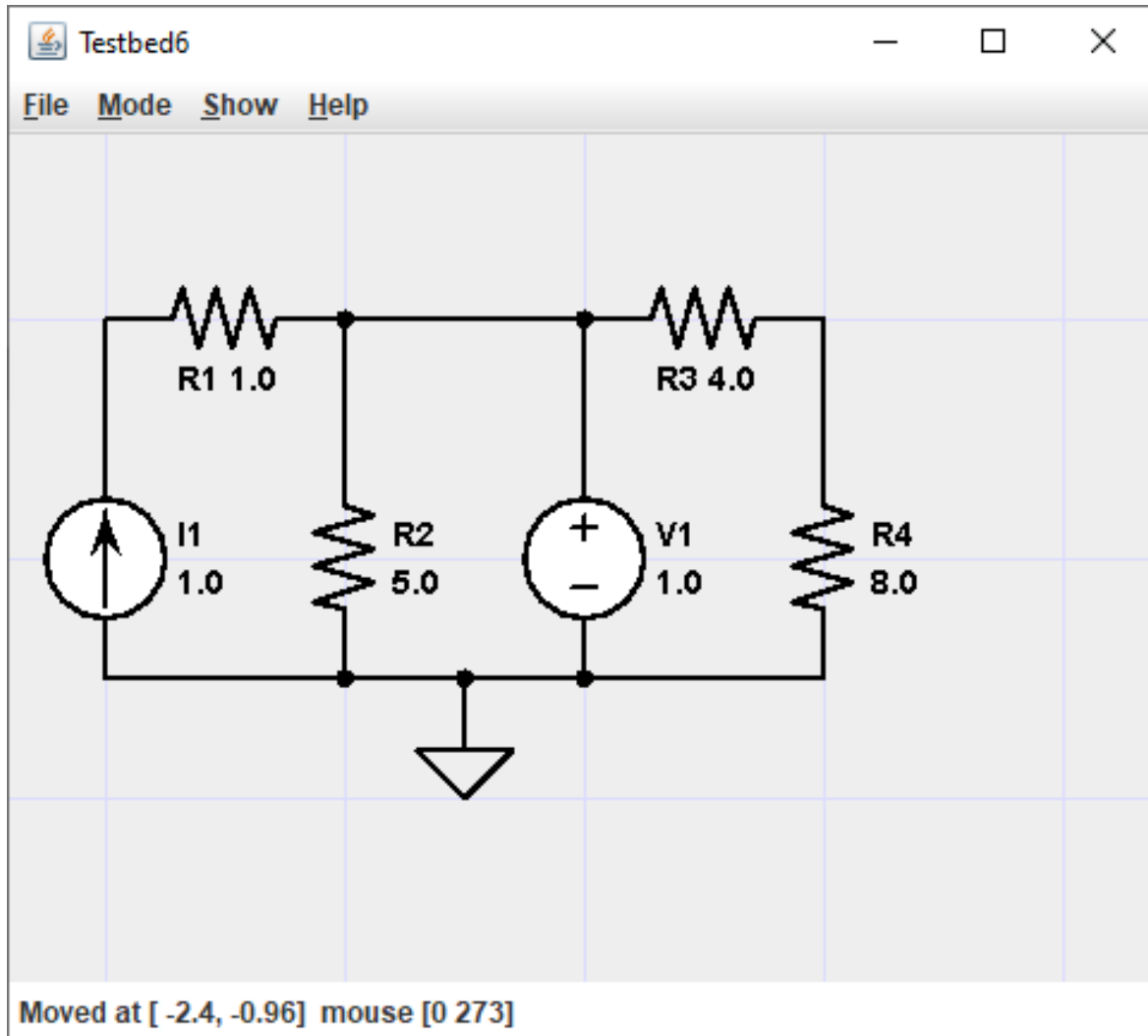


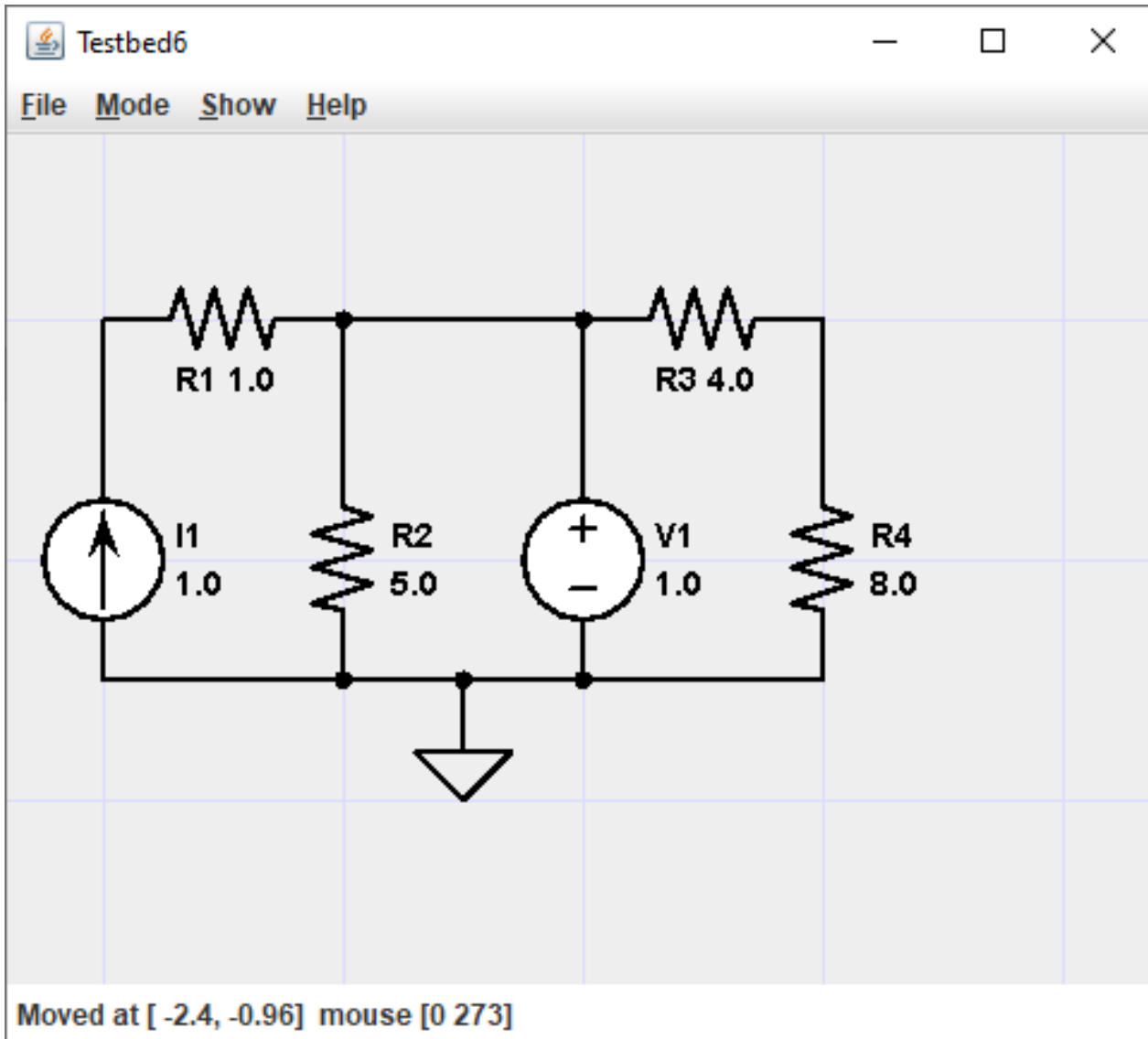
# Testbed6



Testbed6 combines six separate programs.

1. Draw devices (e.g. TestDrag)
2. Draw wires
3. Explore nodes (connected wires)
4. Show netlist
5. Show circuit solution
6. Show help page (html doc)

