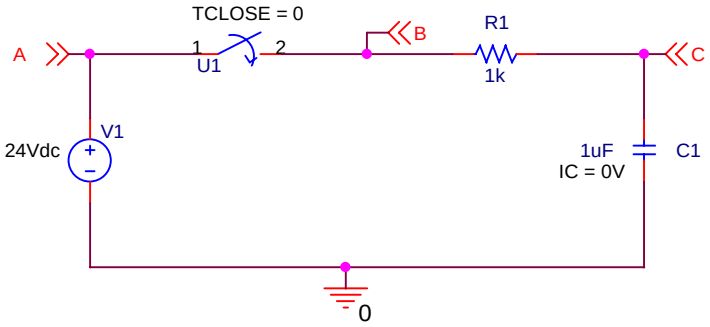
EGR 260
Circuit Analysis
File: RCSwitch.opj

Transient Analysis of an RC Circuit (using a switch)

Purpose: To graph the source, resistor, and capacitor voltages until they reach steady state

Analysis type: Transient. The final time will equal 5Tau = 5RC = 5(1k)(1uF) = 5 ms.



OFFPAGE symbols were added and labeled A, B, and C. Note that the source voltage is V(A), the resistor voltage is V(B,C), and the capacitor voltage is V(C).

An opening switch (Sw_tOpen) and a closing switch (Sw_tClose) can be found in the EVAL library.

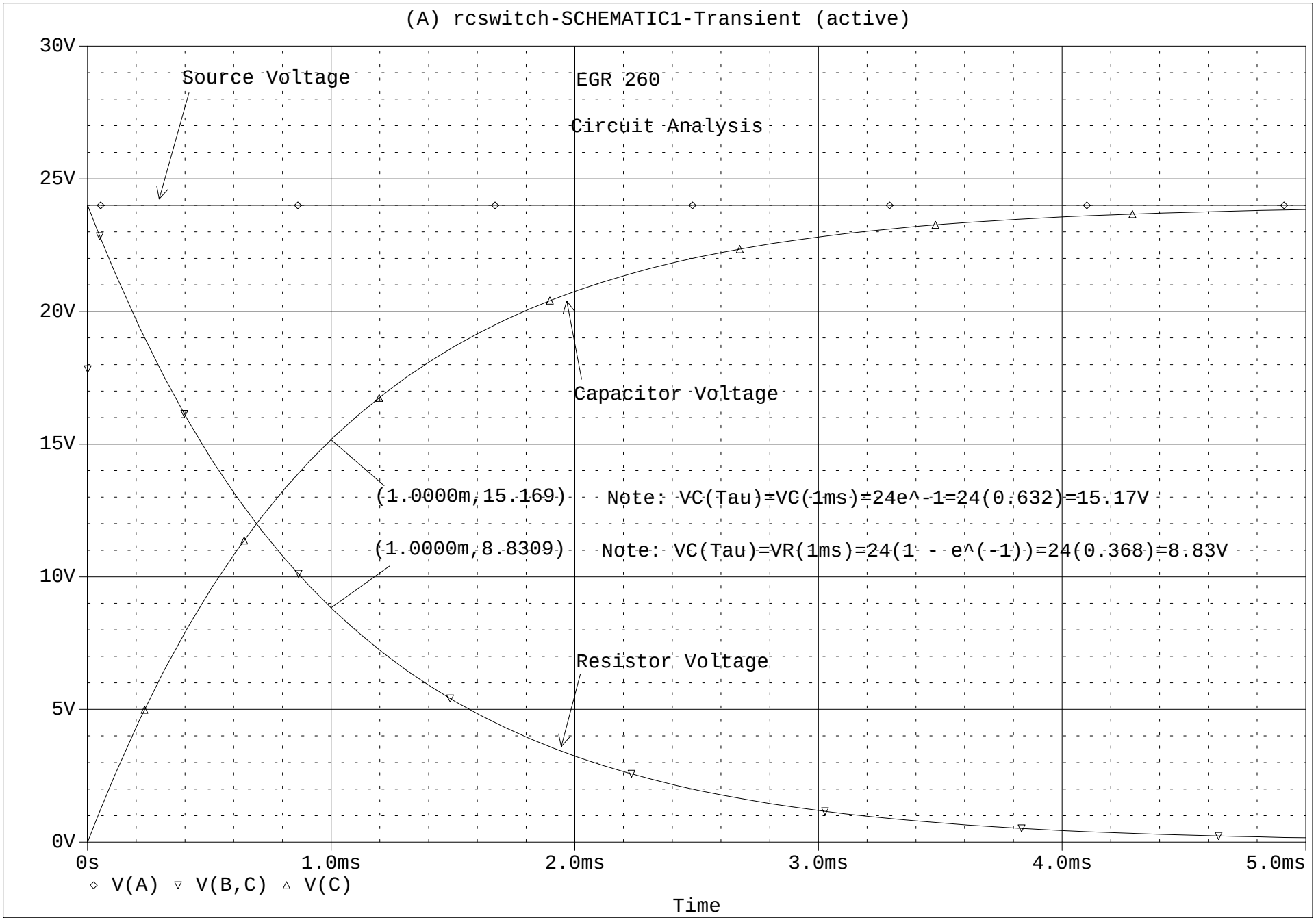
Note that initial conditions (IC) can be added to a capacitor or an inductor. See instructions below for displaying the IC attributes.

