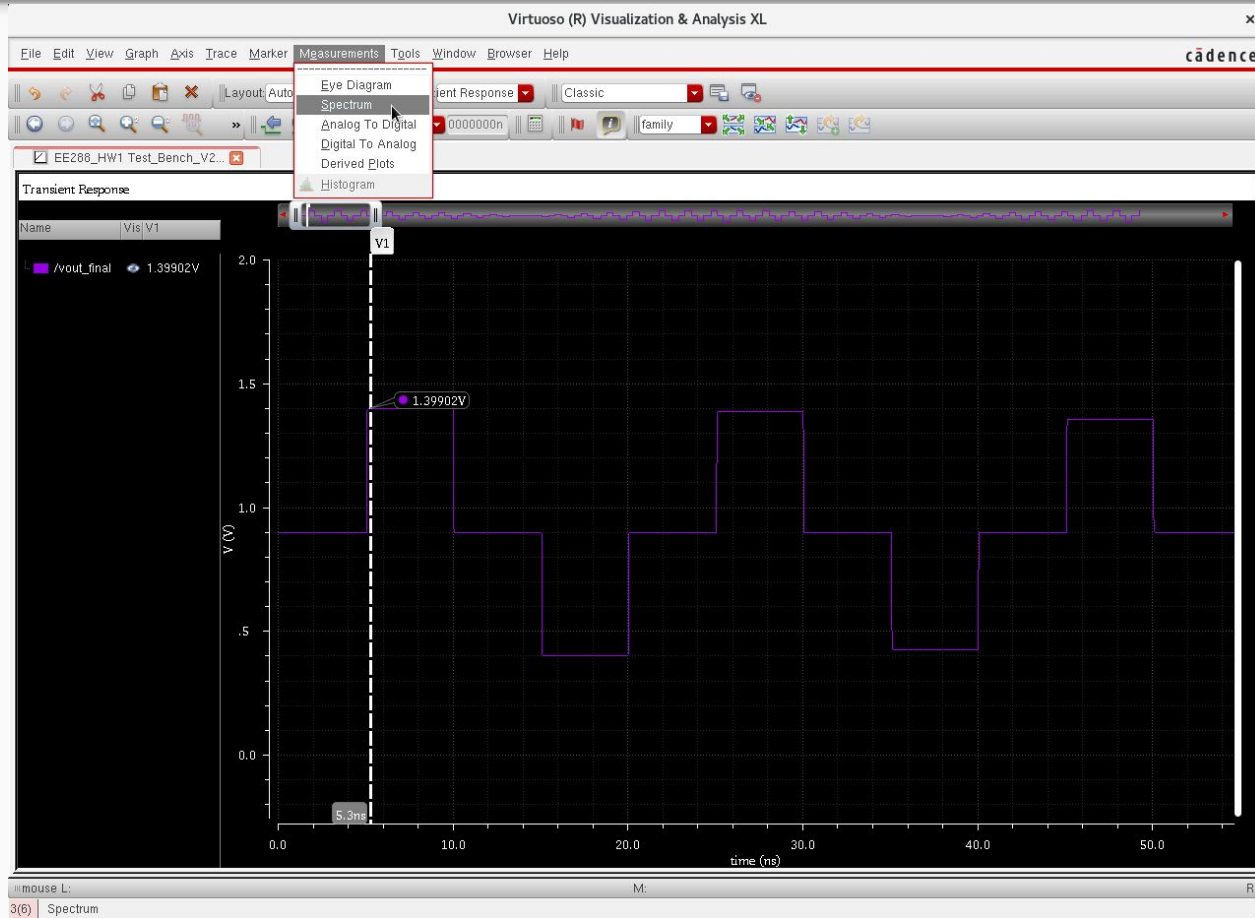


EE288 - Cadence FFT

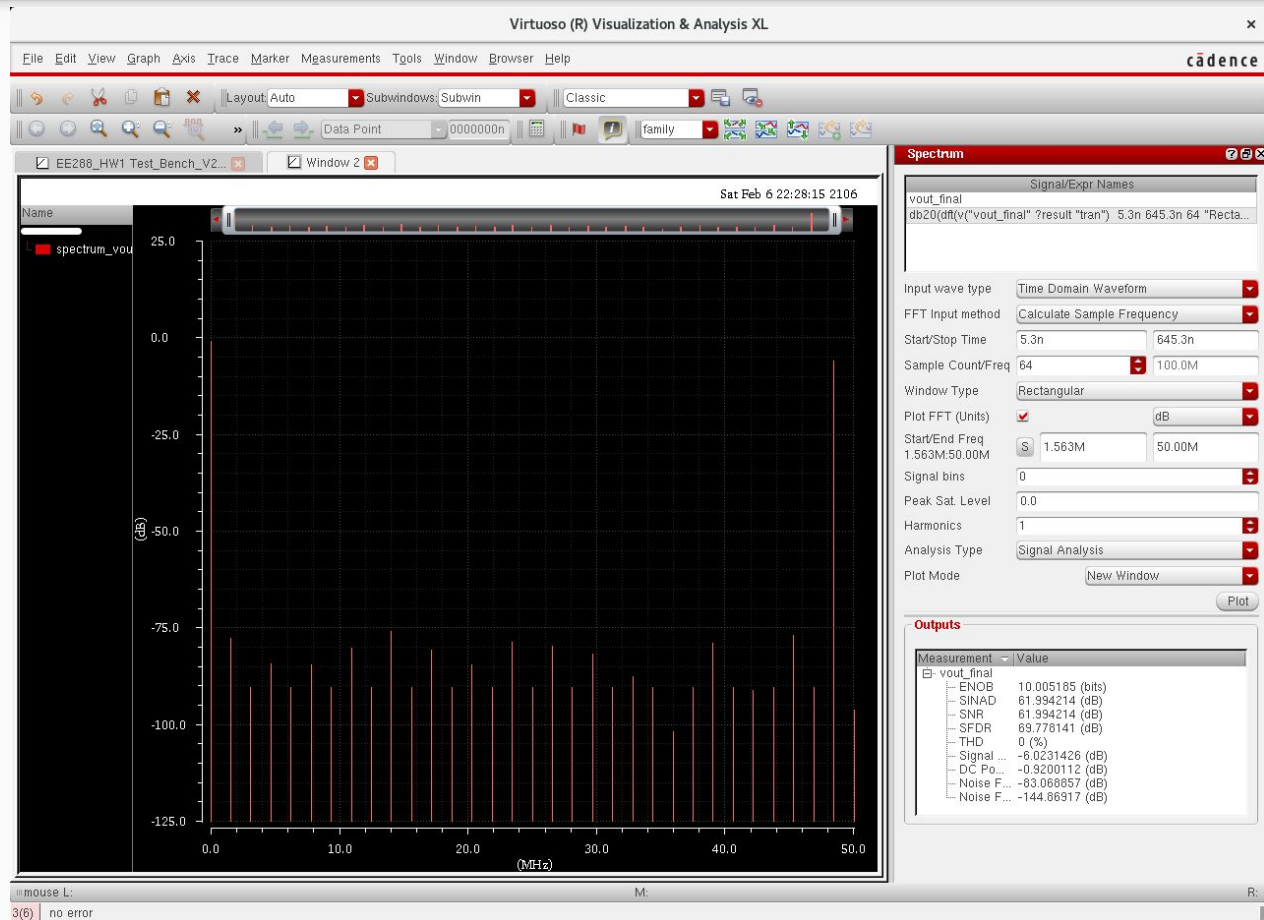
Method 1: Use spectrum from plot panel

- Plot the output from the DAC
- Find the first point and interval to sample at
- Open the spectrum window (Measurements -> Spectrum)
- Select the parameters for obtaining spectrum
- Plot and make any needed adjustments