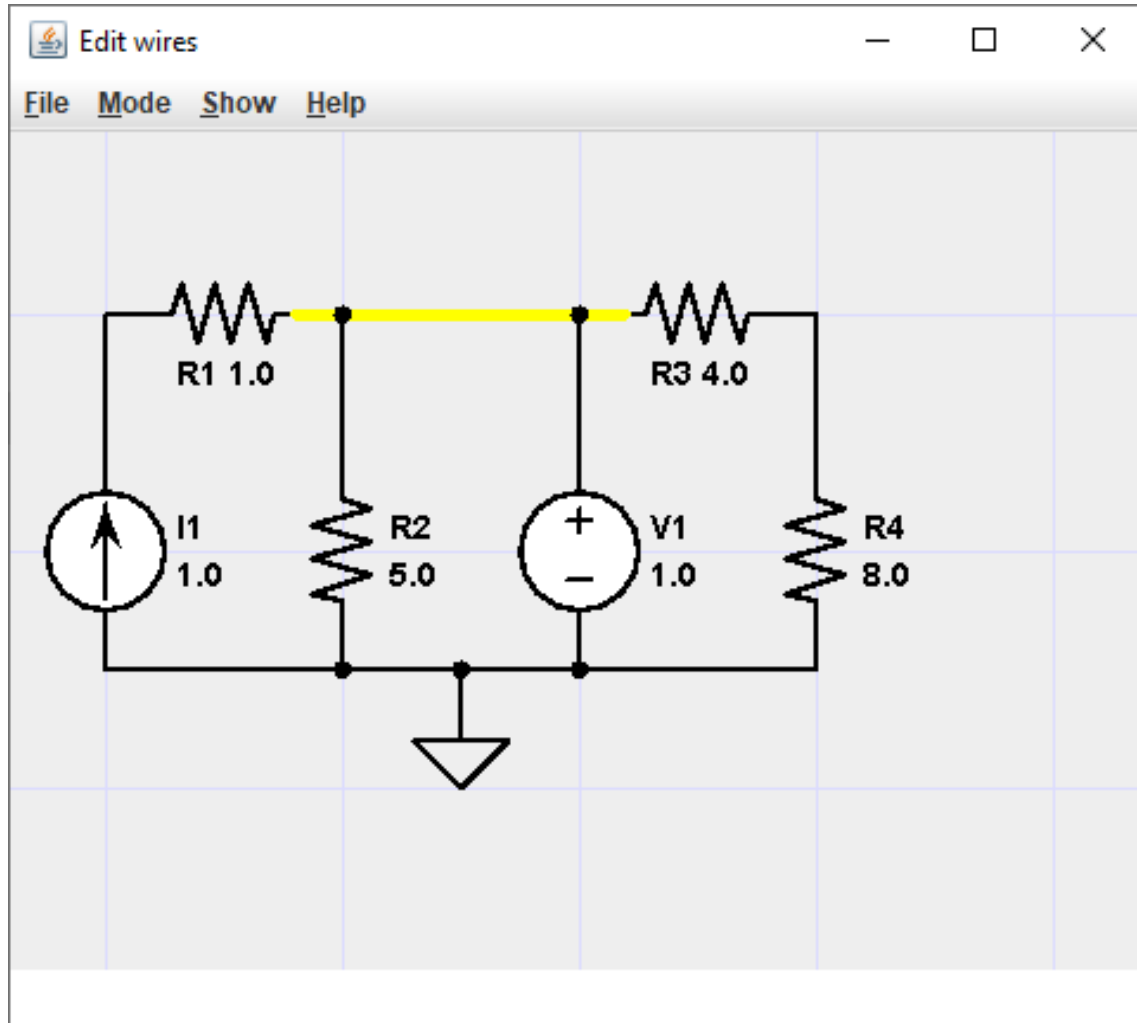
# Devices



Four devices are provided

1. Resistors
2. Voltage Sources
3. Current Sources
4. Ground

# Wires



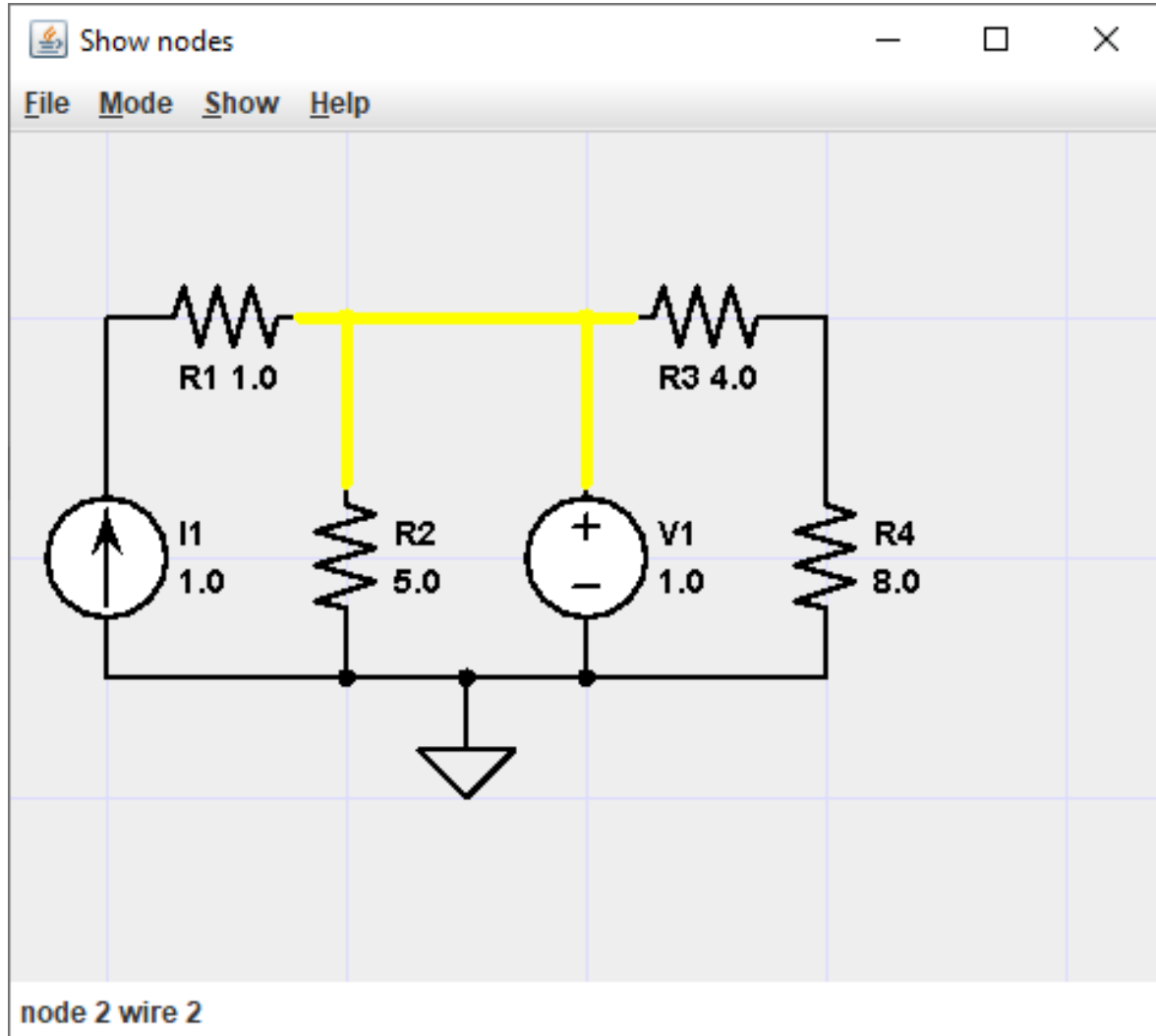
The wire shown is wire 2

Wires connect devices (and other wires)

1. W -2 0.3 -2 1 -1.8 1
2. **W -1.2 1.0 0.2 1.0**
3. W -1.0 0.3 -1.0 1.0 \*
4. W 0.8 1 1 1 1 0.3
5. W -2 -0.3 -2 -0.5 1 -0.5 1 -0.3
6. W -1 -0.3 -1 -0.5 \*
7. W 0 -0.3 0 -0.5 \*
8. W 0 0.3 0 1 \*
9. W -0.5 -0.7 -0.5 -0.5 \*

There are nine wires present, those marked by an asterisk denote connections to other wires.

