Circuits project

Submitted by:

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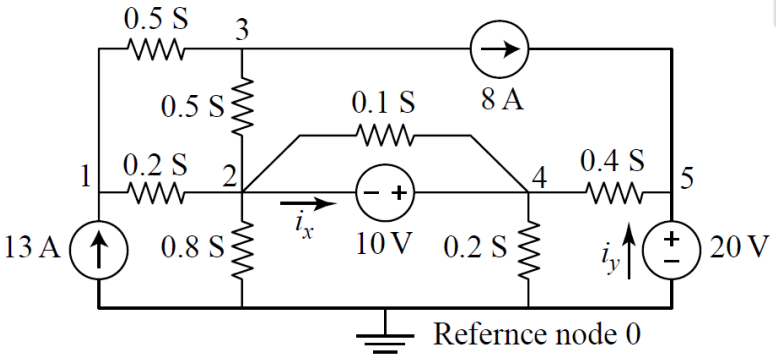
Inputs:

1. Angular frequency (ω) should be entered at the beginning of the file or zero in case of DC circuits.
2. Voltage and current sources should be entered from positive to negative, In case of DC circuits, the angle should be entered zero.
3. The executable file will work only if windows has Redistributable library to include the DLL files.
4. Write ".txt" at the end of file name e.g.:" test1.txt".
5. This tool is valid for any combination of resistors, inductors and capacitors with any number of loops or nodes.
   N.B. there is no suitable validation for incorrect input as negative resistance.

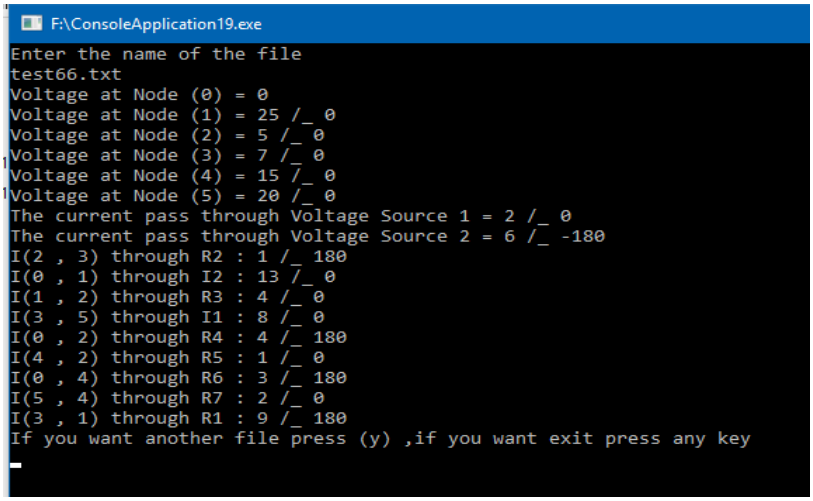
Test cases:

Netlist:

```
0
I2      1       0       13      0
R1      1       3       2
R2      3       2       2
V1      4       2       10      0
R3      2       1       5
I1      5       3       8       0
R4      2       0       1.25
R5      2       4       10
R6      4       0       5
R7      4       5       2.5
V2      5       0       20      0
```

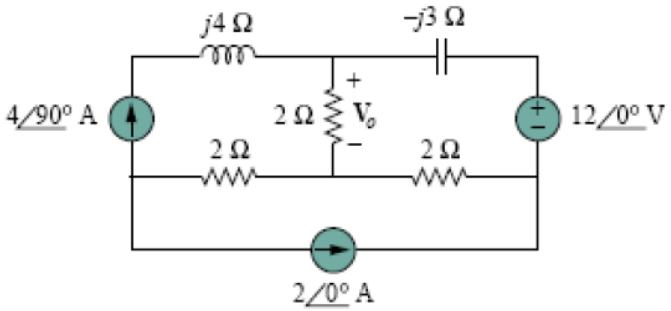


Output:

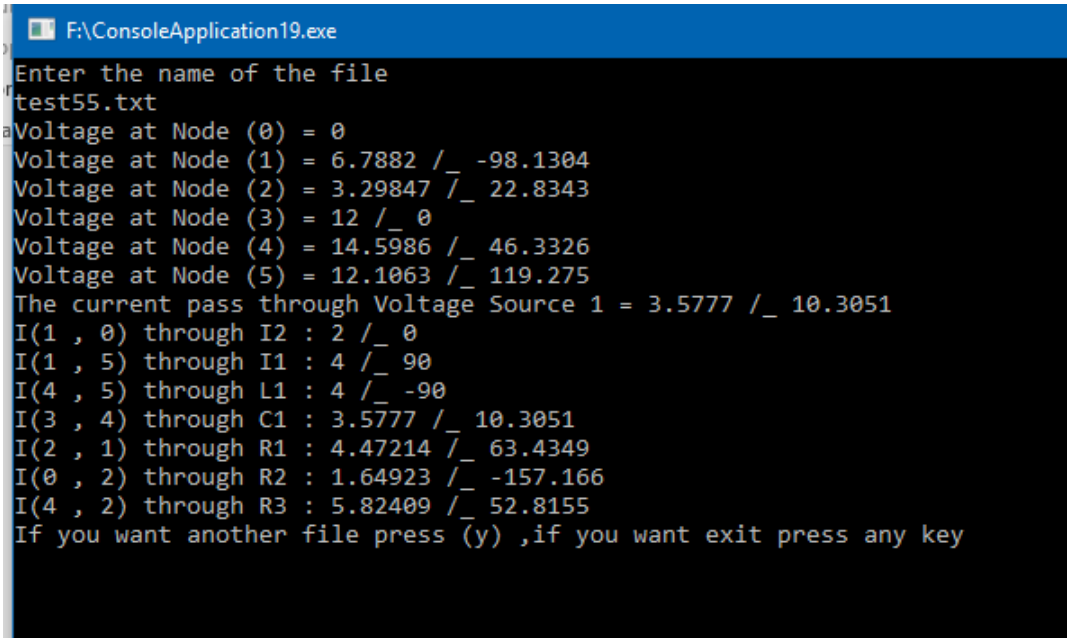


Netlist:

```
100
I1      5       1       4       90
I2      0       1       2       0
V1      3       0       12      0
L1      5       4       0.04
C1      4       3       0.00033333
R1      1       2       2
R2      2       0       2
R3      2       4       2
```

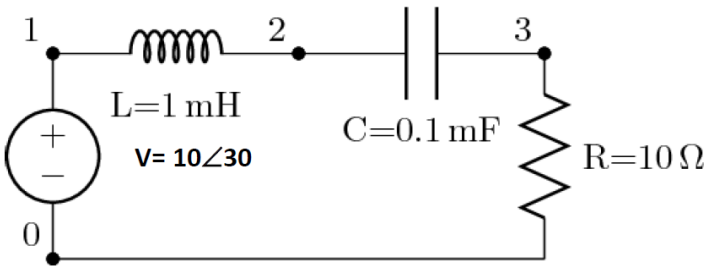


Output:



Netlist:

```
100
Vs    1    0    10    30
L1    1    2    0.001
C2    2    3    0.0001
R3    3    0    10
```



Output: