

PSIM TOOL STUDY

박현우

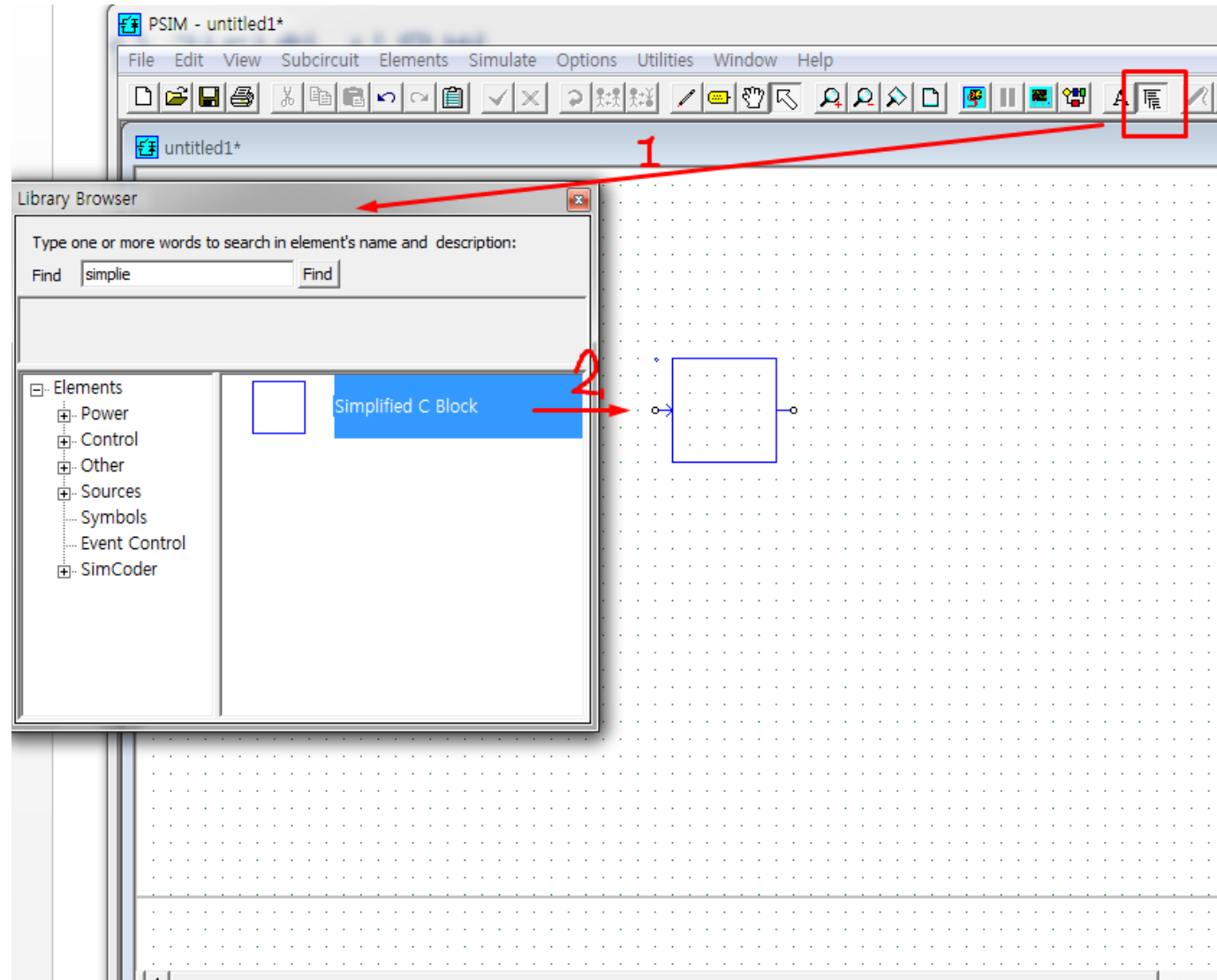
phw820@naver.com

목차

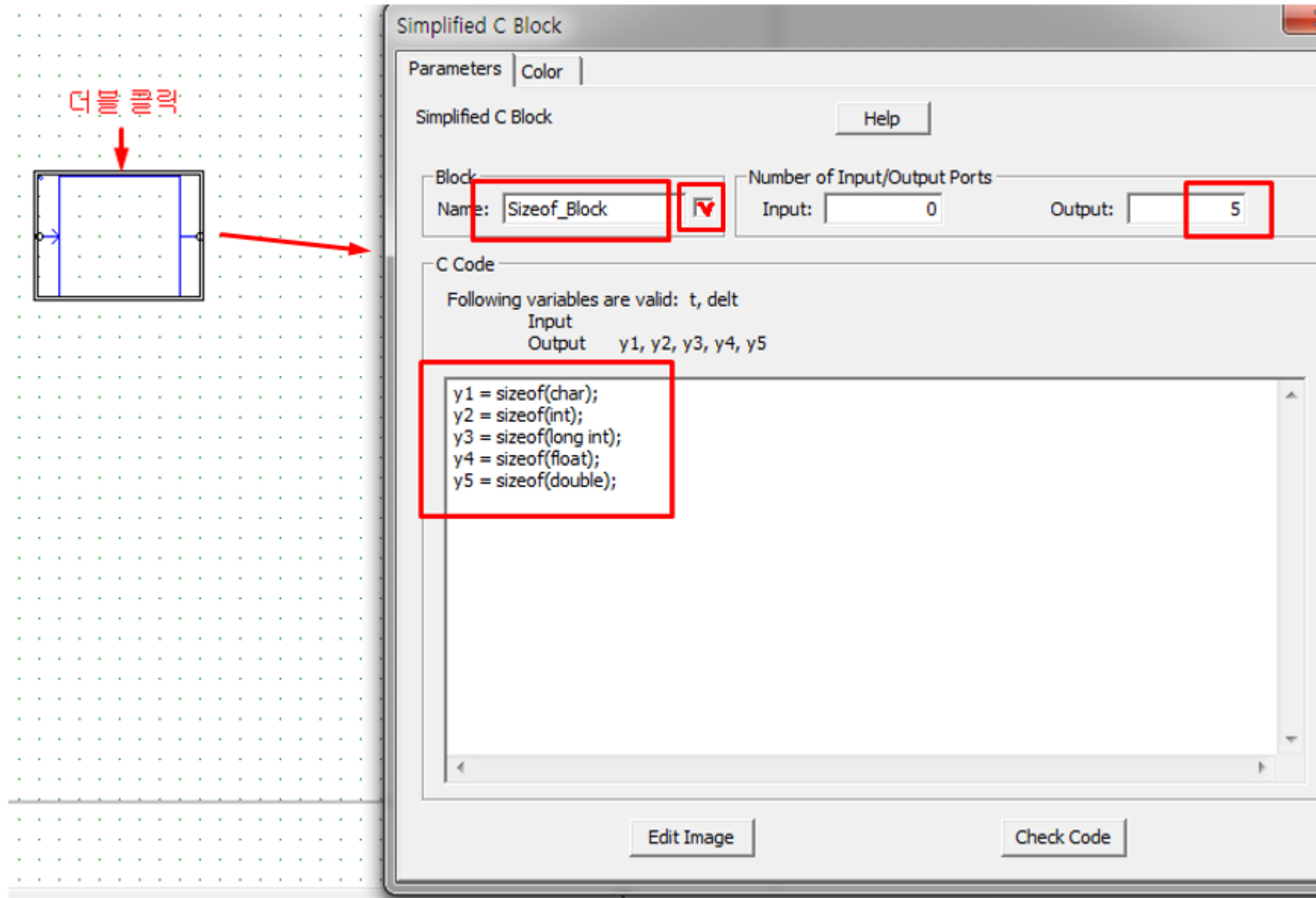
PSIM 사용해보기 2

- 4) C언어의 Sizeof 기능(C block 활용)
- 5) C언어로 시뮬레이션 하기(Simplified C Block 활용)
- 6) C언어로 시뮬레이션 하기(C Block 활용)
- 7) subcircuit 만들기
- 8) Personal Library 만들기