# Nodes

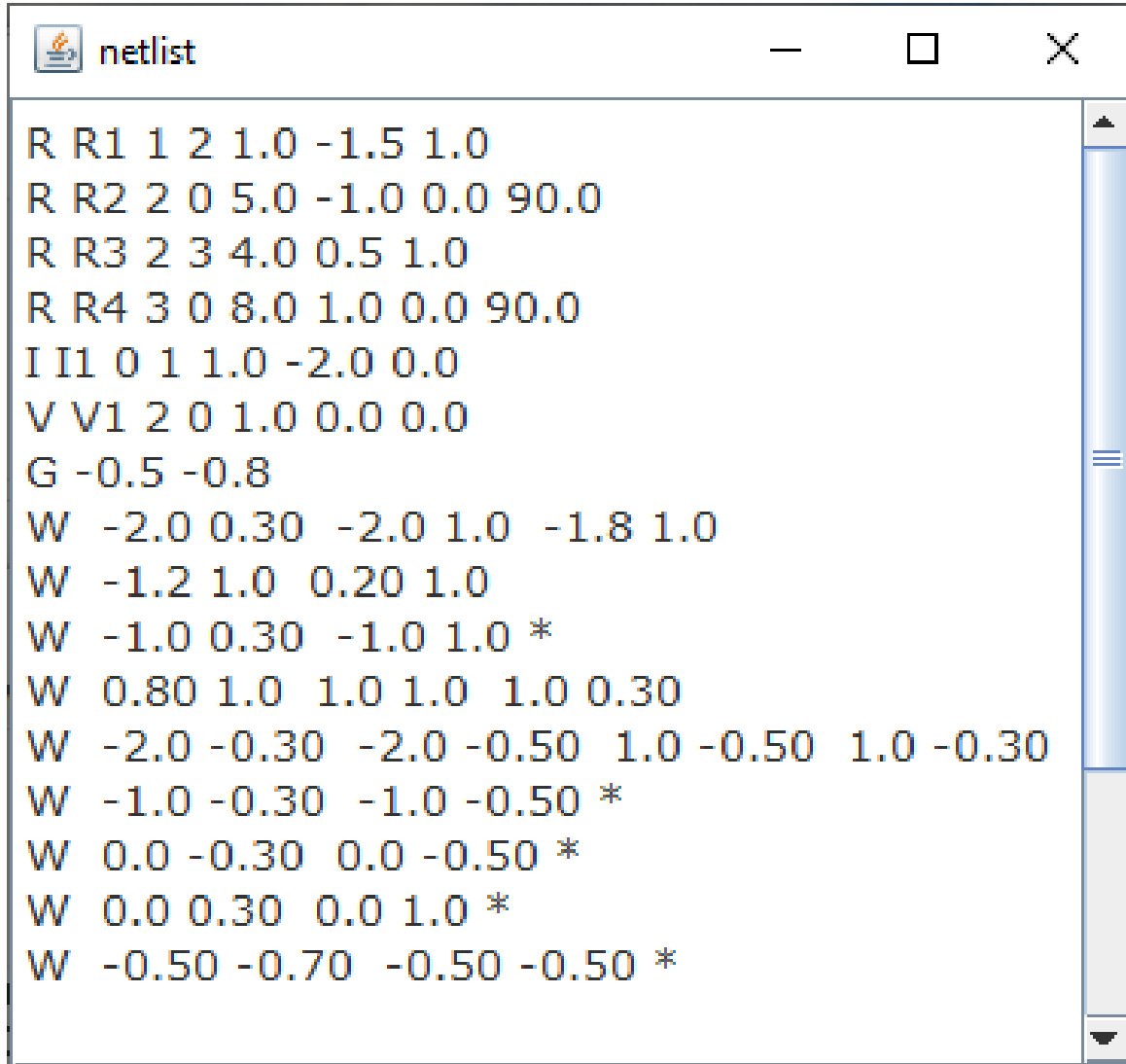


Node 2 shown here is defined by wire 2, which connects R1 and R3  
wire 3 (connecting R2 to wire 2) and  
wire 8 (connecting V1 and wire 2).

*Stubs* are wires that connect a device to a wire. They are denoted by asterisks in the netlist.

Wires connected to ground are assigned a node value of zero.