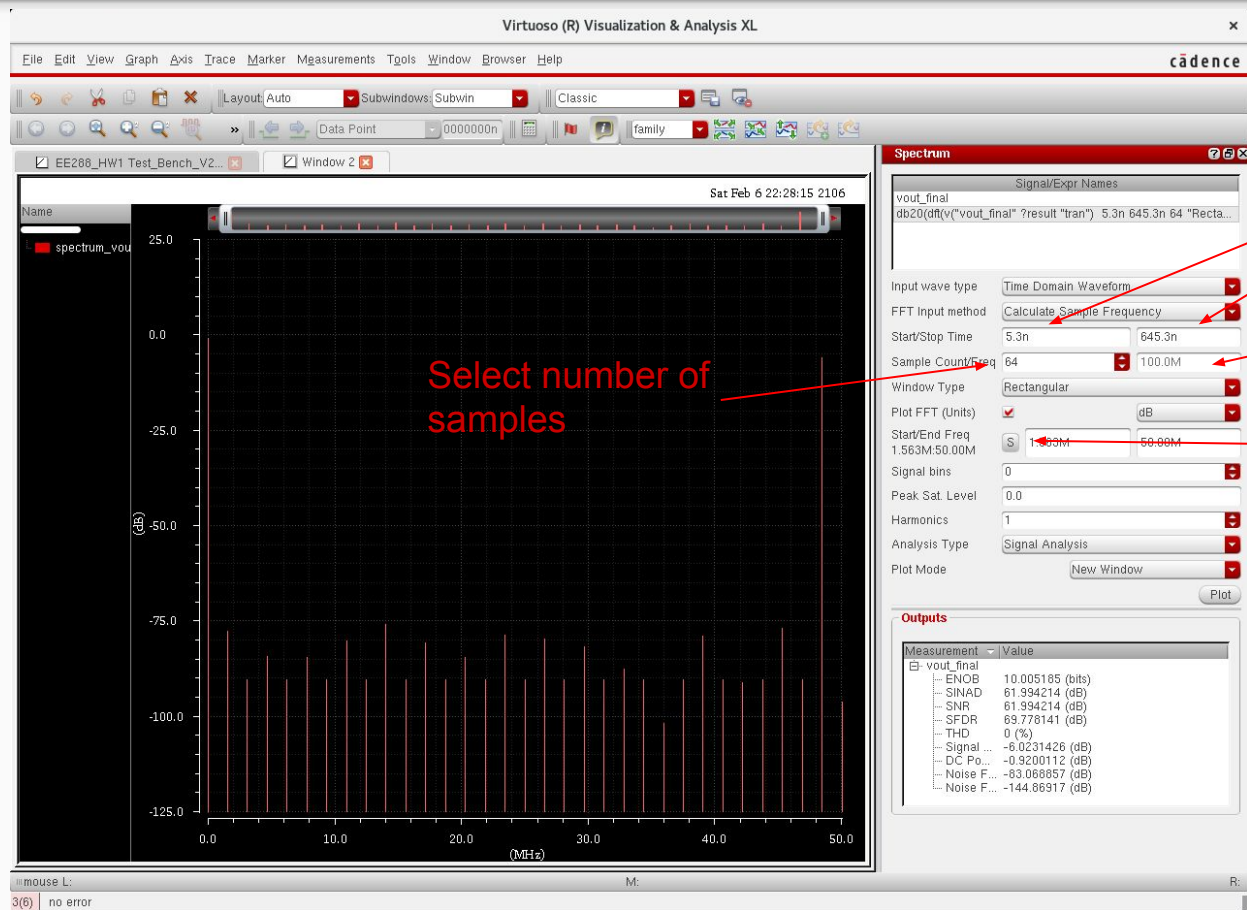
Method 1: Find the interval to sample at and open the spectrum window