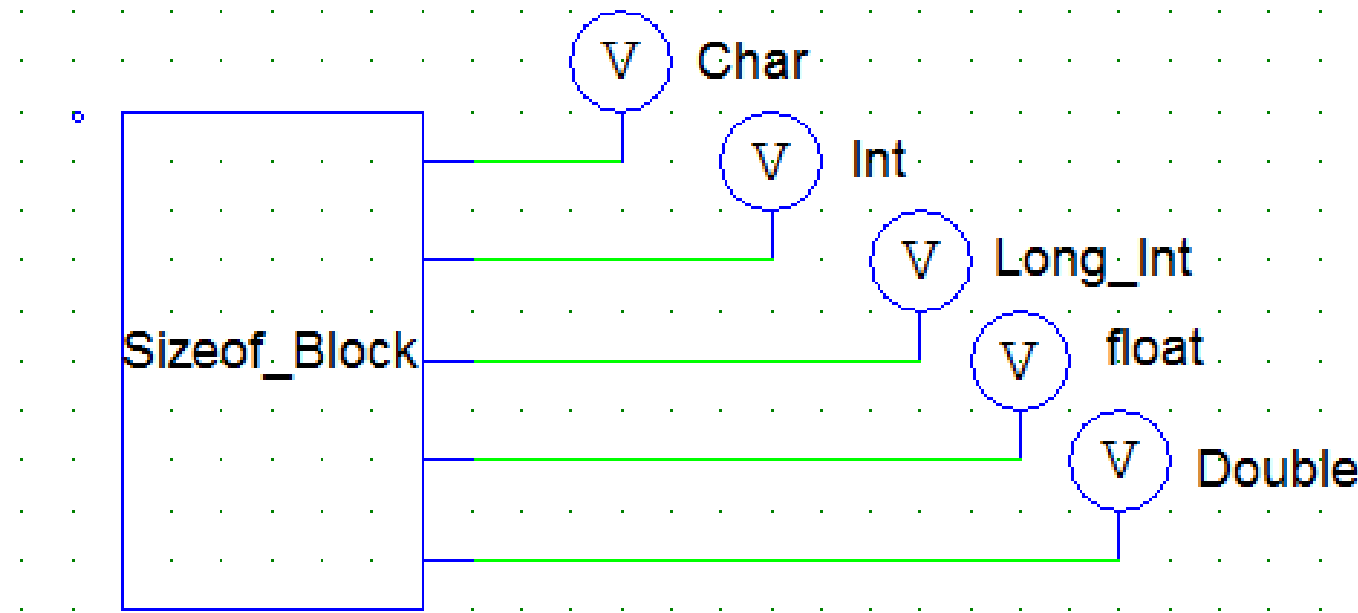
4) C언어의 Sizeof 기능 (C block 활용) 1



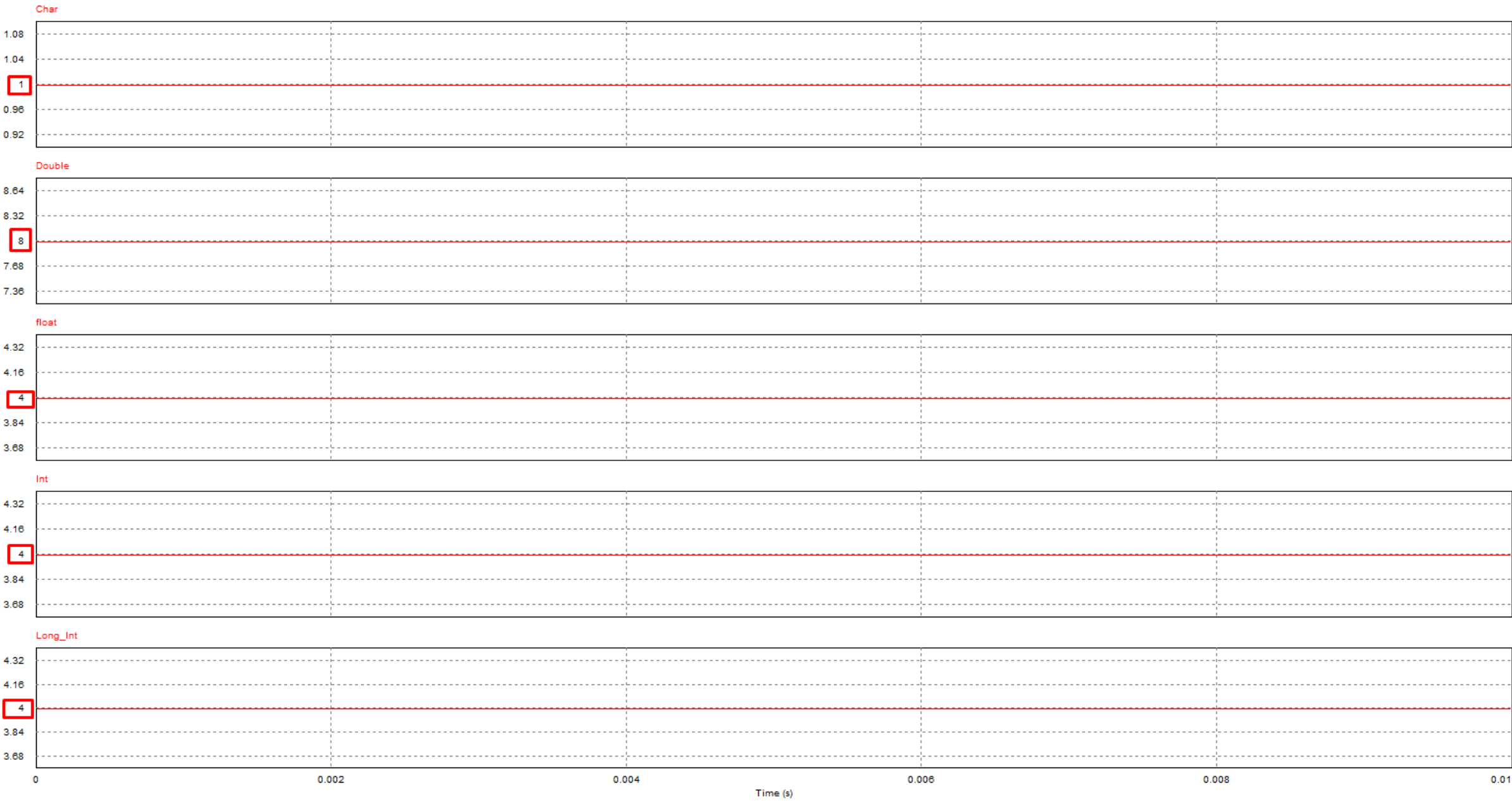
4) C언어의 Sizeof 기능 (C block 활용) 2



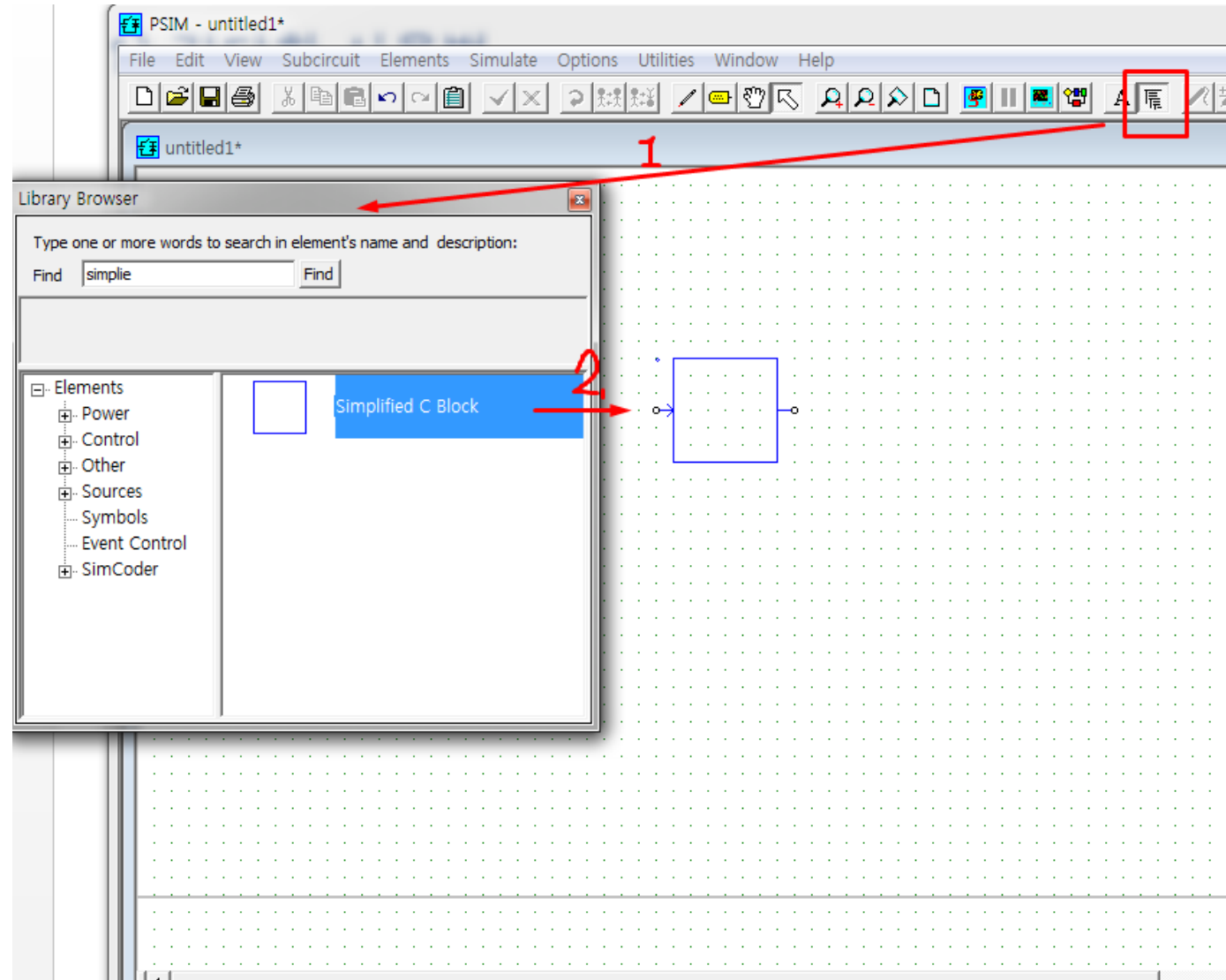
4) C언어의 Sizeof 기능 (C block 활용) 3



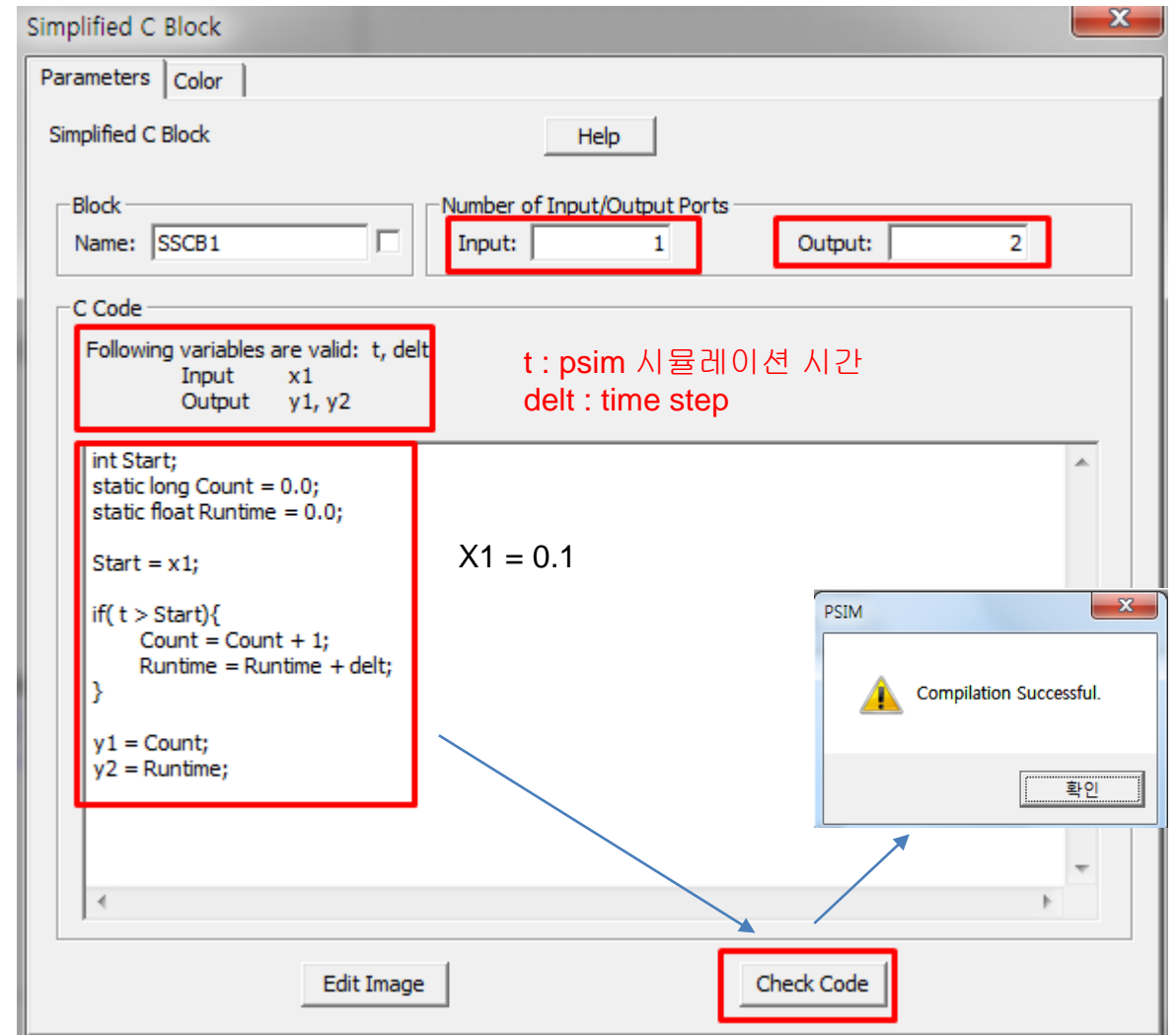
