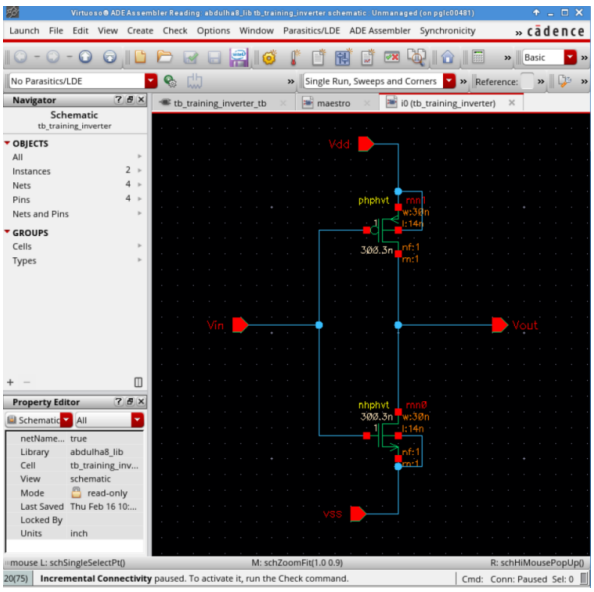
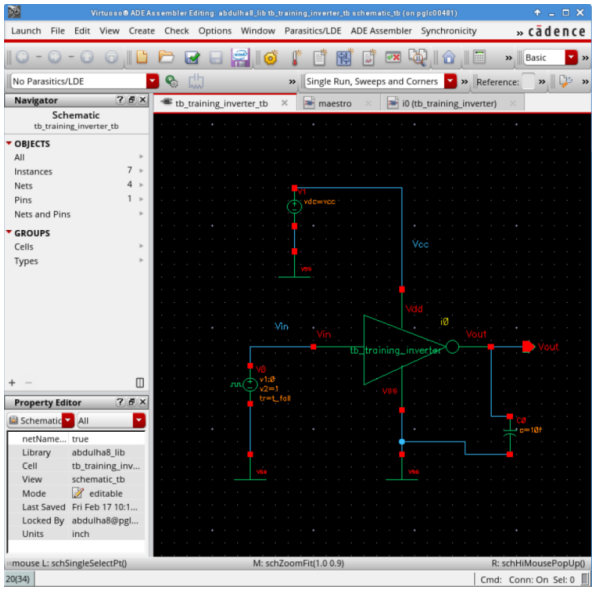
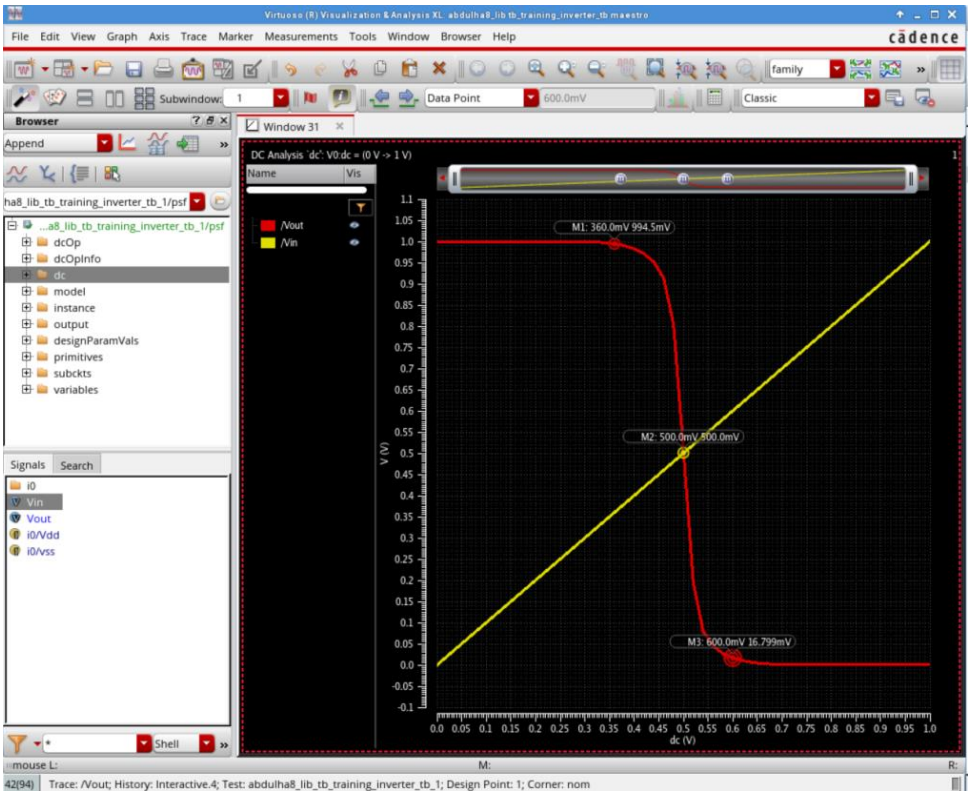
Static characteristic