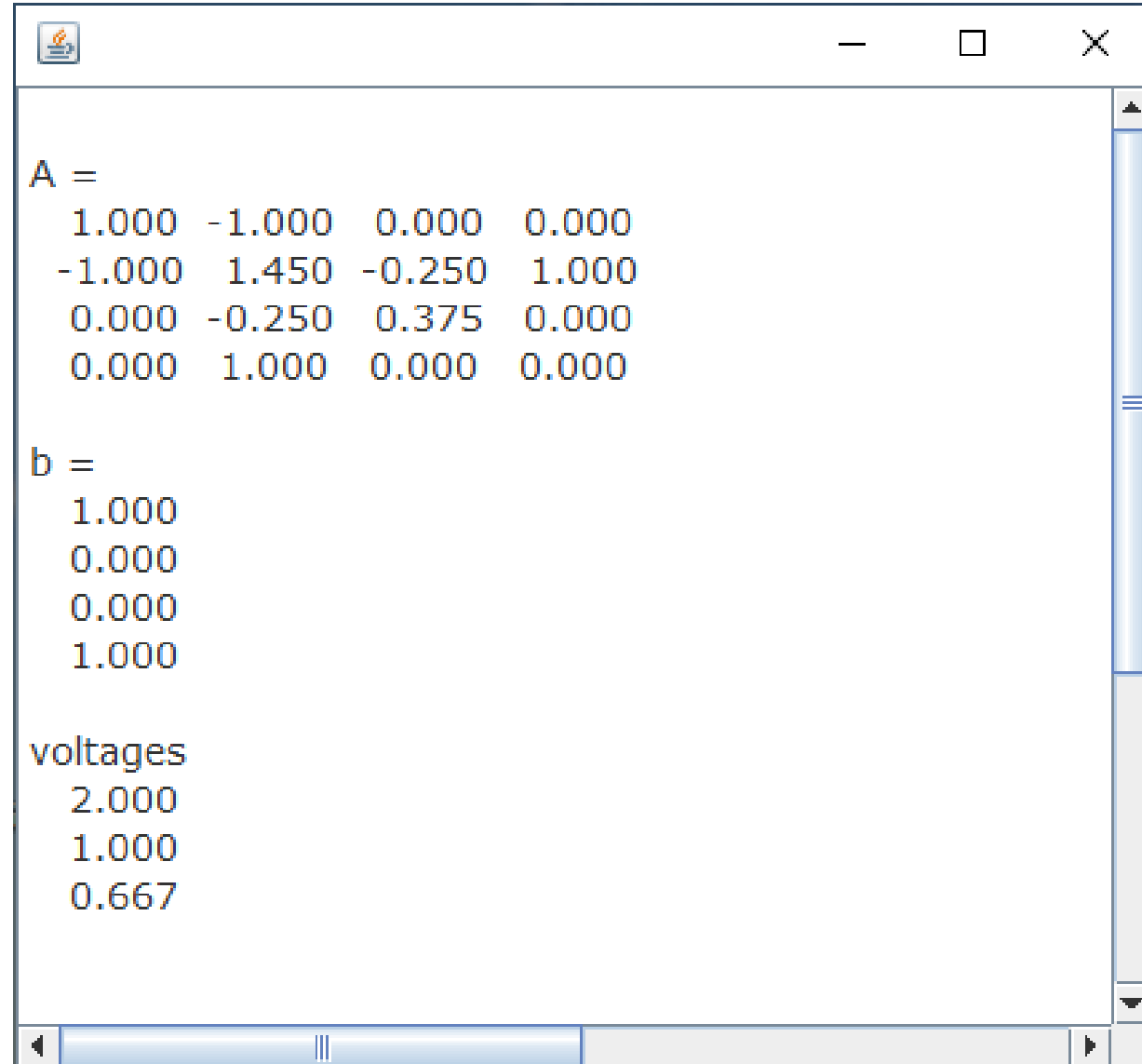
# Netlists



```
R R1 1 2 1.0 -1.5 1.0
R R2 2 0 5.0 -1.0 0.0 90.0
R R3 2 3 4.0 0.5 1.0
R R4 3 0 8.0 1.0 0.0 90.0
I I1 0 1 1.0 -2.0 0.0
V V1 2 0 1.0 0.0 0.0
G -0.5 -0.8
W -2.0 0.30 -2.0 1.0 -1.8 1.0
W -1.2 1.0 0.20 1.0
W -1.0 0.30 -1.0 1.0 *
W 0.80 1.0 1.0 1.0 1.0 0.30
W -2.0 -0.30 -2.0 -0.50 1.0 -0.50 1.0 -0.30
W -1.0 -0.30 -1.0 -0.50 *
W 0.0 -0.30 0.0 -0.50 *
W 0.0 0.30 0.0 1.0 *
W -0.50 -0.70 -0.50 -0.50 *
```