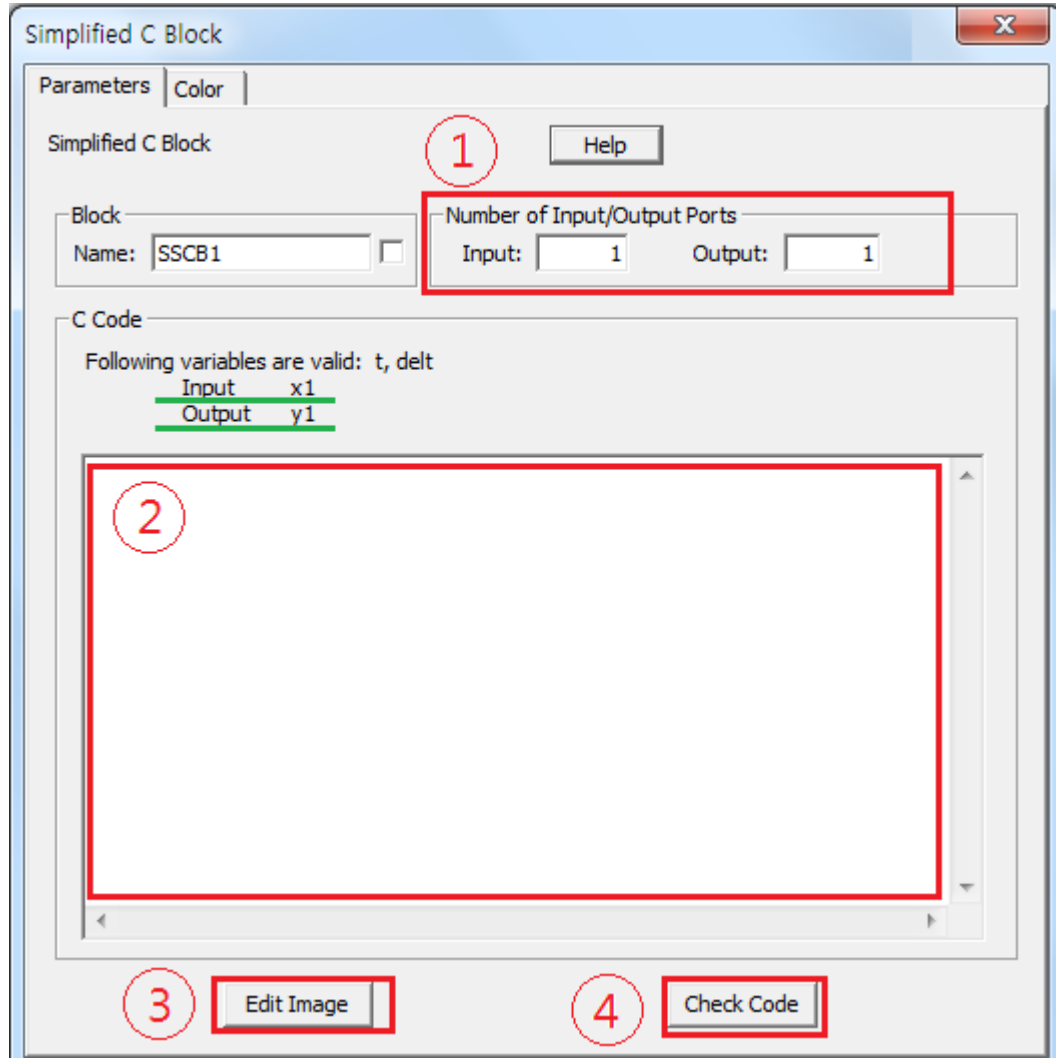
4) C언어의 Sizeof 기능 (C block 활용) 4



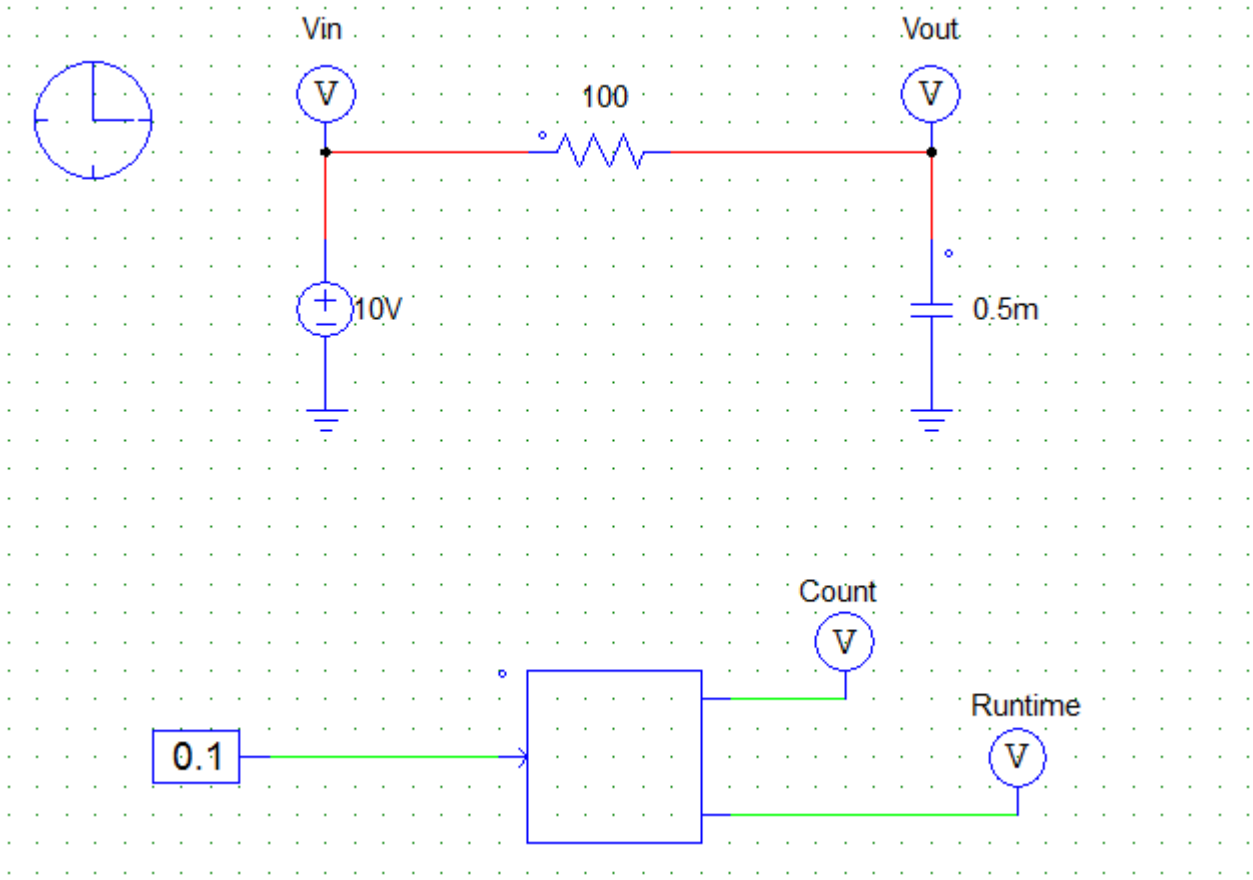
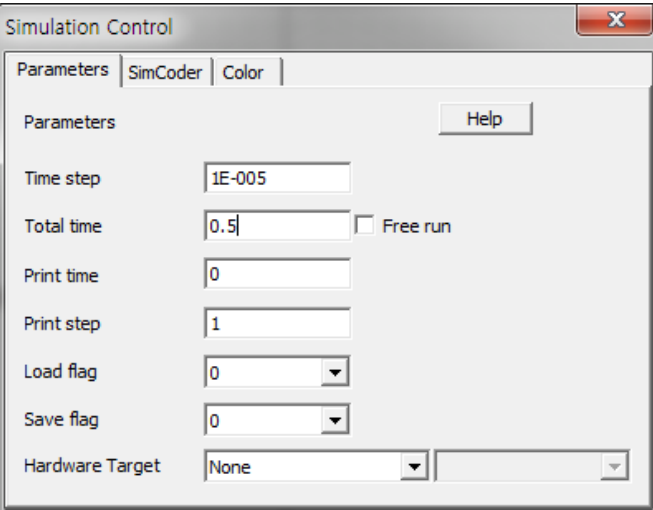
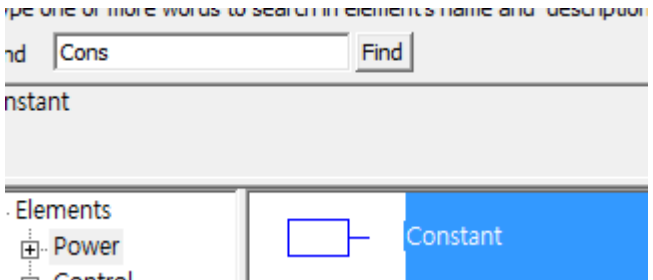
4) C언어로 시뮬레이션 하기(Simplified C Block 활용) 1