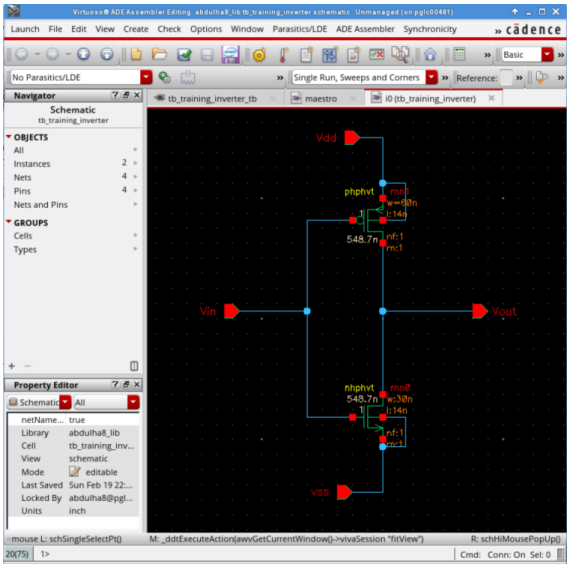
1) Draw the voltage transfer characteristic (VTC) curve

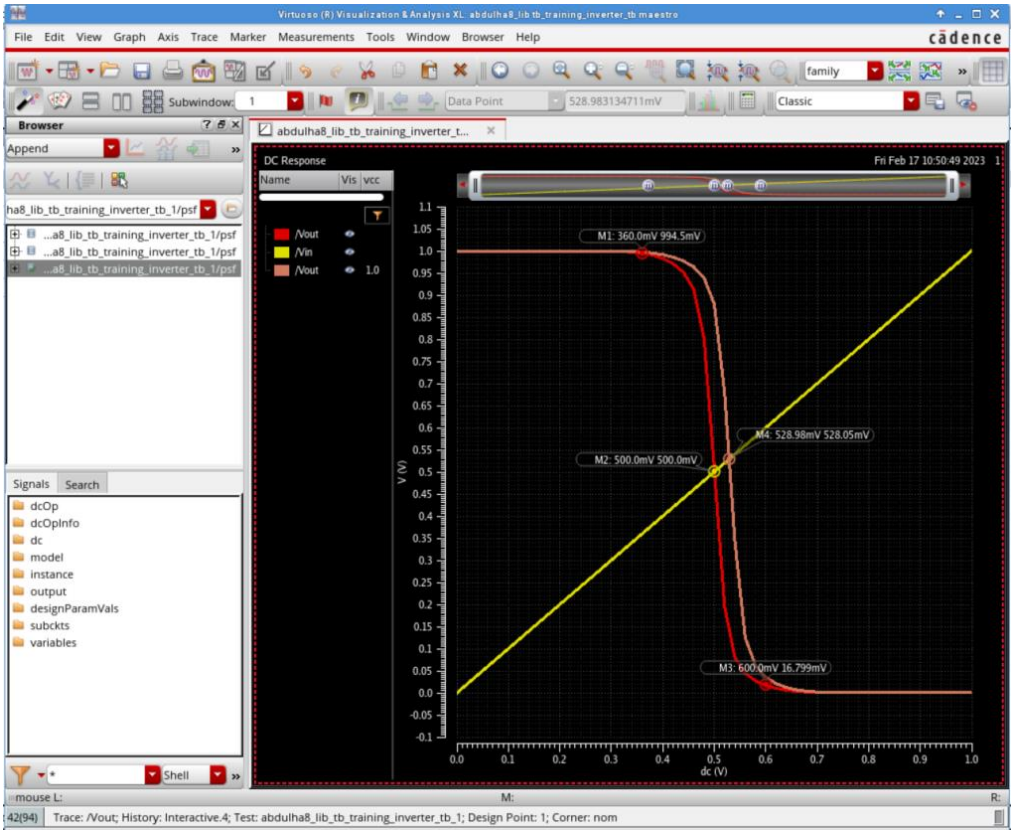




