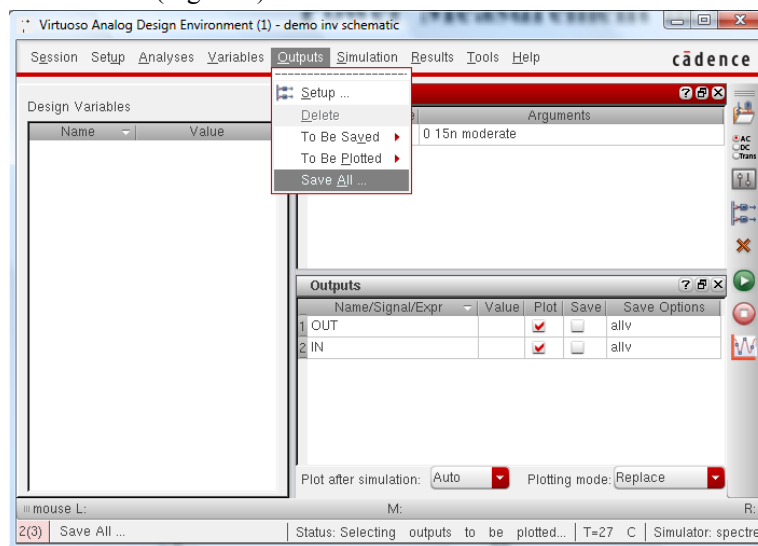# Power Measurement in Cadence

EE577A

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To run power measurement, setup your design and simulation environment just like running timing simulation, in this tutorial we will demonstrate with an inverter schematic. Please watch the discussion tape for the process walkthrough if you are having troubles. After you setup your simulation environments, before running the simulation, click on "Outputs->Save All…" (Figure 1).
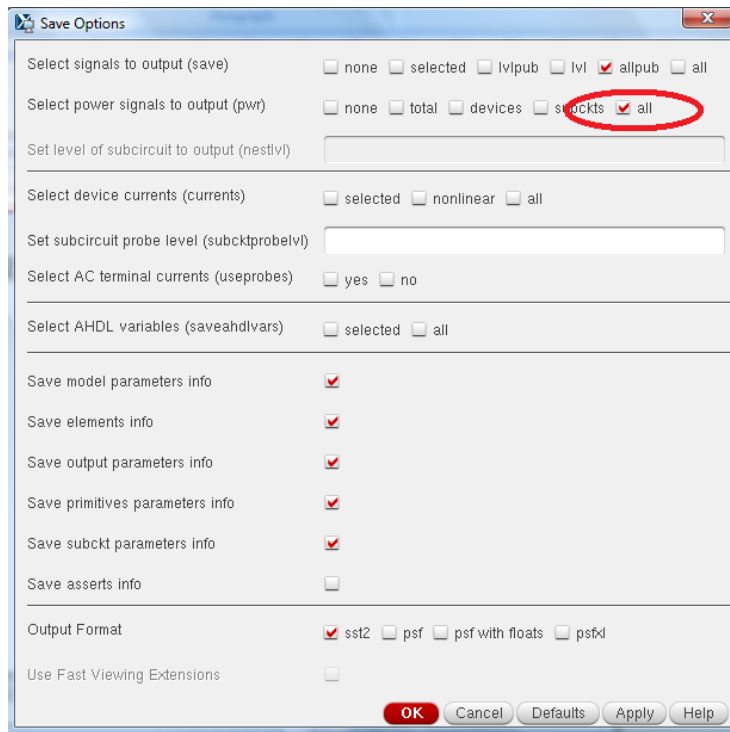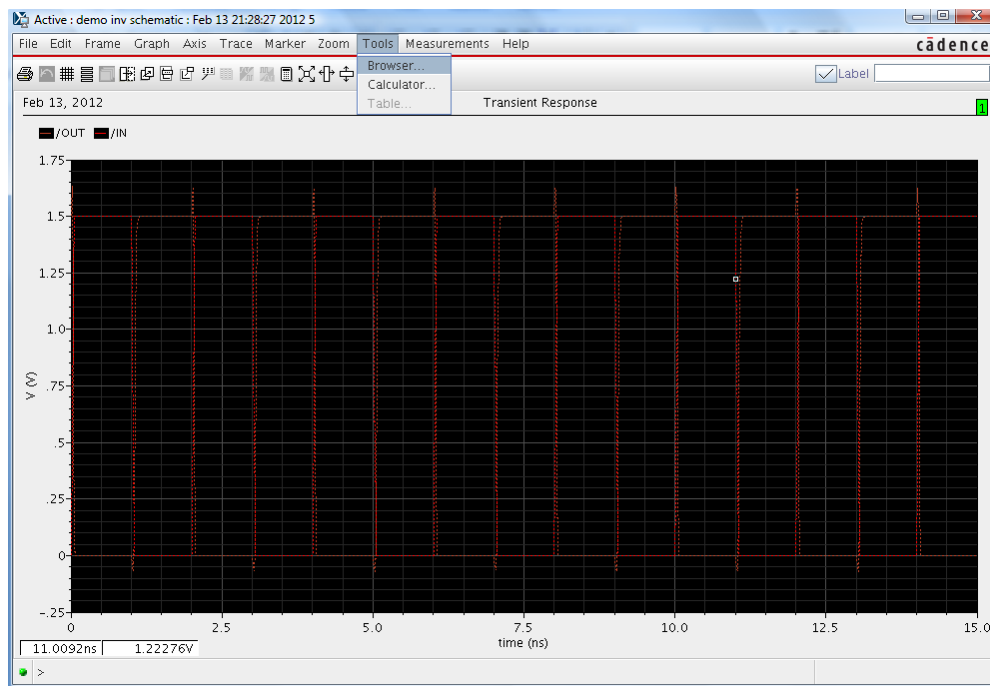

