

# OrCAD 'QUICK START' Guide #3

## Running a Simulation with PSpice A/D

### Step #1 - Creating a Simulation Profile

Before you configure a simulation type, you need to have edited the circuit's part values, eg voltages, resistances, etc. If you need to review how to do this, refer:

Step #5 – Editing Part Values in QUICK START Guide #2 - Designing a Circuit with Capture.

Then, before you run a simulation, you must create a simulation profile.

To create a profile, choose the menu path **PSpice — New Simulation Profile** and then give it a name in the New Simulation dialogue box as shown in Figure 8.

**Note:** You can click the 'Open Design' button to open a project with a simulation profile created for you. Choose **PSpice — Edit Simulation Profile** to open the profile and view its settings.

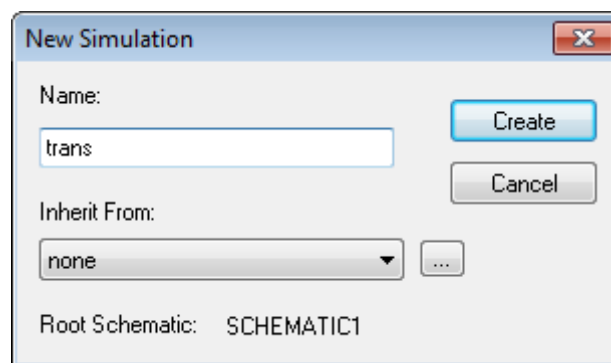


Figure 8. New Simulation Dialogue Box

Click **Create** to open the **Simulation Settings** dialogue box, as shown in Figure 9.

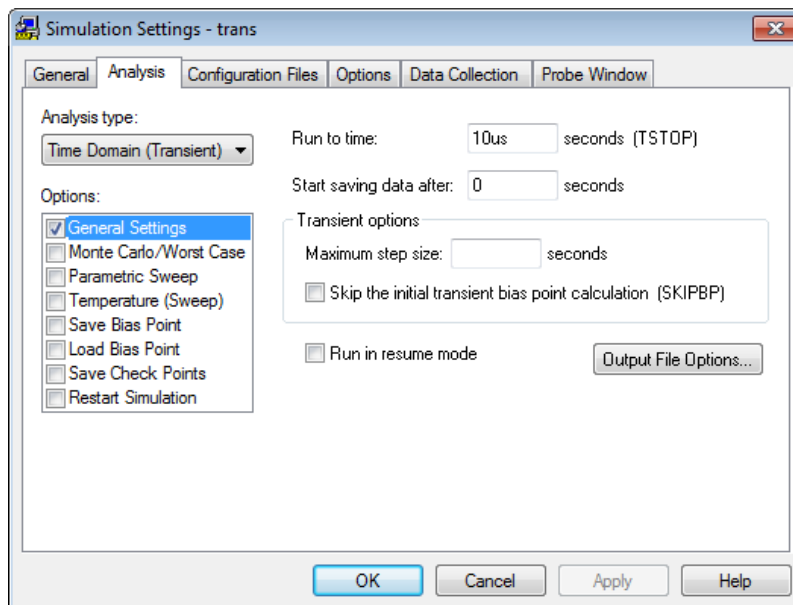


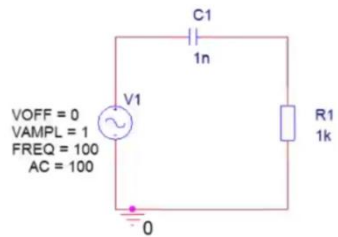
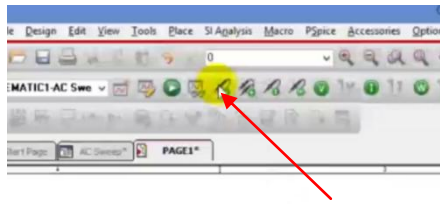
Figure 9. Simulation Settings Dialogue Box

You can specify any of the analysis types, set various parameters for the simulation profile, and select different options for that simulation type.