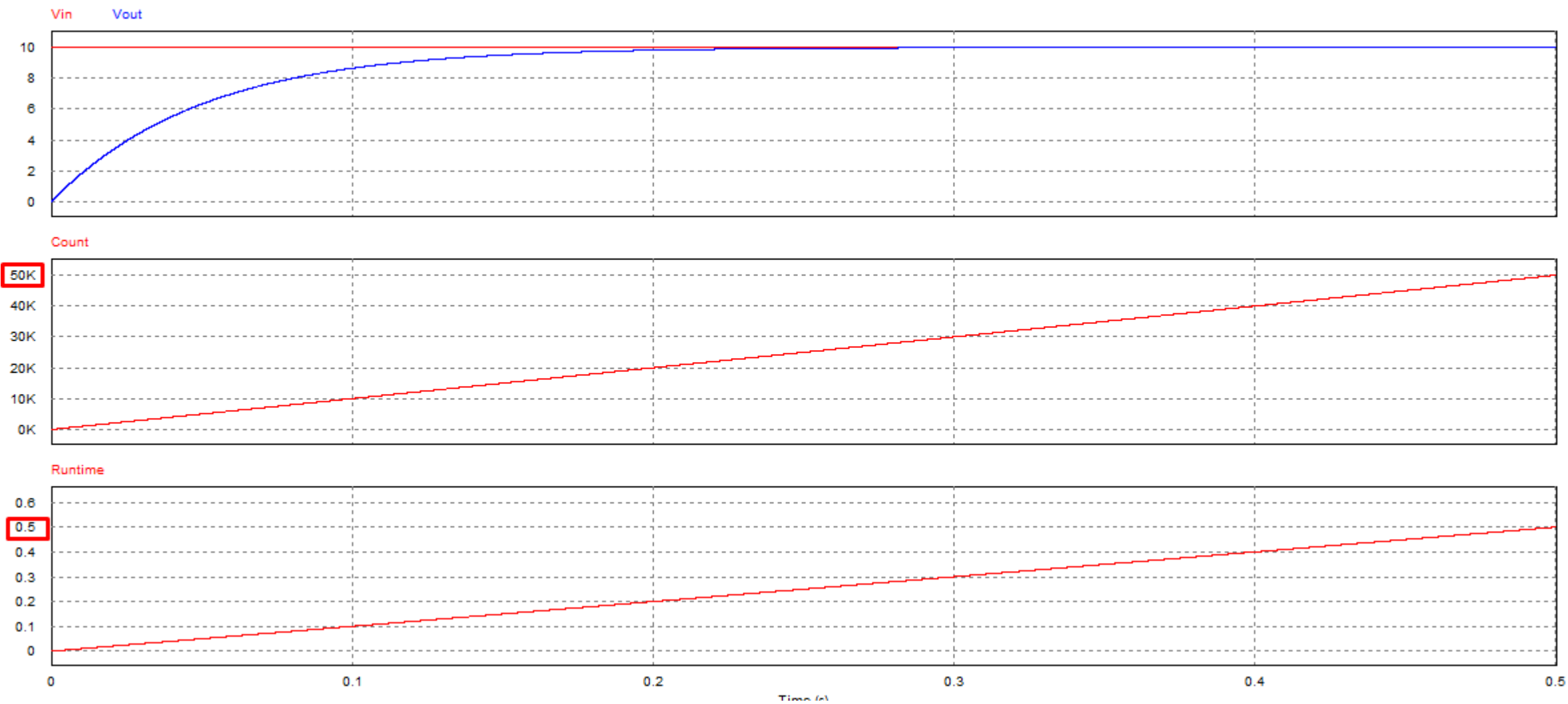
5) C언어로 시뮬레이션 하기(Simplified C Block 활용) 2



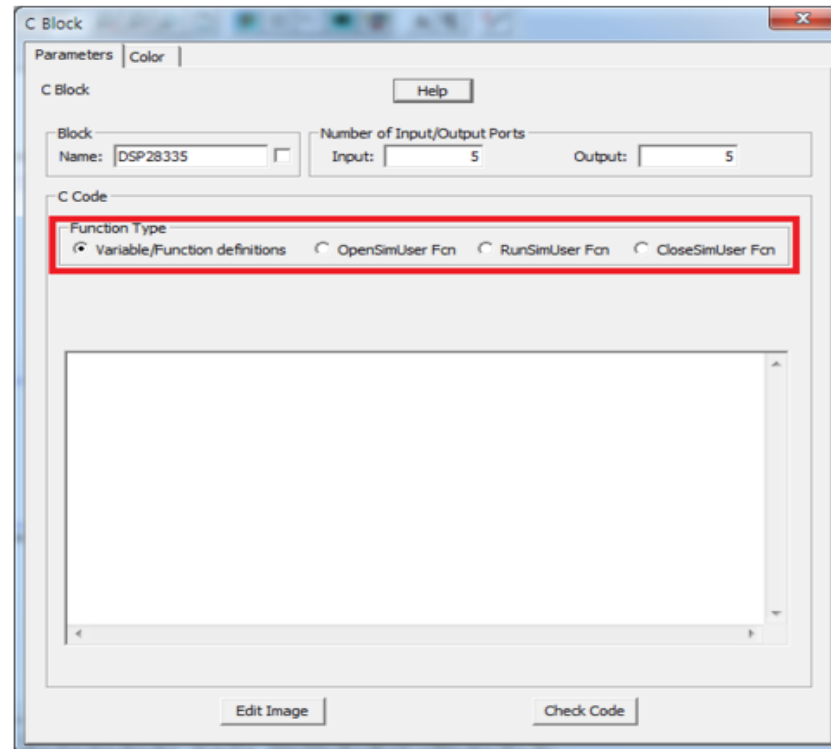
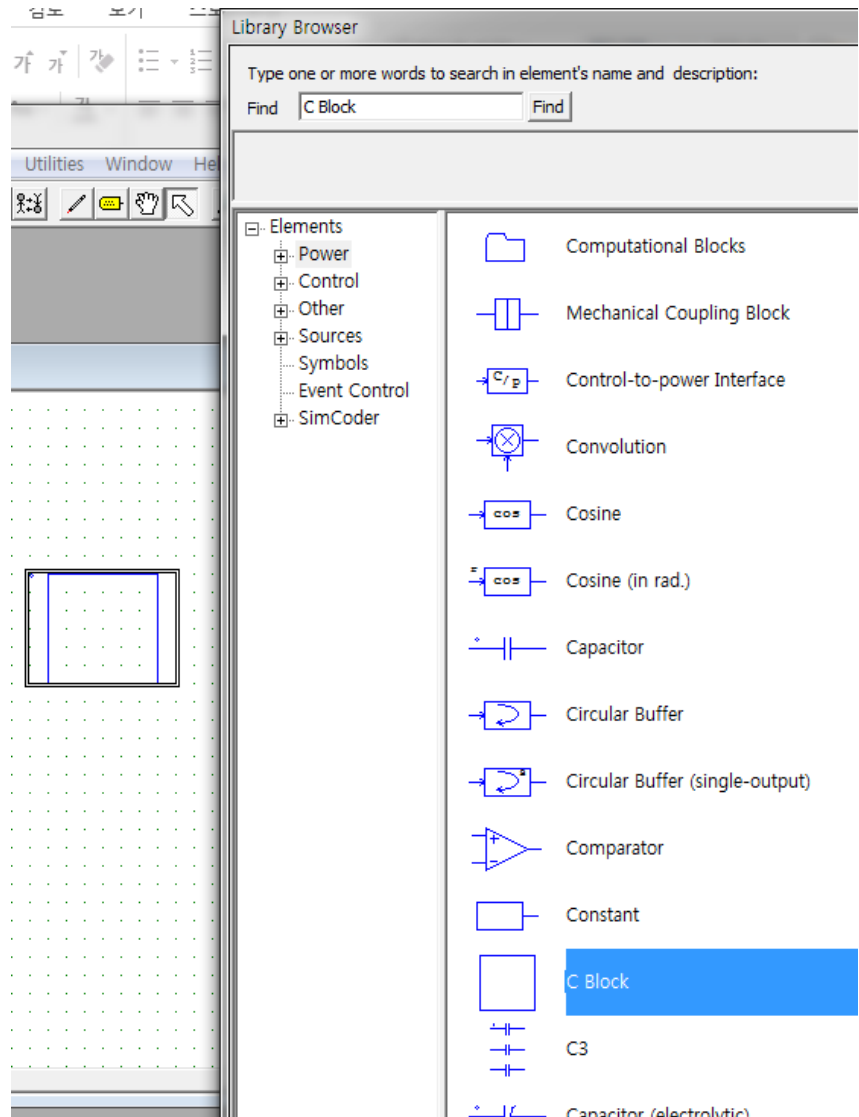
5) C언어로 시뮬레이션 하기(Simplified C Block 활용) 3