<Figure 1>

For "Select power to output", enable "all", apply and hit "OK" (Figure 2). Then you can run your simulation, and observe the plotted waveform window. On the waveform window, select "Tools->Browser" (Figure 3). Expand the windows as shown in Figure 4, this is where you find the power measurements for each of the modules in your design. For this demo, there is only an nmos and a pmos transistor indicated by M0 and M1. The root option as shown in Figure 4 is the total power report.

Select what you wish to plot, in this case the total power, and click on "Send to Calculator" (Figure 5). A new window should pop up, that is the calculator. Make sure the scroll down tab is showing "Special Functions" (if not select it as seen in Figure 6), and click on "average" once. Click "Evaluate" (Figure 7) and the small window will calculate the average power.
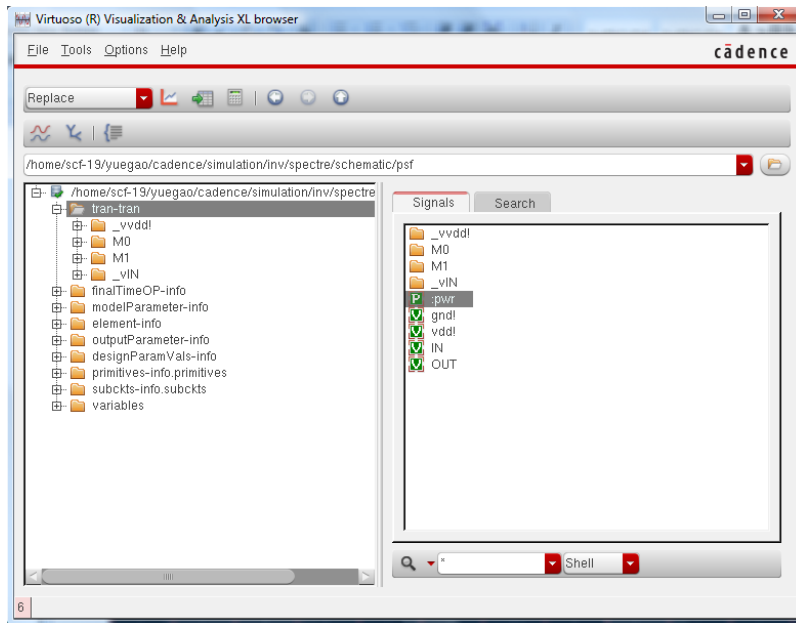
To plot the power diagram, simply double click on what you wish to plot. You may plot several signals on the same window for analysis.
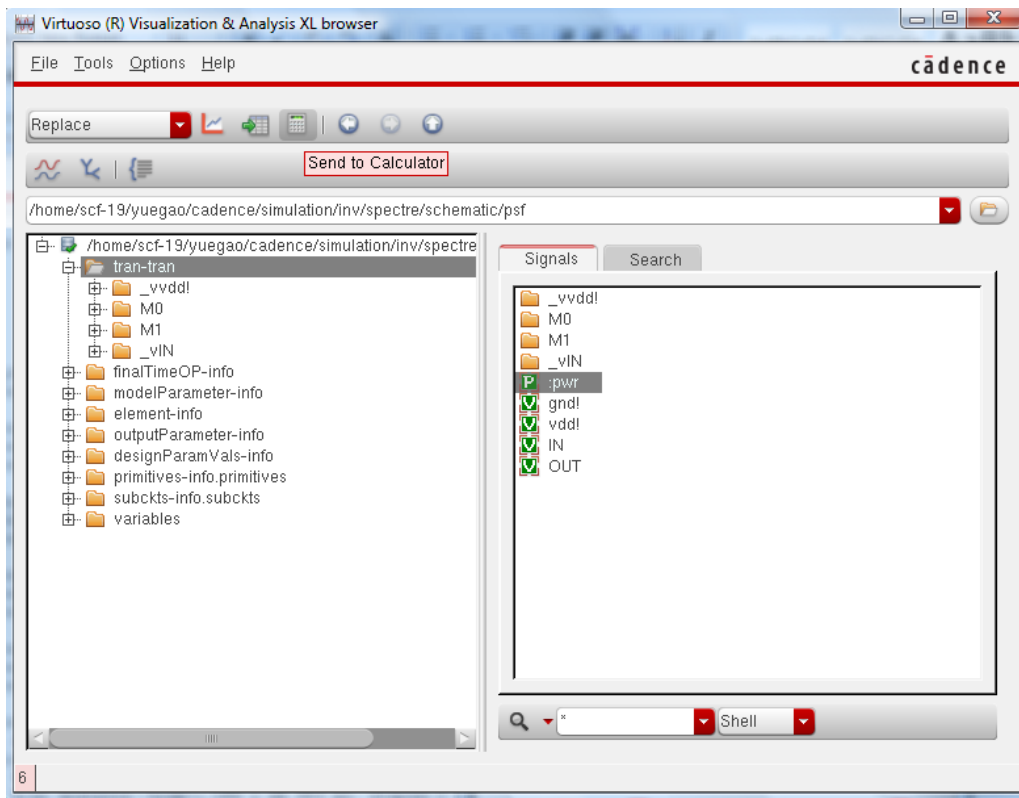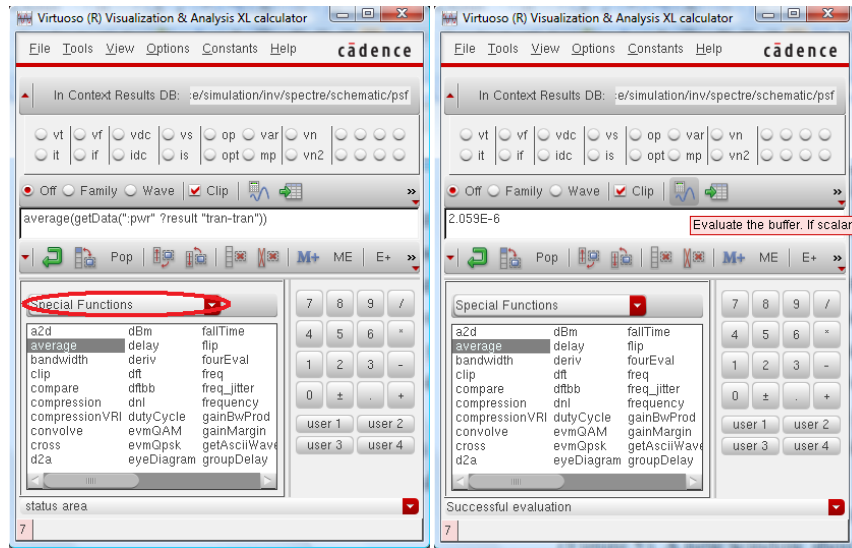
<Figure 2>