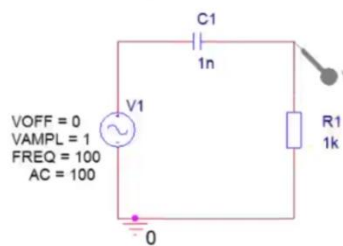
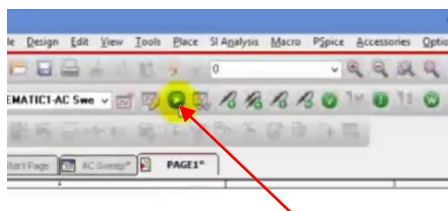
Once done, select **OK**, which returns you to the circuit schematic.

## Step #2 – Starting a simulation run

Before starting a simulation run, you need to place a probe (or probes) at the points you wish to measure a characteristic, such as voltage.



Once you've placed the appropriate probe, you can start the run by selecting the RUN icon in the top menu bar.



Alternately, you can use the menu path *PSpice / Run*.

### Step #3 - Viewing Results

The Probe window, as shown in Figure 10, opens after a simulation is complete.

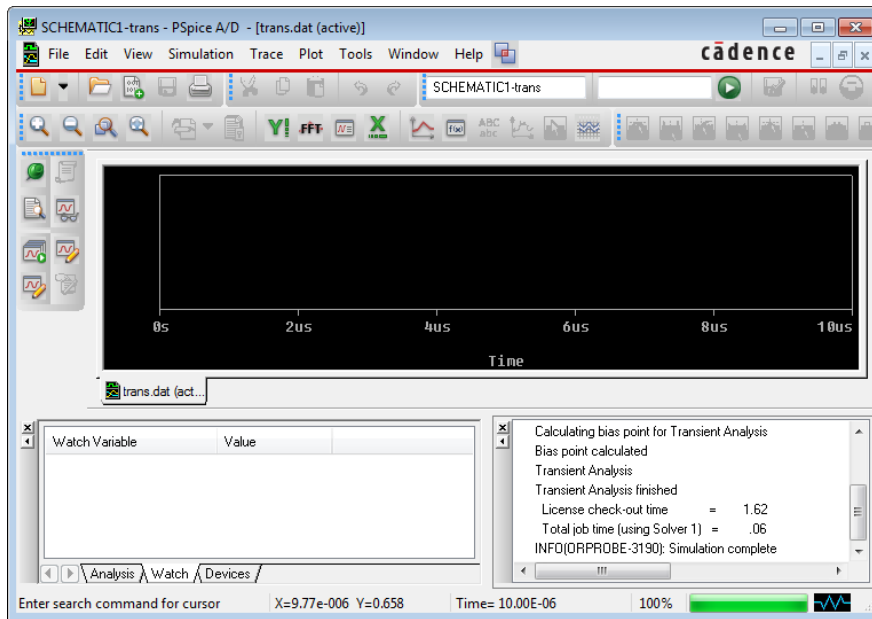


Figure 10. PSpice Probe Window

You will display the waveform for the voltage at *pin 2* of the capacitor, C1.

Choose *Trace — Add Trace* to open the Add Traces window. Select *V(C1:2)*, as shown in Figure 11, and click *OK*.

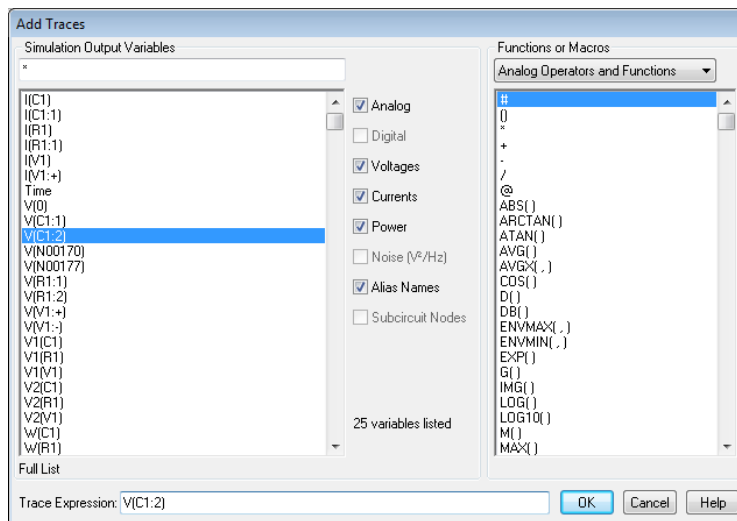


Figure 11. Add Traces Window

The resultant waveform is displayed in the probe window, as shown in Figure 12.