5) C언어로 시뮬레이션 하기(Simplified C Block 활용) 4



6) C언어로 시뮬레이션 하기(C Block 활용) 1



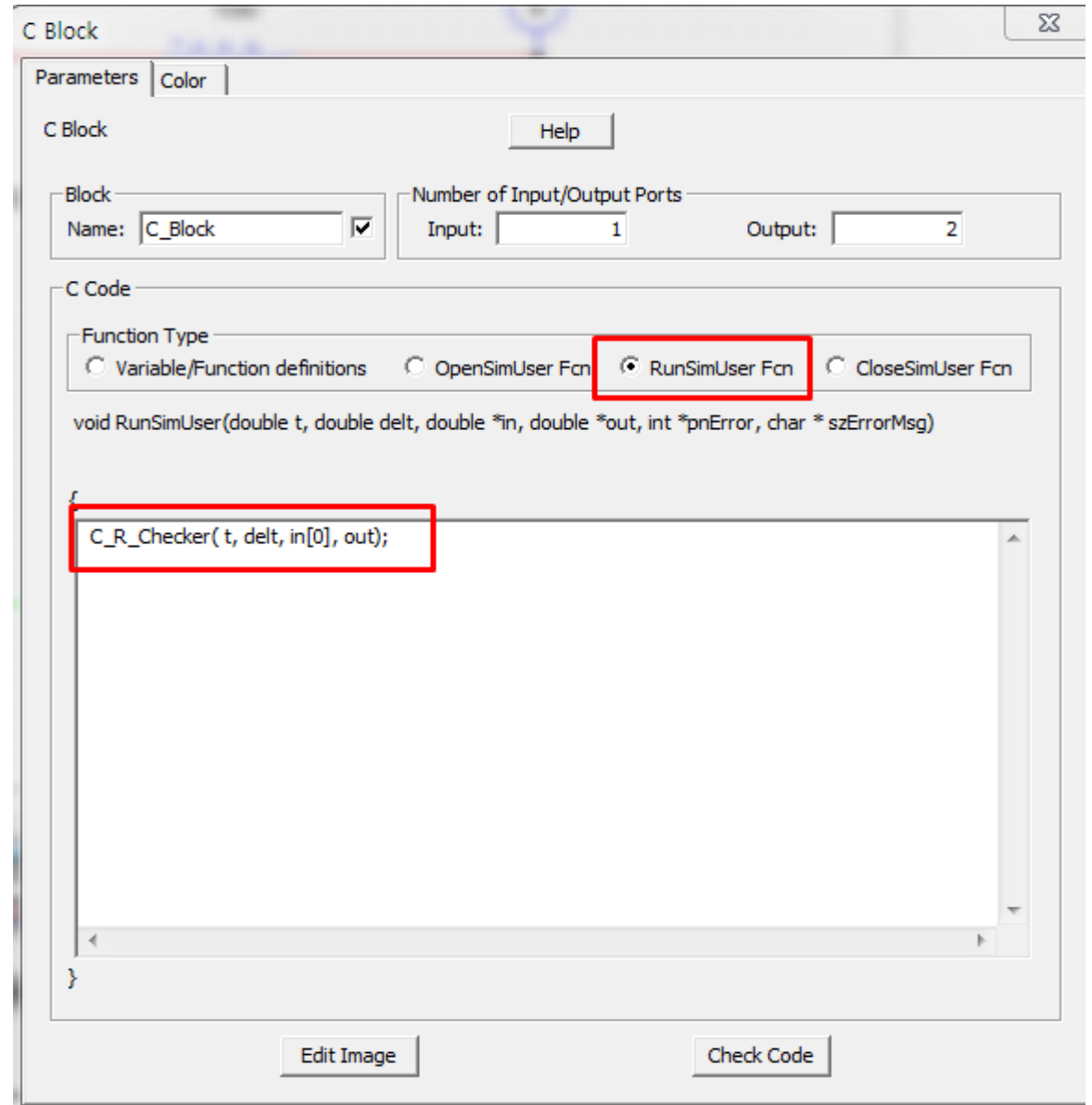
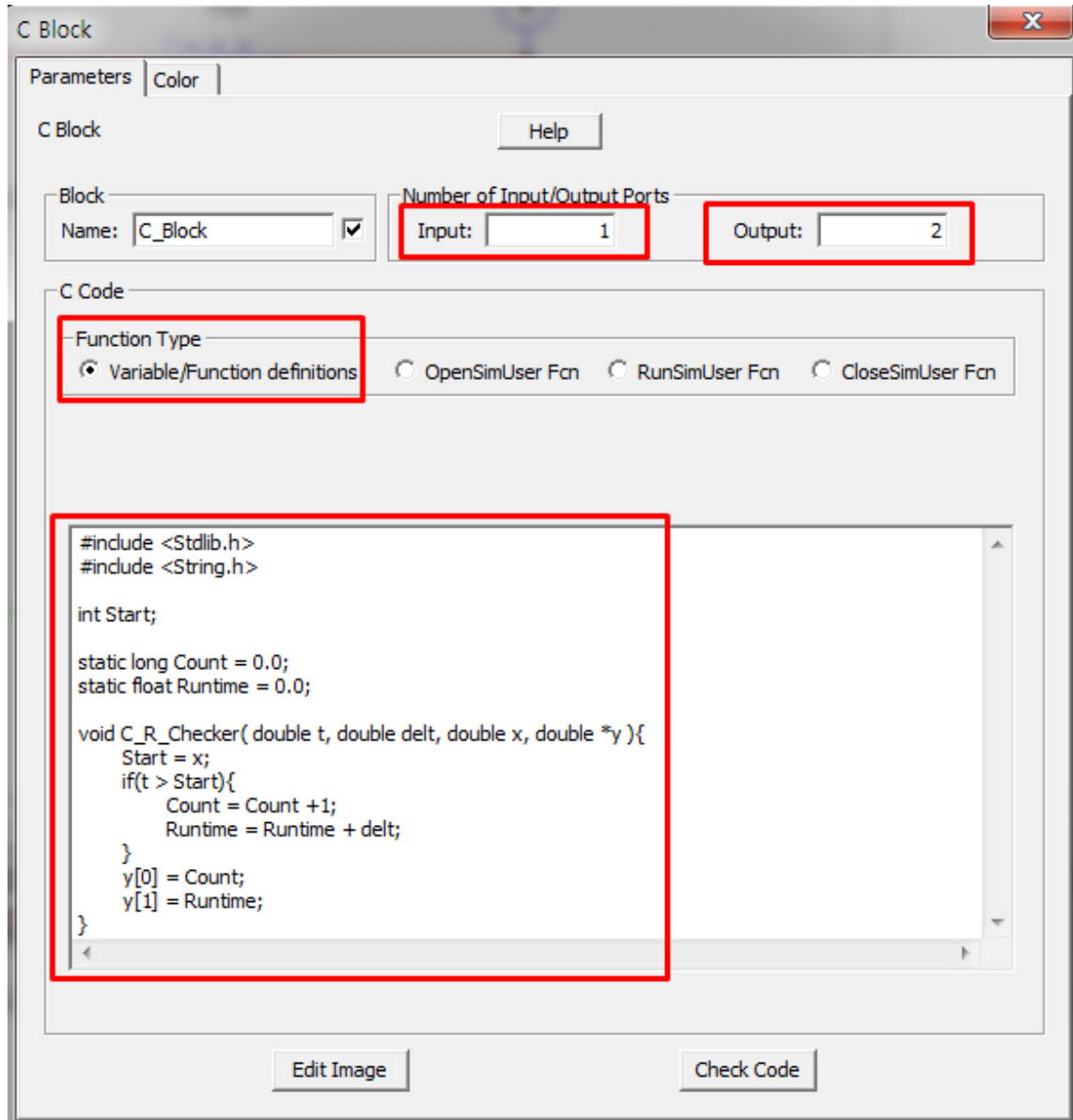
Variable/Function definitions : 이 탭은 Header 파일 역할을 하며, #include, #define, variable, function 설정 하는데 쓰입니다.

OpenSimUser Fcn : 시뮬레이션이 시작될 때 1회만 실행되며, 시뮬레이션 동작에서 필요할 경우 사용합니다.

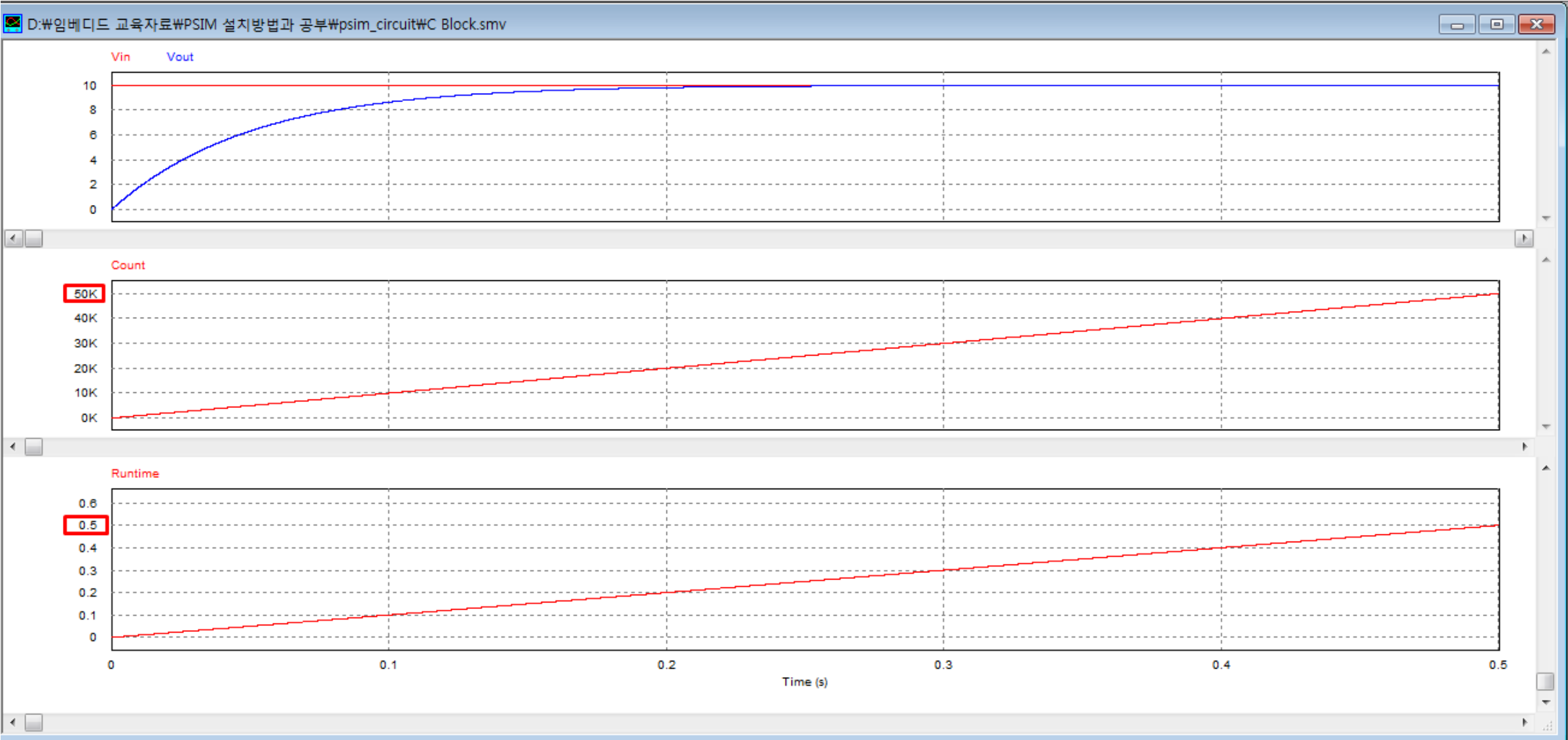
RunSimUser Fcn : 시뮬레이션의 메인 코드를 이곳에 입력하여 사용합니다.

CloseSimUser Fcn : OpenSim User Fcn과 반대로 시뮬레이션이 끝날 때 1회만 실행되며, 시뮬레이션 동작에서 필요할 경우 사용합니다.