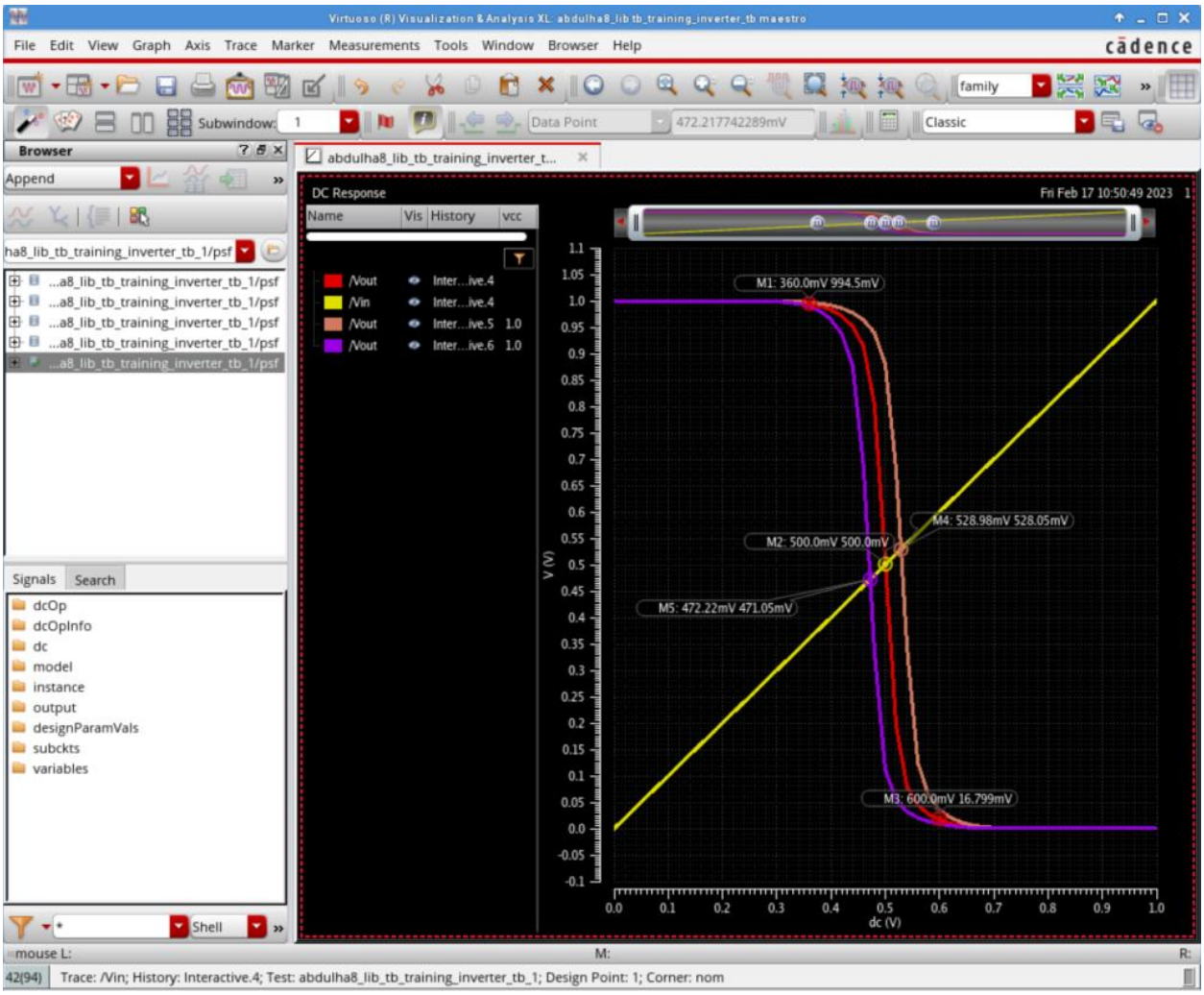


2) Draw the VTC curve for symmetrical inverter as well as asymmetrical inverter and check the difference.