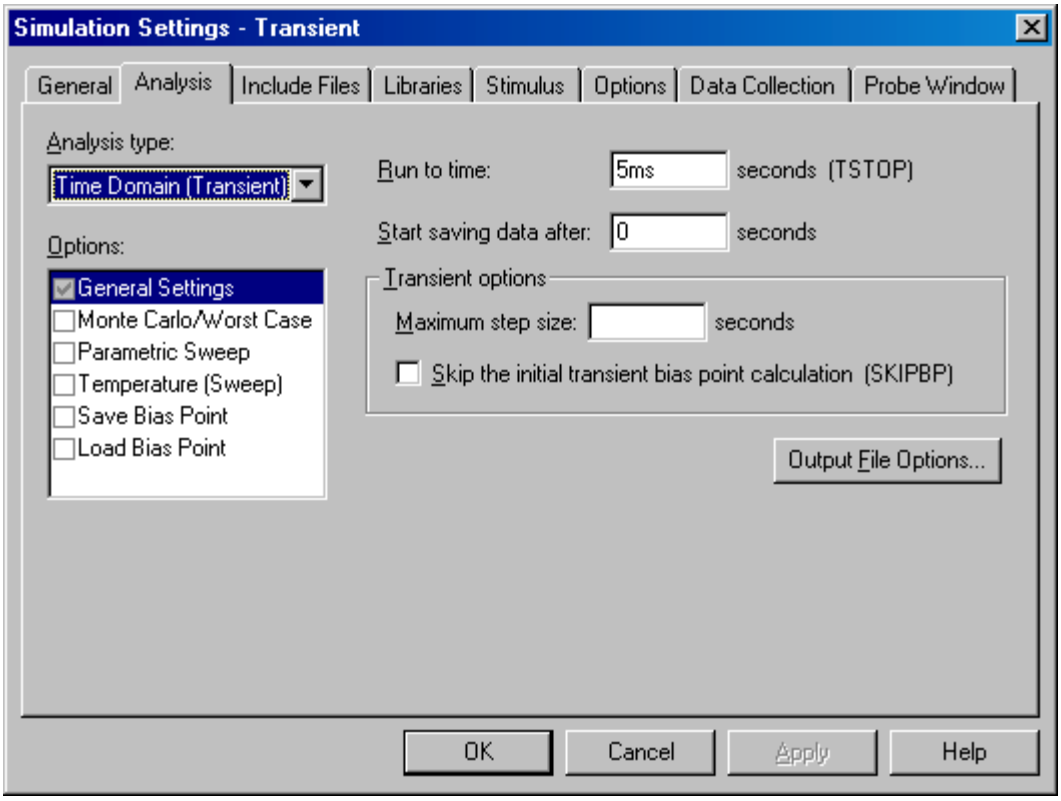
Edit attributes of parts as follows:
1) If the attribute appears next to the part, double click it and then change its value
2) If the attribute does not appear next to the part, double click on the part, find the desired attribute, right click on it and select DISPLAY. Then indicate what Display Format is desired. Once the attribute has been displayed, double-click on it and change the value.