Method 1: Set parameters for spectrum



Method 1: Set parameters for spectrum

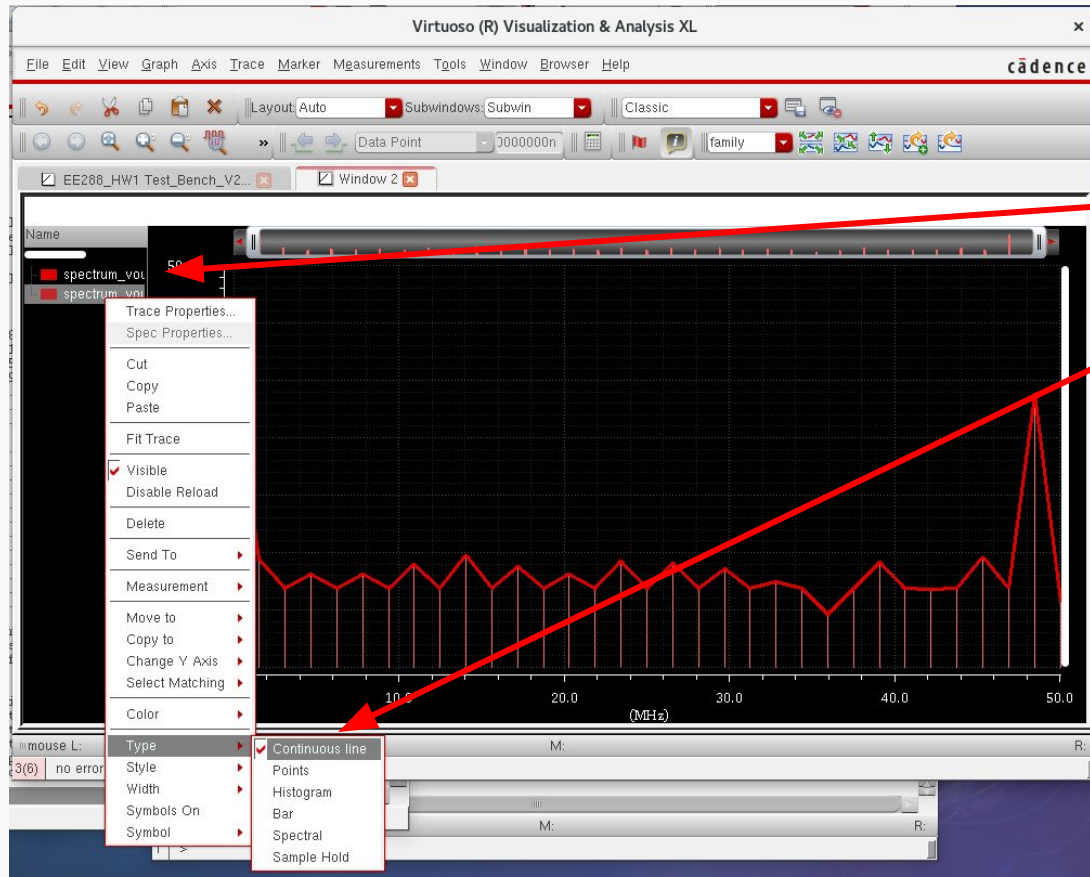


Set start and end times

Check that frequency makes sense

Adjust start/end freq for ENOB/SINAD/SNR

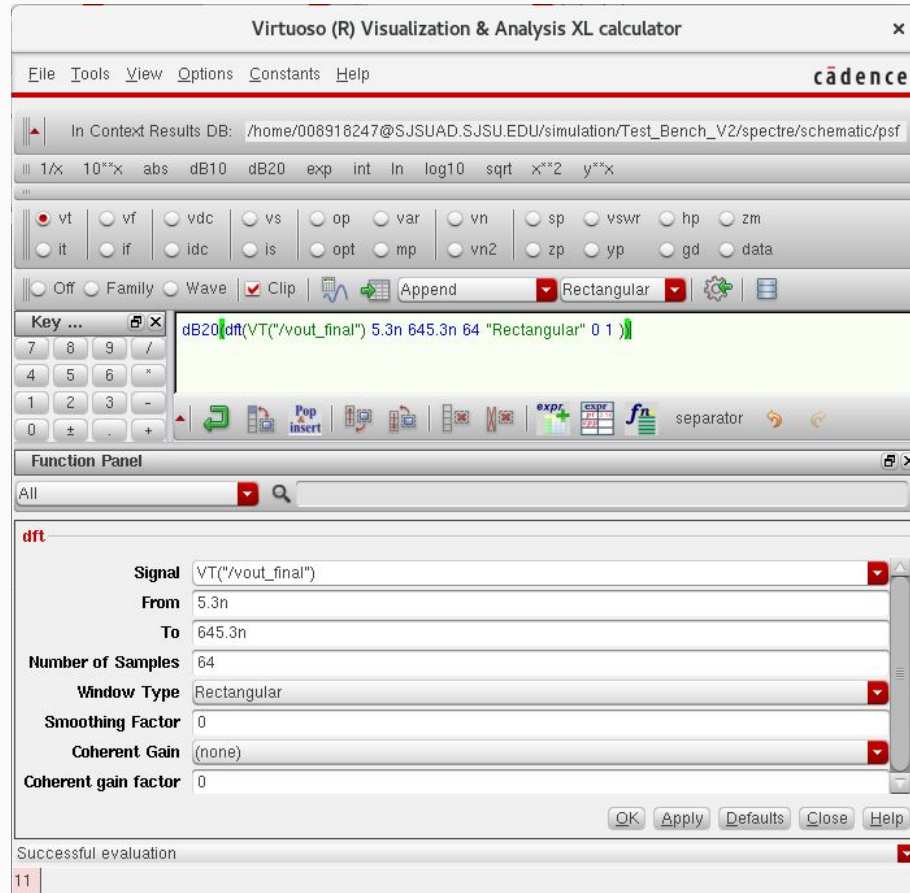
Extra: Adding continuous line over spectral lines