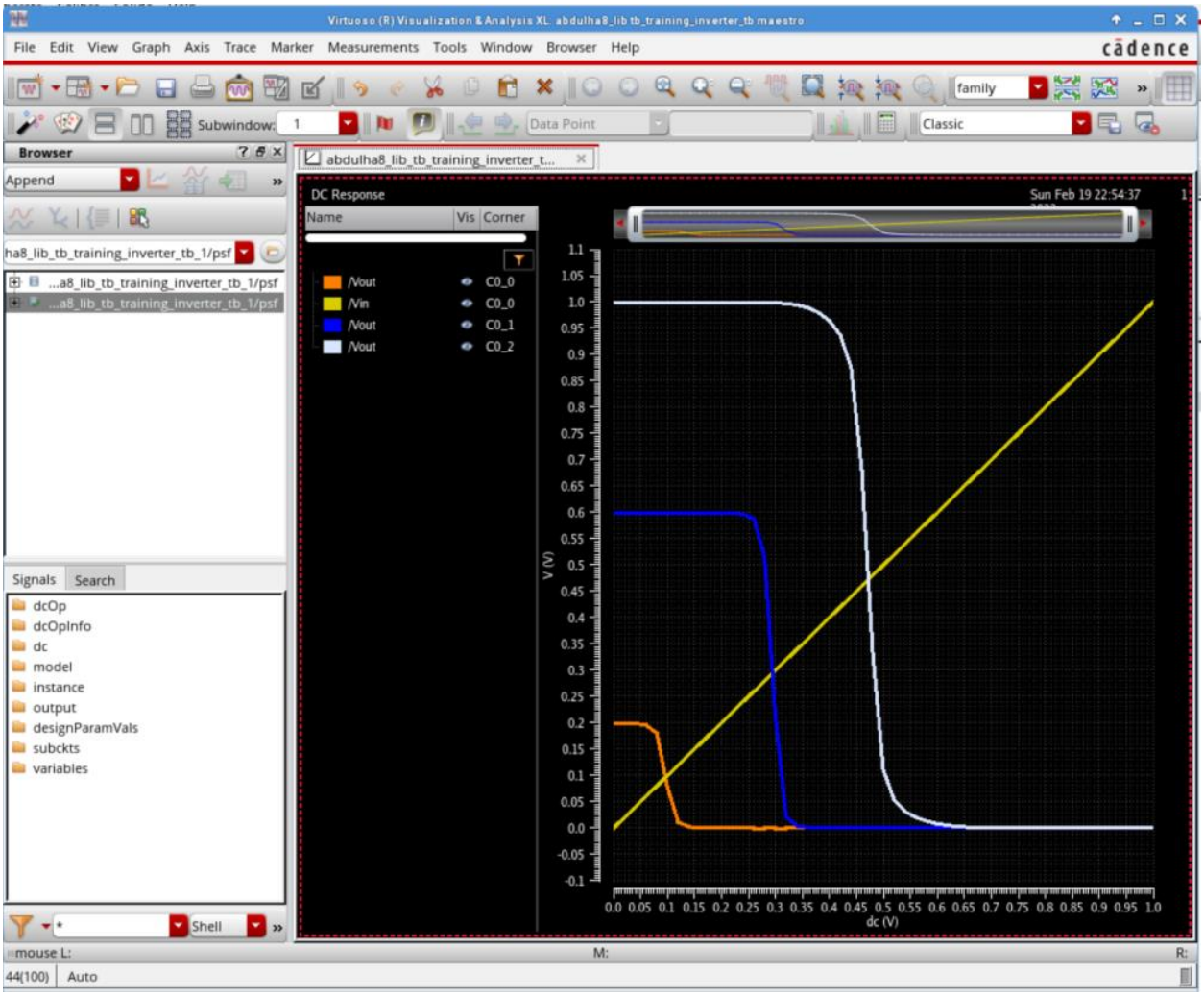




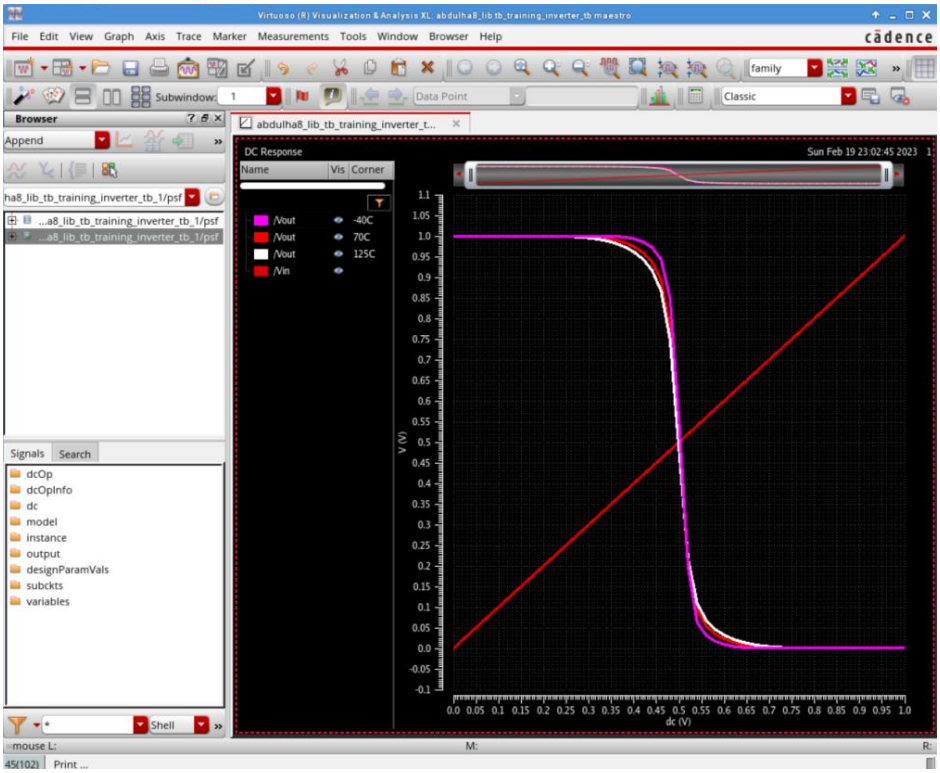
3) For different strength of PMOS and NMOS draw the VTC curve and check the shifting od VTC to left or right.