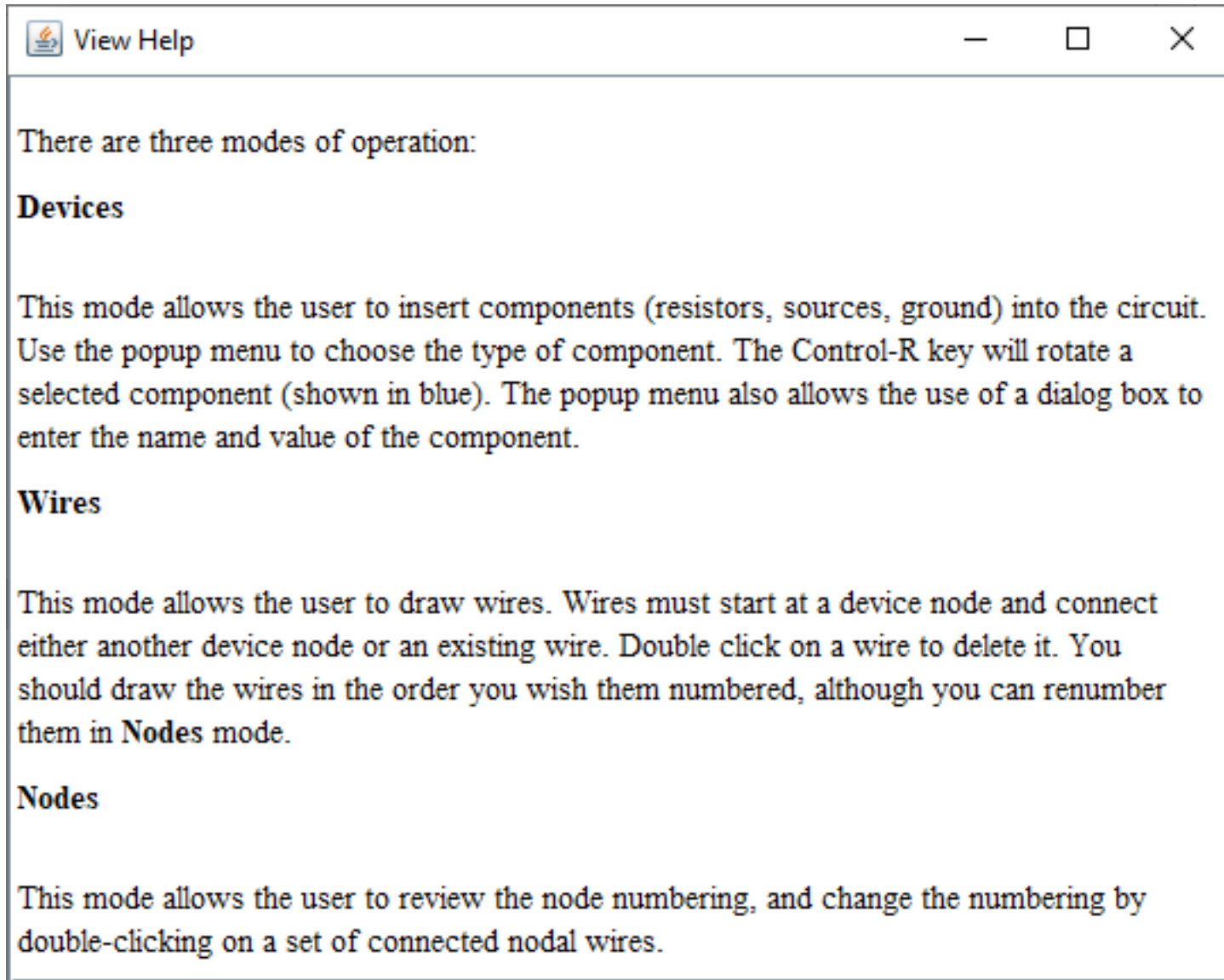
Netlists show devices and wires. The device list shows node assignments, which makes it possible to solve the circuit without necessarily drawing the wires.

# Circuit Solution



```
A =  
  1.000 -1.000  0.000  0.000  
 -1.000  1.450 -0.250  1.000  
  0.000 -0.250  0.375  0.000  
  0.000  1.000  0.000  0.000  
  
b =  
  1.000  
  0.000  
  0.000  
  1.000  
  
voltages  
  2.000  
  1.000  
  0.667
```

# View Help



The help page is an html document displayed by `ViewApp.java`