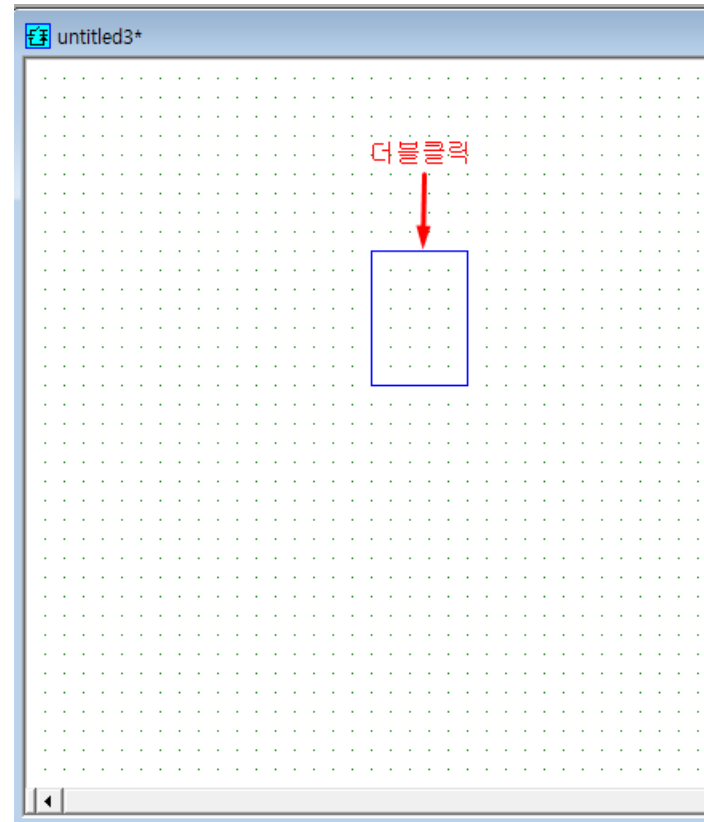
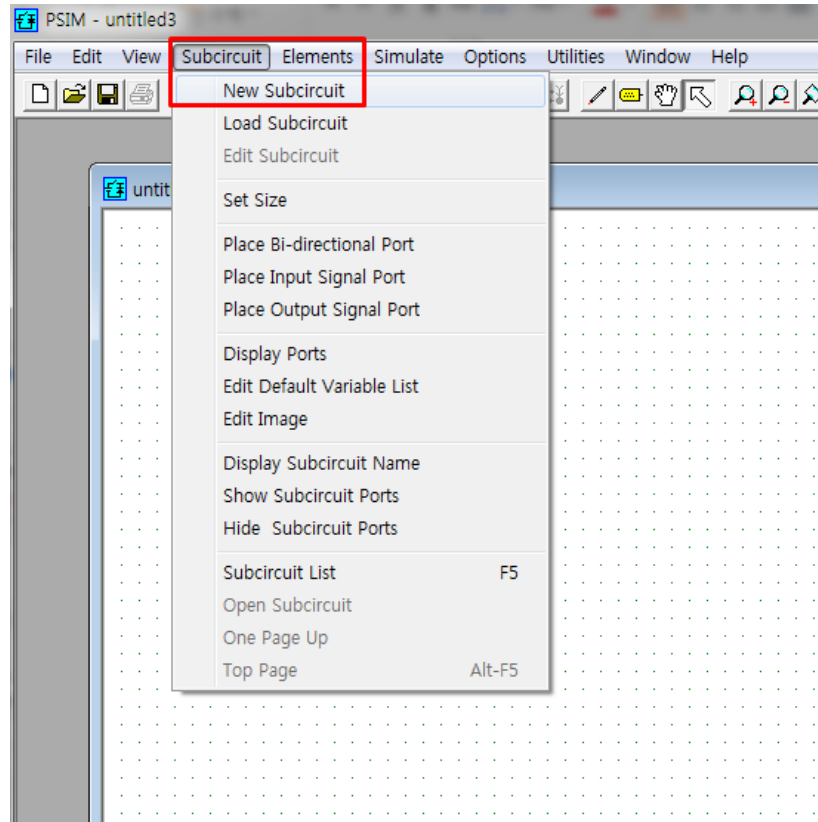
6) C언어로 시뮬레이션 하기(C Block 활용) 2



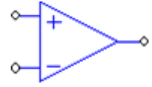
6) C언어로 시뮬레이션 하기(C Block 활용) 3



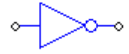
7) Subcircuit 만들기 1



7) Subcircuit 만들기 2



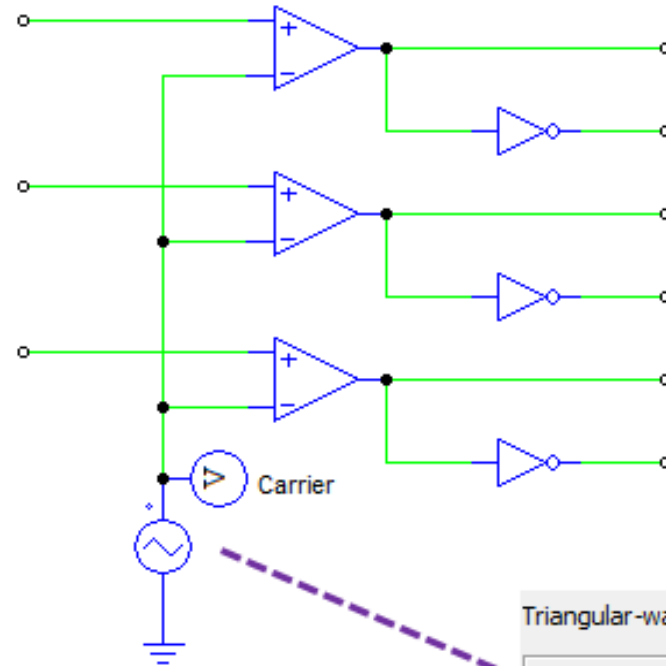
Elements > Control > Comparator



Elements > Control > Logic Elements > NOT Gate



Elements > Sources > Voltage > Triangular

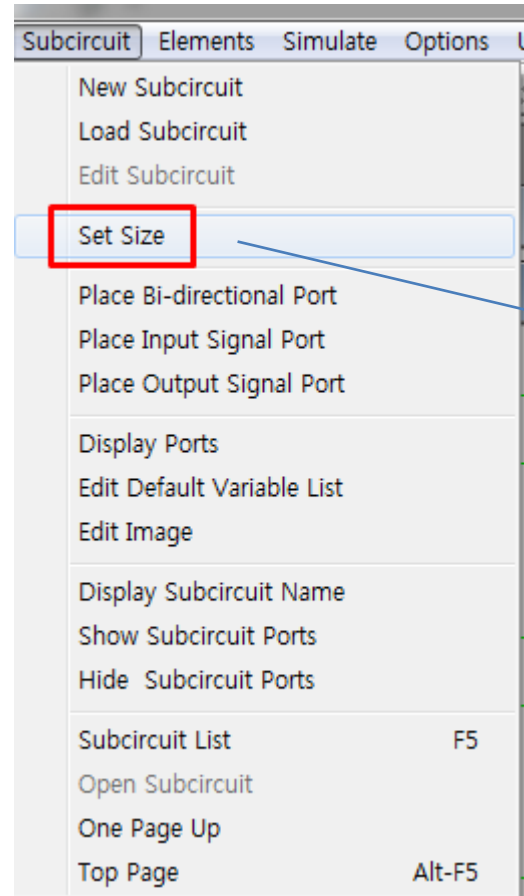


Triangular-wave voltage source Help

		Display
Name	VTRI1	<input type="checkbox"/>
V_peak_to_peak	Vdc_S1	<input type="checkbox"/> ▾
Frequency	Frequency_S1	<input type="checkbox"/> ▾
Duty Cycle	0.5	<input type="checkbox"/> ▾
DC Offset	-Vdc_S1*0.5	<input type="checkbox"/> ▾
Tstart	0	<input type="checkbox"/> ▾
Phase Delay	0	<input type="checkbox"/> ▾

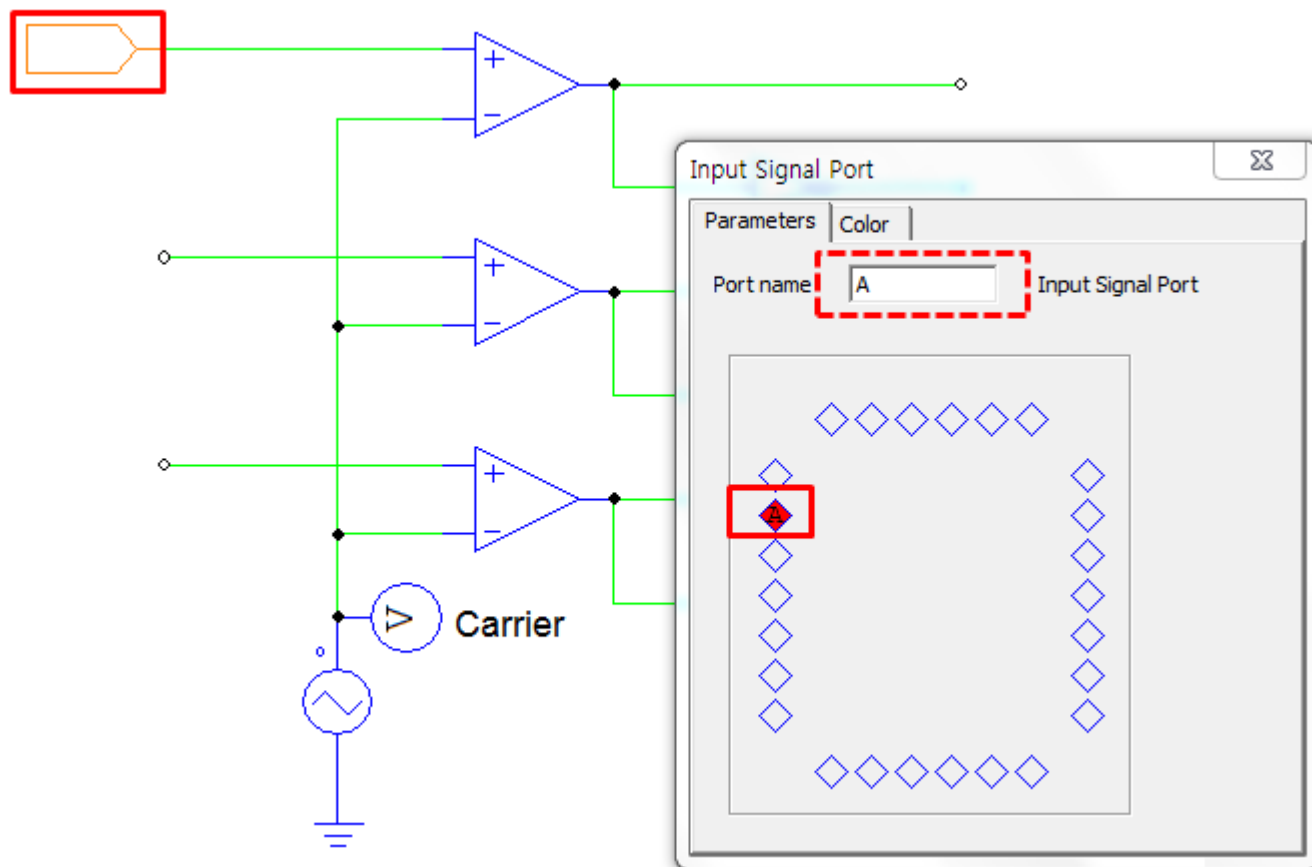
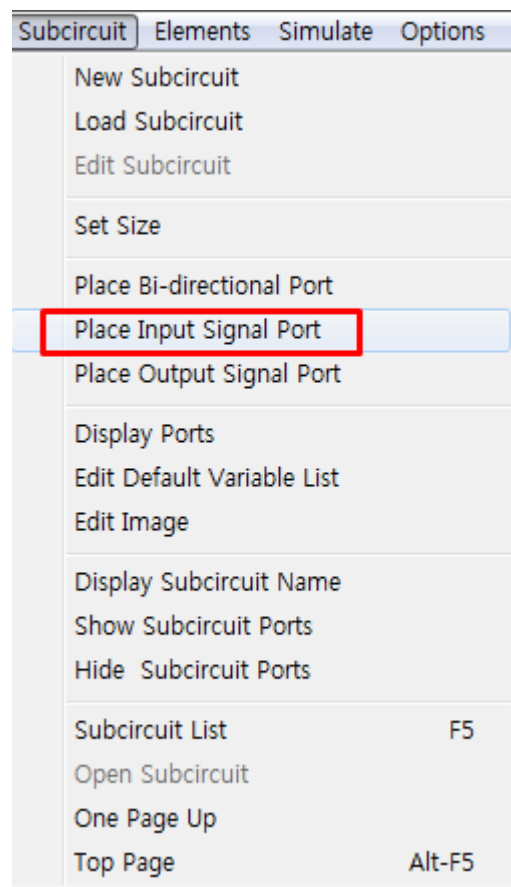
-Phase PWM Module 회로