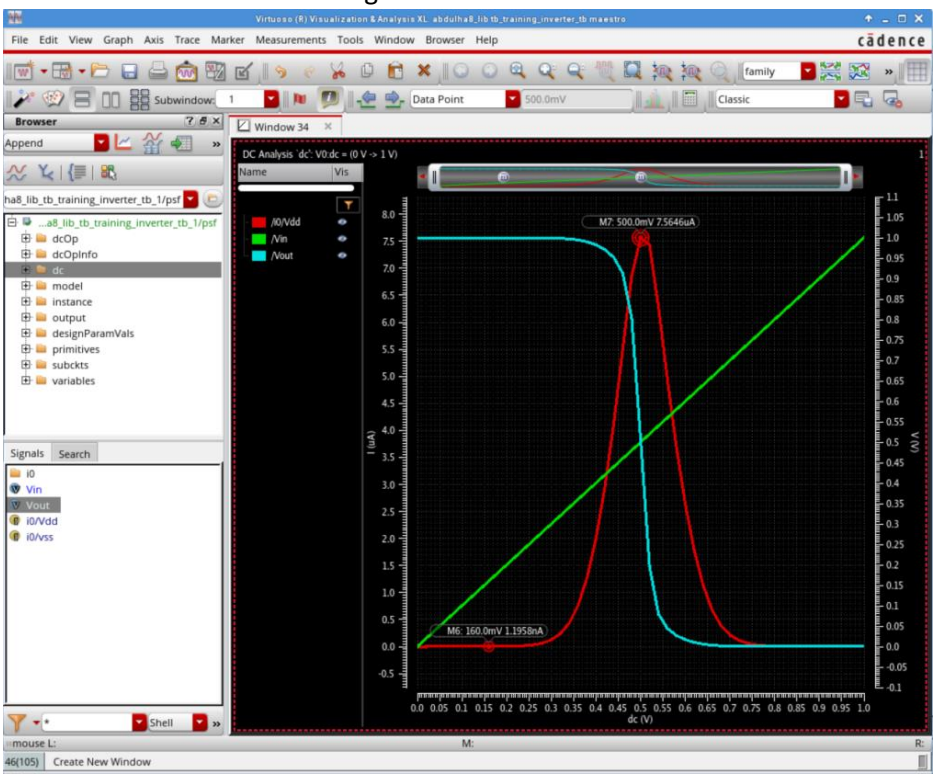
4) Vary the supply voltage and observe the VTC curve



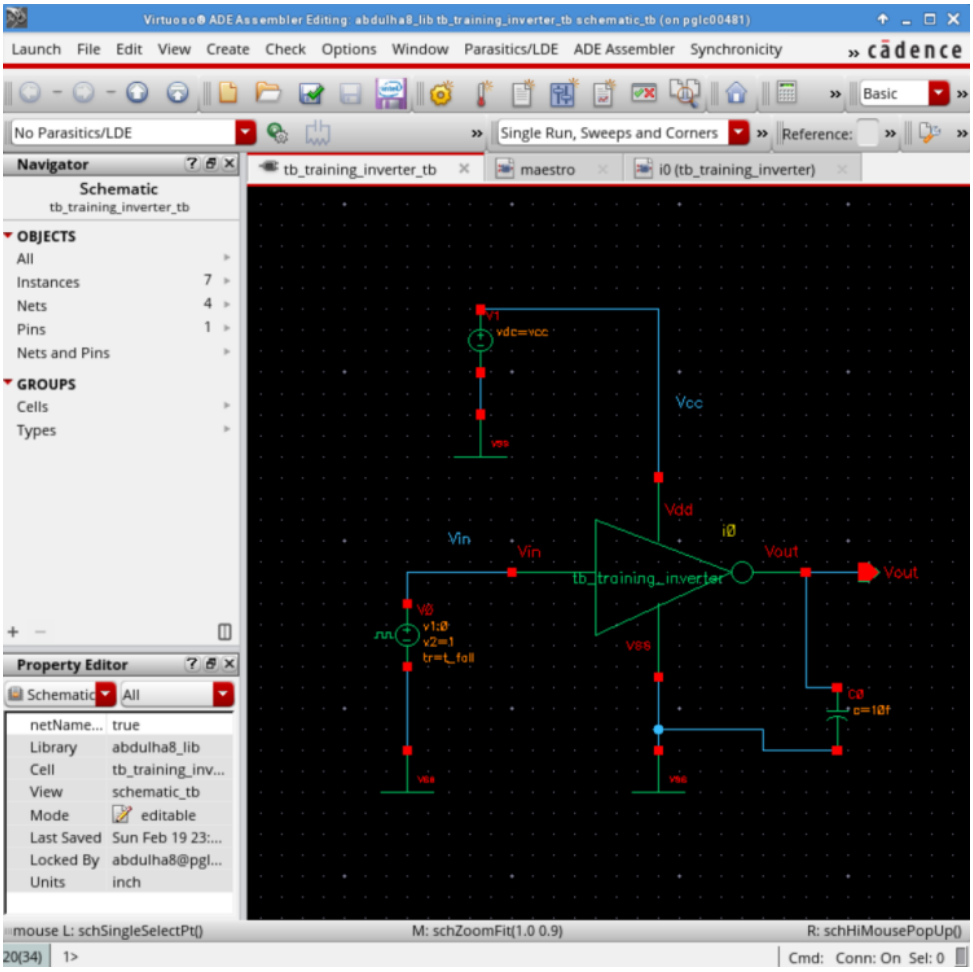
5) Vary the temperature and observe the VTC curve