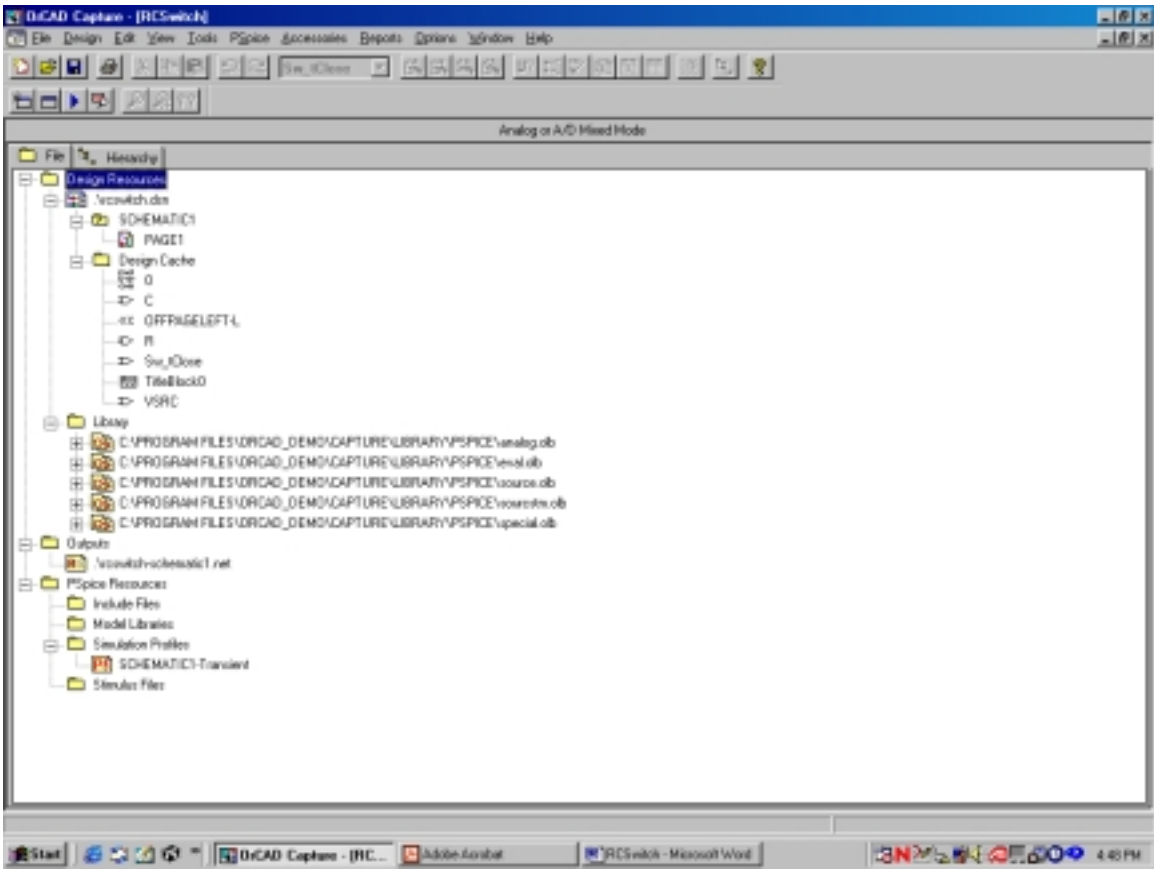
Title <Title>		
Size A	Document Number <Doc>	Rev <RevCode>
Date: Saturday, January 29	Sheet 1 of 1	

** circuit file for profile: Transient

Date/Time run: 01/29 16:33:23 Temperature: 27.0




Simulation Settings - Transient
General
Analysis
Include Files
Libraries
Stimulus
Options
Data Collection
Probe Window
Analysis type:
Time Domain (Transient)
Options:
General Settings
Monte Carlo/Worst Case
Parametric Sweep
Temperature (Sweep)
Save Bias Point
Load Bias Point
Run to time:
5ms
seconds (TSTOP)
Start saving data after:
0
seconds
Transient options
Maximum step size:
seconds
Skip the initial transient bias point calculation (SKIPBP)
Output File Options...
OK
Cancel
Apply
Help


OrCAD Capture - [RCSwitch]
Analog or A/D Mixed Mode
Design Resources
SCHEMATIC1
PAGE1
Design Cache
Library
Outputs
PSpice Resources
Include Files
Model Libraries
Simulation Profiles
Stimulus Files