7) Subcircuit 만들기 3

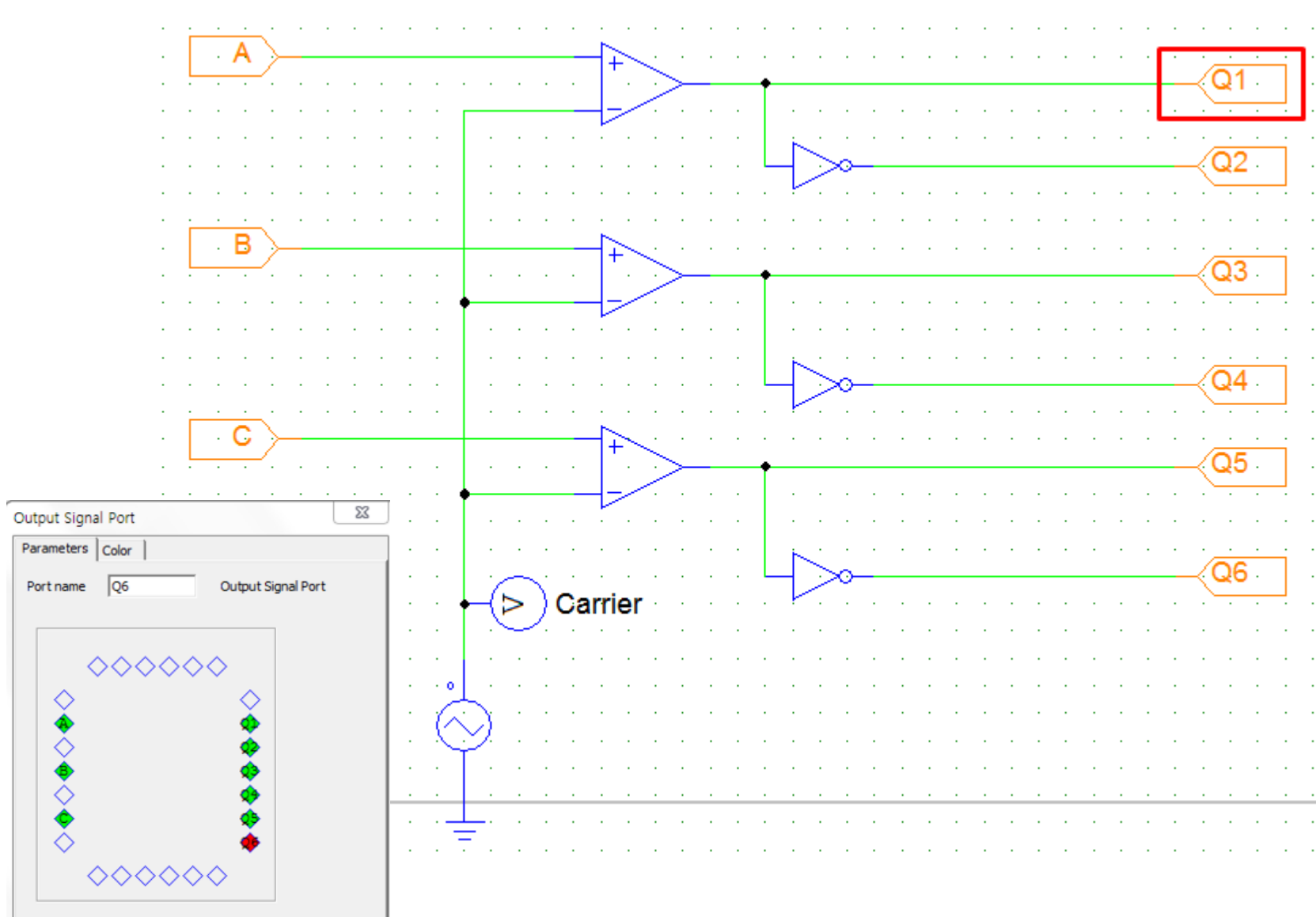
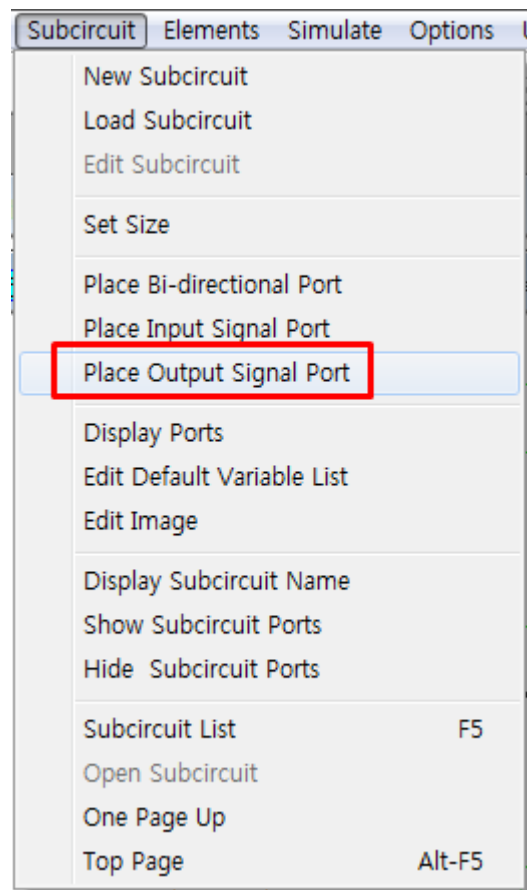


A dialog box for setting the size of a subcircuit. It contains two input fields: 'Width' with the value '7' and 'Height' with the value '8'. Both fields have dropdown arrows. To the right of the fields are two buttons: 'OK' and 'Cancel'.

7) Subcircuit 만들기 4



7) Subcircuit 만들기 5



7) Subcircuit 만들기 6

A

B

C

Q1

Q2

Q3

Q4

Q5

Q6

Subcircuit Click > F4 Key

Variable Description	Variable Name	Variable Value
<input type="checkbox"/> Vdc	Vdc_S1	200
<input type="checkbox"/> Frequency	Frequency_S1	20k