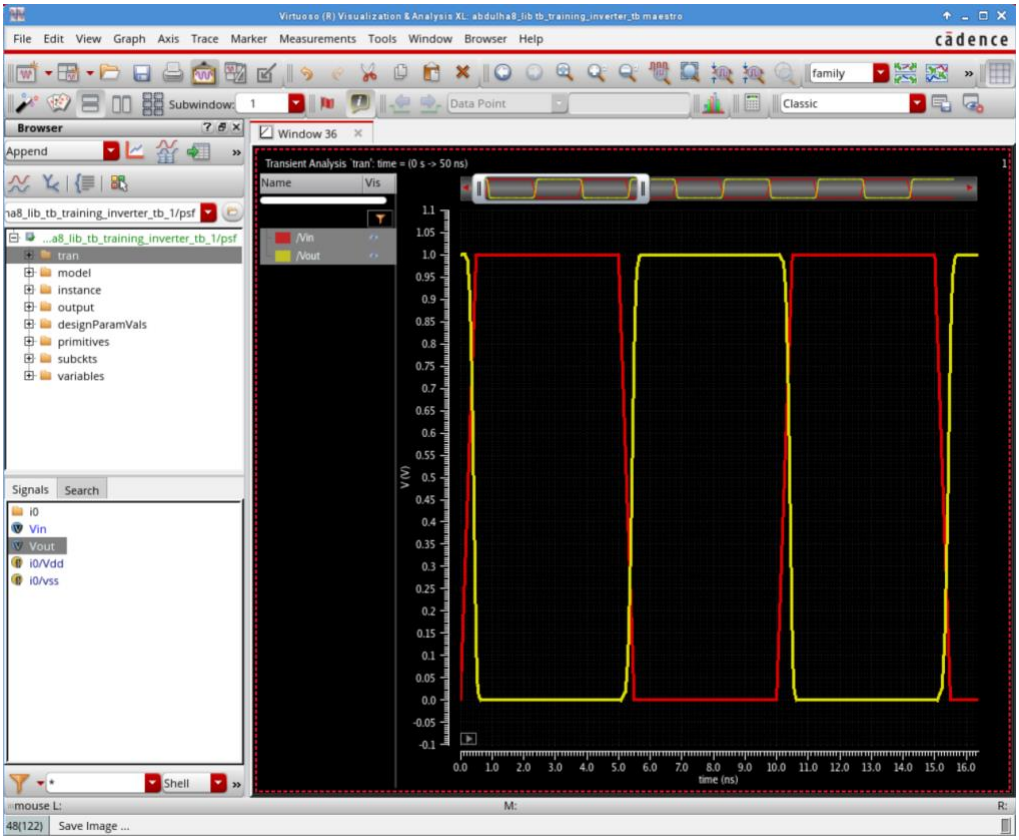


6) Draw the drain current thorough the inverter and calculate the static current



Dynamic Characteristics





t_period	1/clk_freq
t_rise	0.05/clk_freq
t_fall	0.05/clk_freq
clk_freq	100M
vcc	1
vin	1

Test	Output	Nominal
Filter	Filter	Filter
abdulha8_lib_tb_training_inverter_tb_1	risetime	162.8p
abdulha8_lib_tb_training_inverter_tb_1	falltime	145.6p
abdulha8_lib_tb_training_inverter_tb_1	delay_rising(tplh)	167.1p
abdulha8_lib_tb_training_inverter_tb_1	delay_falling(tphl)	178.1p
abdulha8_lib_tb_training_inverter_tb_1	power_average	1.242u