<Figure 3>

<Figure 4>

<Figure 5>

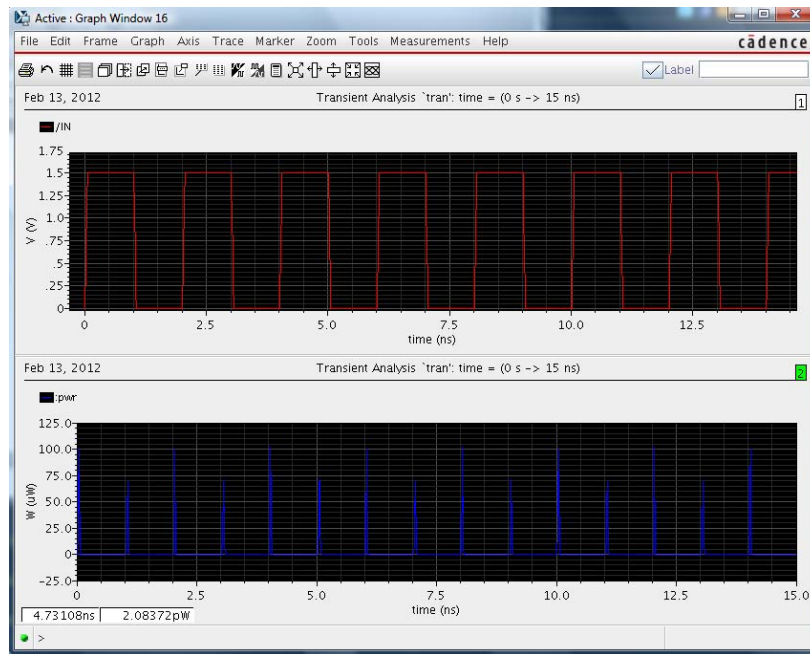<Figure 6>   <Figure 7>

<Figure 8>