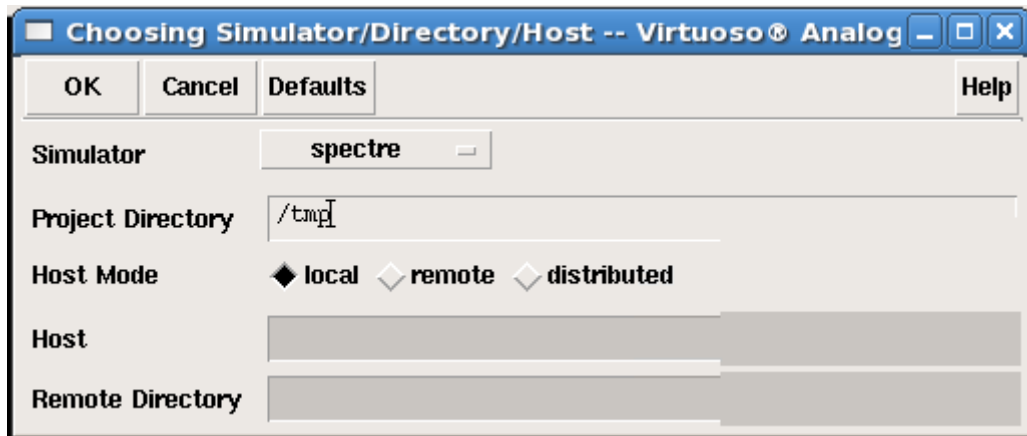


Monte Carlo Simulation

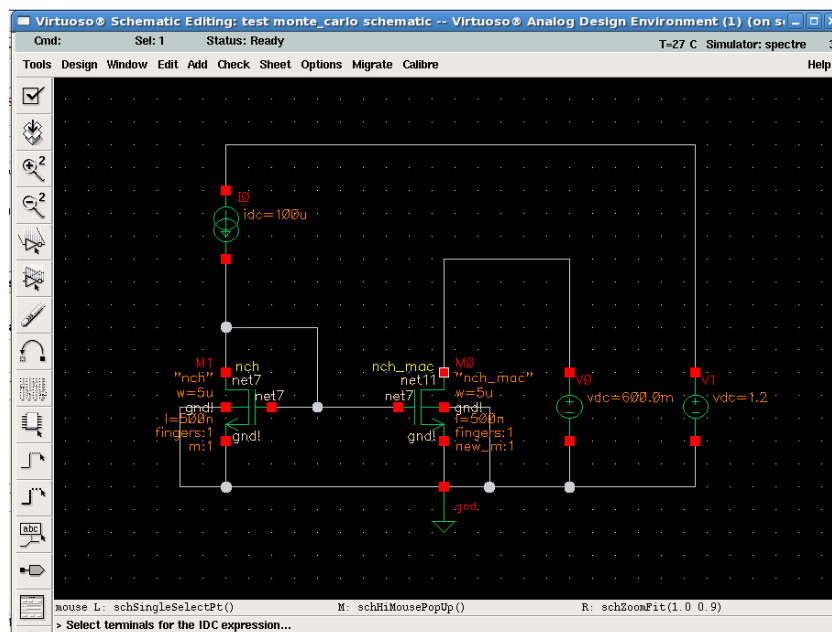
Attention:

When you are doing a large simulation, you may want to store your simulation data in the local machine. You can do this by:

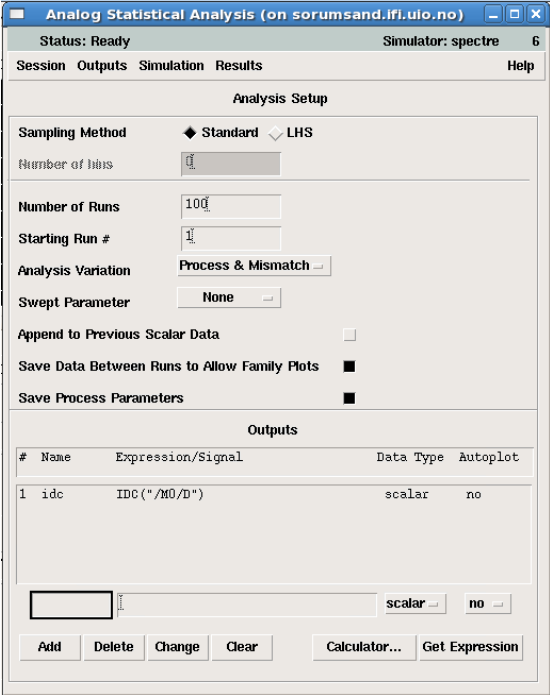
Go to “Setup” then “Simulator/Directory/Host”. change the Project Directory to “/tmp”



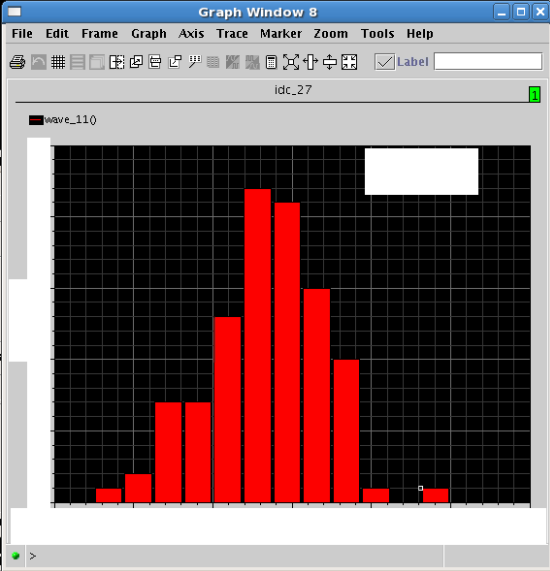
Copy the testbench from the last lab. Change M0 (do NOT change M1, you need an ideal reference) from “nch” to “nch_mac” (From pre-layout simulations using THIS process, nch_mac transistors have to be used in order to do Monte Carlo simulation. No mismatch will be added for nch transistors).



Open Analog Design Environment. Save the DC operation points and I_{D1} . Then go to Tools and click “Monte Carlo”. Do the following setting.



Start the simulation. After the simulation, go to “Results” then “Plot”. Click “Histogram”. (Remarks: Do NOT open any process data to the others, TSMC is very strict on this.)



Increase the size of M0 and M1, any changes on σ_u ?