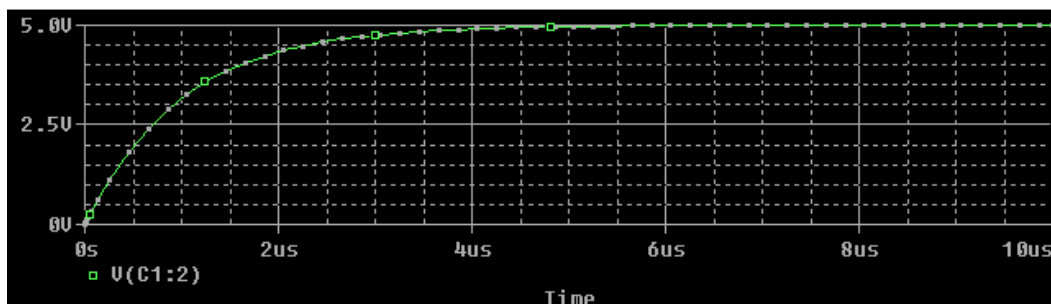


Figure 12. Resultant Waveform

<b>A Selection of PSpice How-To Videos</b>	
<b>Getting Started</b>	<a href="https://www.youtube.com/watch?v=mglyHxZ9Qkc&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO&amp;index=6">https://www.youtube.com/watch?v=mglyHxZ9Qkc&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO&amp;index=6</a>
<b>Simulation Types Tutorial</b>	<a href="https://www.youtube.com/watch?v=qhkVgKYoo04&amp;index=3&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO">https://www.youtube.com/watch?v=qhkVgKYoo04&amp;index=3&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO</a>
<b>Monte Carlo Tutorial</b>	<a href="https://www.youtube.com/watch?v=tFyMdOSAY_4&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO">https://www.youtube.com/watch?v=tFyMdOSAY_4&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO</a>
<b>Parametric Analysis Tutorial</b>	<a href="https://www.youtube.com/watch?v=vaiRDV/M9oy8&amp;index=2&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO">https://www.youtube.com/watch?v=vaiRDV/M9oy8&amp;index=2&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO</a>
<b>PSpice How-To Videos related to the text book 'Analog Design and Simulation using OrCAD Capture and PSpice' *</b>	
<b>PSpice Simple Circuit Exercise Page 13</b>	<a href="https://www.youtube.com/watch?v=KxrlxFHzQnM&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO&amp;index=12">https://www.youtube.com/watch?v=KxrlxFHzQnM&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO&amp;index=12</a>
<b>PSpice Simple Circuit Exercise Page 57</b>	<a href="https://www.youtube.com/watch?v=iCiw_Ha48rQ&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO&amp;index=13">https://www.youtube.com/watch?v=iCiw_Ha48rQ&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO&amp;index=13</a>
<b>PSpice Simple Circuit Exercise Page 74</b>	<a href="https://www.youtube.com/watch?v=8UTCnuAmopw&amp;index=14&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO">https://www.youtube.com/watch?v=8UTCnuAmopw&amp;index=14&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO</a>
<b>PSpice Simple Circuit Exercise Page 131</b>	<a href="https://www.youtube.com/watch?v=xy0qkdSvnW8&amp;index=15&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO">https://www.youtube.com/watch?v=xy0qkdSvnW8&amp;index=15&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO</a>
<b>PSpice simple circuit Exercise Page 138</b>	<a href="https://www.youtube.com/watch?v=B76-szcdNyM&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO&amp;index=16">https://www.youtube.com/watch?v=B76-szcdNyM&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO&amp;index=16</a>
<b>PSpice simple circuit Exercise Page 151</b>	<a href="https://www.youtube.com/watch?v=B2n-HOUTSEk&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO&amp;index=17">https://www.youtube.com/watch?v=B2n-HOUTSEk&amp;list=PLCgZ9VoSvNf1KC1wnrpO86Cp3M1eA9LO&amp;index=17</a>

\* Copies can be purchased online at: [www.ecadtools.com.au/student-registration.html](http://www.ecadtools.com.au/student-registration.html)