Copy and paste spectrum

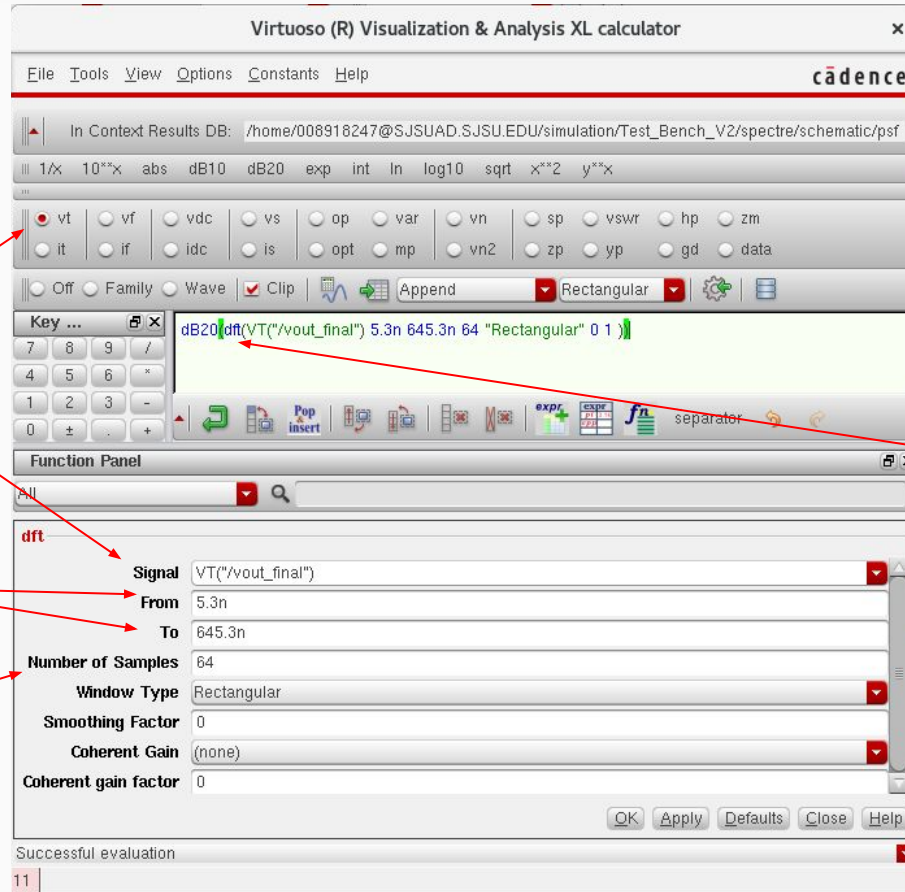
Change type of one spectrum to continuous

Method 2: FFT from calculator



- Open the calculator window from the graph view
- Click vt and select the DAC output
- Select dft from the function menu and change the parameters as needed
- Use dB20 to get the output in dBs
- Send to plot/ADE

Method 2: FFT from calculator



Signal (VT for trans)

Start/End Time

of samples

Don't forget dB20

Method 2: FFT from calculator

The screenshot displays the Virtuoso (R) Visualization & Analysis XL calculator interface. The main window title is "Virtuoso (R) Visualization & Analysis XL calculator". The menu bar includes File, Tools, View, Options, Constants, and Help. The Cadence logo is in the top right corner.

The "In Context Results DB:" field shows the path: `/home/008918247@SJSUAD.SJSU.EDU/simulation/Test_Bench_V2/spectre/schematic/psf`.

The toolbar contains various mathematical and signal processing functions: `1/x`, `10**x`, `abs`, `dB10`, `dB20`, `exp`, `int`, `ln`, `log10`, `sqrt`, `x**2`, `y**x`.

Below the toolbar are radio buttons for `vt`, `vf`, `vdc`, `vs`, `op`, `var`, `vn`, `sp`, `vswr`, `hp`, `zm`, `it`, `if`, `idc`, `is`, `opt`, `mp`, `vn2`, `zp`, `yp`, `gd`, and `data`.

The "Off" radio button is selected. The "Family" dropdown is set to "Wave". The "Clip" checkbox is checked. The "Append" button is visible. The "Rectangular" dropdown is set to "Rectangular".

The "Key ..." dialog box is open, showing the expression: `dB20(dft(VT("/vout_final") 5.3n 645.3n 64 "Rectangular" 0 1))`.

The "Function Panel" is open, showing the "dft" function configuration:

- Signal: `VT("/vout_final")`
- From: `5.3n`
- To: `645.3n`
- Number of Samples: `64`
- Window Type: `Rectangular`
- Smoothing Factor: `0`
- Coherent Gain: `(none)`
- Coherent gain factor: `0`

The "OK", "Apply", "Defaults", "Close", and "Help" buttons are at the bottom of the panel.

A status bar at the bottom indicates "Successful evaluation" and the page number "11".

Two red arrows point to specific elements:

- An arrow labeled "Plot" points to the "Key ..." dialog box.
- An arrow labeled "Send to ADE" points to the "Rectangular" dropdown menu.