Add

Modify

Remove

Set as Default Variables

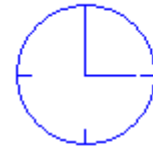
Reload Default Variables

☐ Replace subcircuit with generated code for simulation

Generate Code

7) Subcircuit 만들기 7

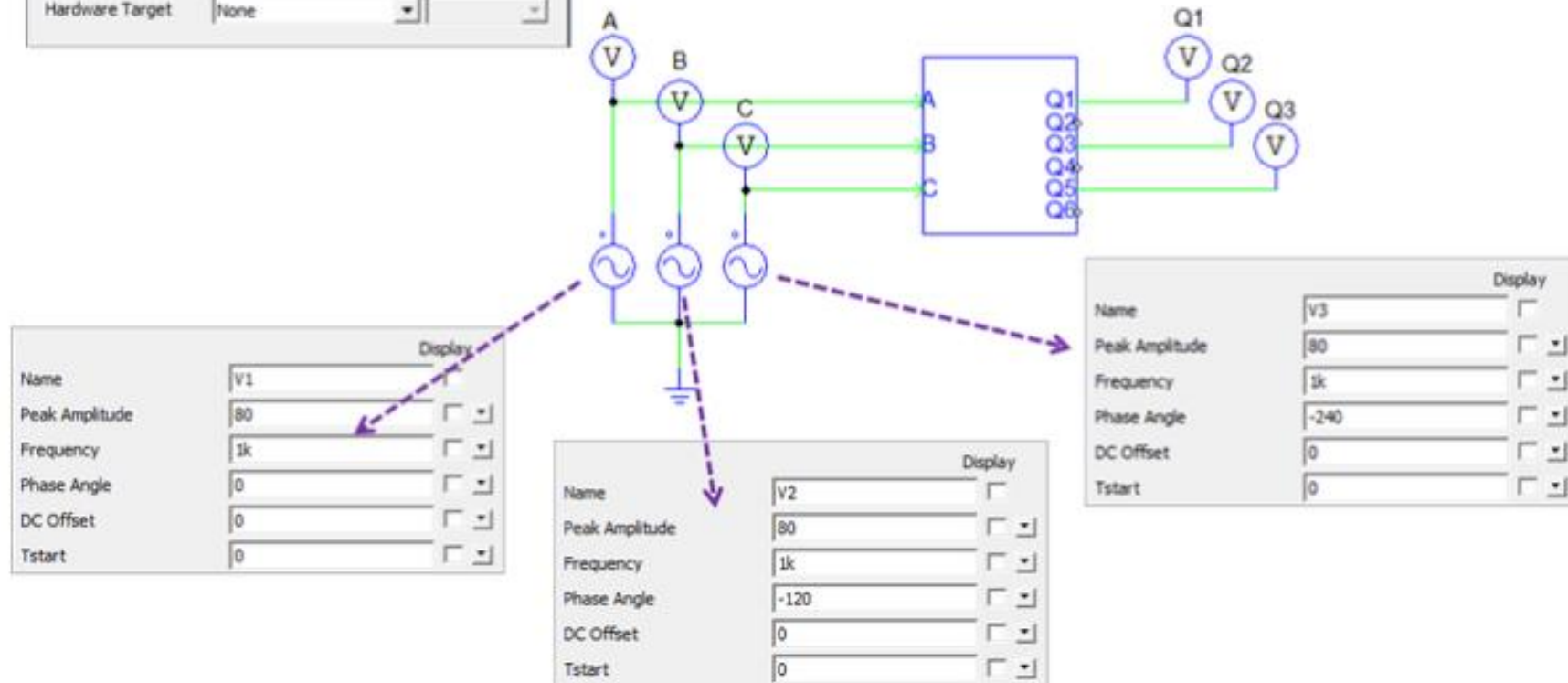
Parameters	SimCoder	Color
Parameters Help		
Time step	1E-006	
Total time	0.01	<input type="checkbox"/> Free run
Print time	0	
Print step	1	
Load flag	0	
Save flag	0	
Hardware Target	None	



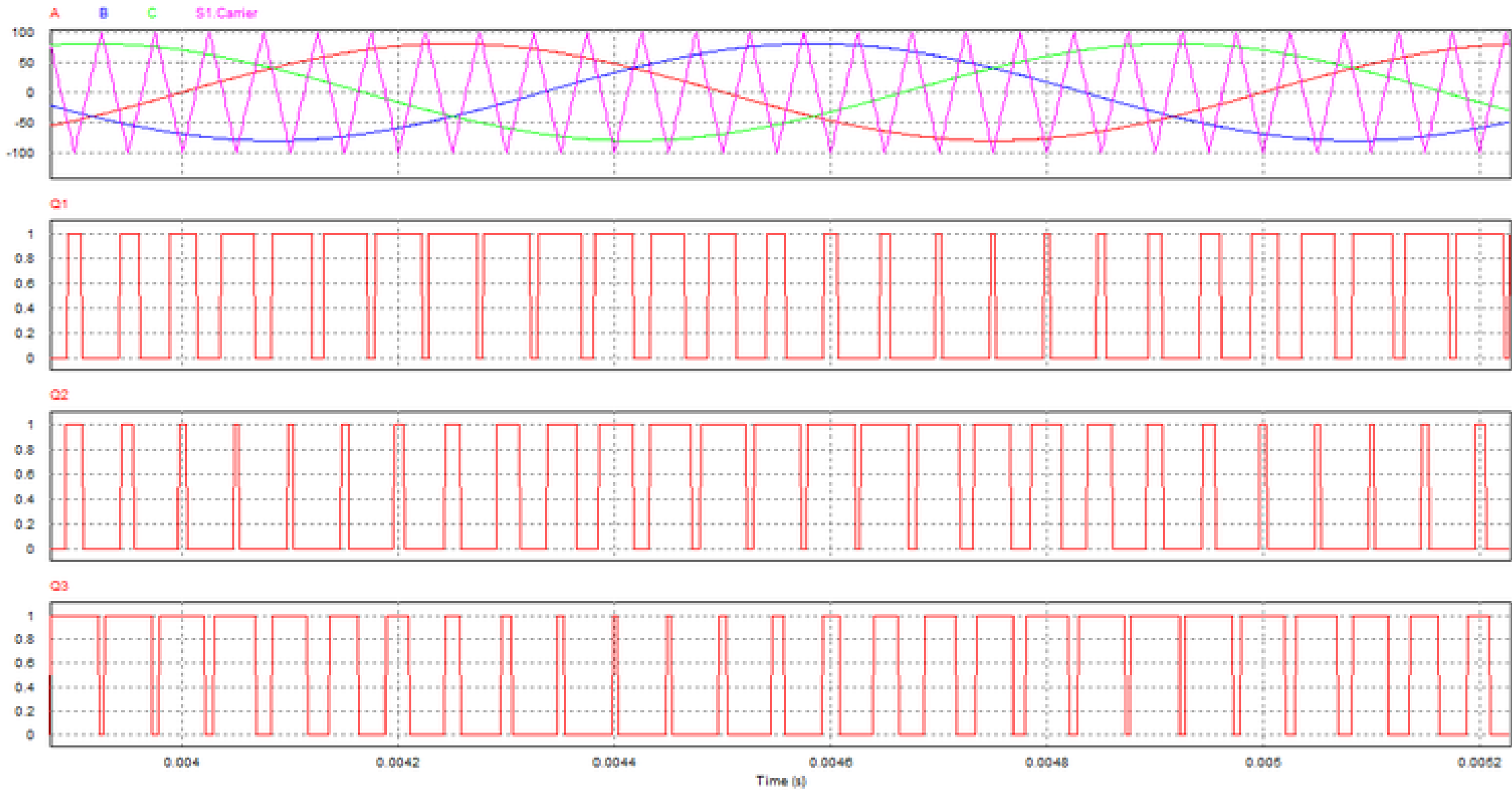
Simulate > Simulation Control



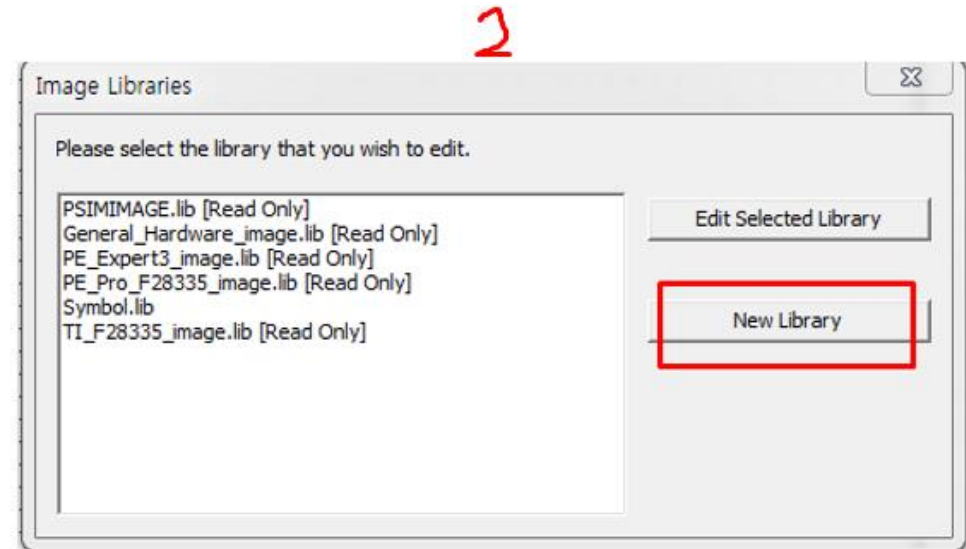
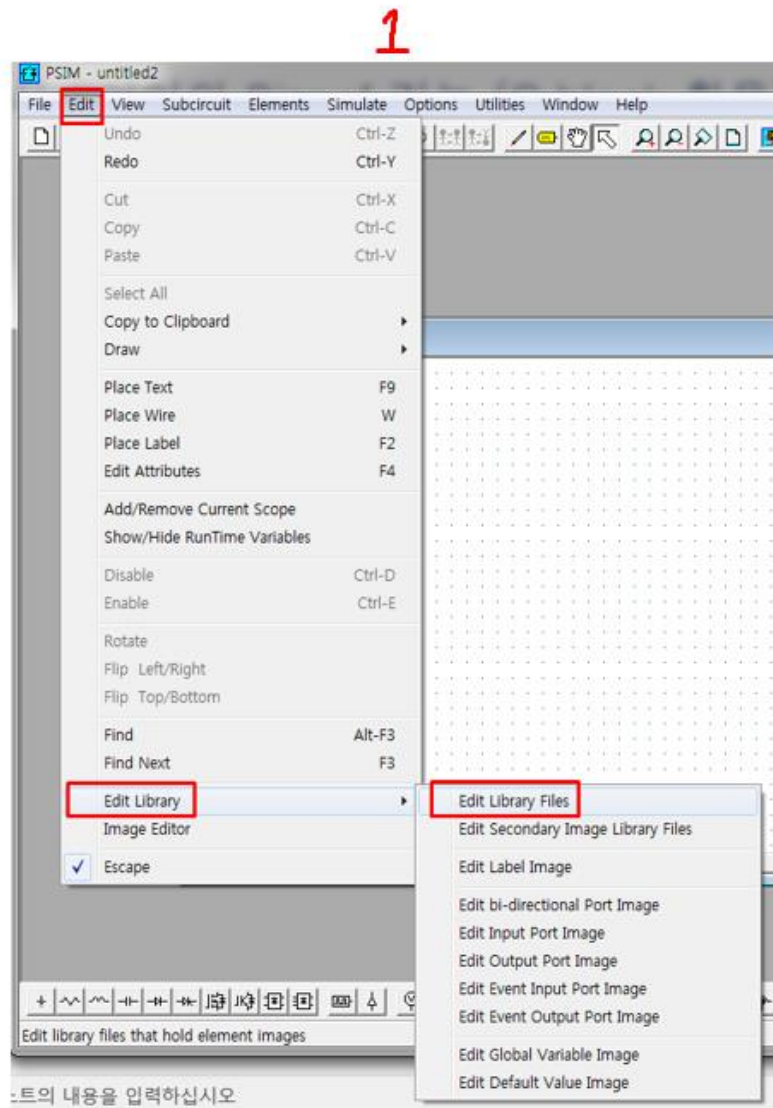
Elements > Sources > Voltage > Sine



7) Subcircuit 만들기 8



8) Personal Library 만들기 1



8) Personal Library 만들기 2

