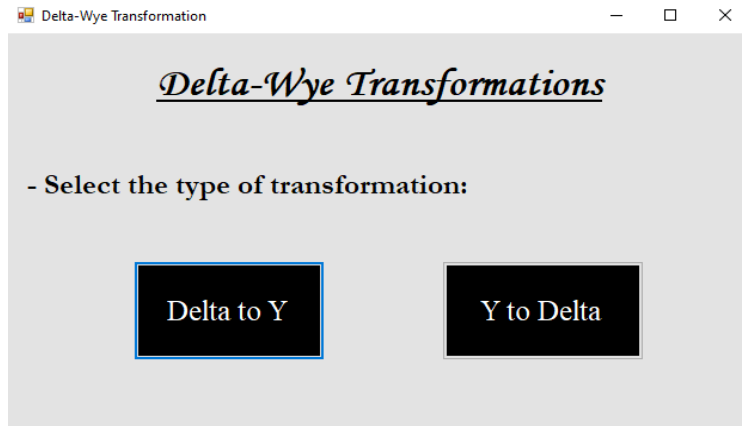


This program gets the 3 resistances of a Delta-Wye or Wye-Delta transformation by inputting the initial branch resistances and applying the rules. If Windows recognizes the program as unsafe, click on **More Info** then **run anyway**. Follow these steps:

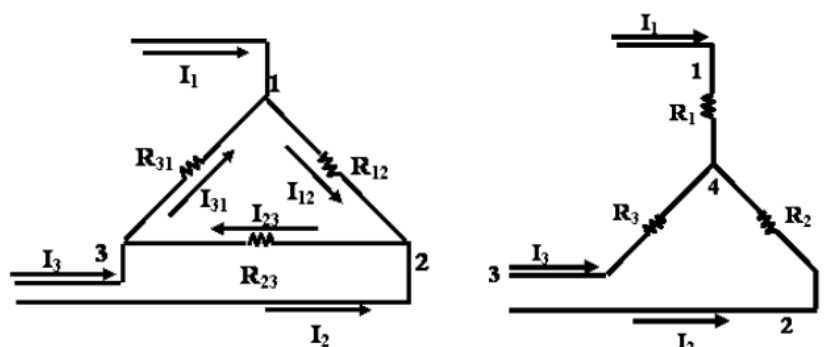
- 1) Extract Circuits.zip to a specified folder on your computer and open it then open DeltaWye.exe file. A screen identical to the one on the right will show up with 2 options to choose from:



- 2) Select either Delta to Y transformation or Y to Delta transformation by clicking on one of them. Let's say you chose Delta to Y, this is what you'll see:

- 3) Now you should input the 3 values of the Delta branch resistances in the first 3 boxes shown on the left. Make sure not to leave one of them empty or else an error occurs since we must have all 3 resistances to satisfy the rule. Enter the 3 resistances (in ohms) according to the following connection:

Star - Delta Transformation



Delta (Pi or π)

Star (Y or T)

- 4) Once you press **Calculate**, the program will get the Y branch resistors using the formula and display it on the last 3 boxes (R1, R2, R3) on the right. Example:

Delta to Y Transformation

Delta branch resistors:

R12 10 Ohms

R23 6 Ohms

R31 4 Ohms

Calculate

Y branch resistors:

R1 2 Ohms

R2 3 Ohms

R3 1.2 Ohms

- 5) Now, you can close the Delta to Y screen and go back to the main page to undergo more transformations as long as you like whether it is delta to Y or Y to Delta.

Y to Delta Transformation

Y branch resistors:

R1 6 Ohms

R2 9 Ohms

R3 12 Ohms

Calculate

Delta branch resistors:

R12 19.5 Ohms

R23 39 Ohms

R31 26 Ohms

- 6) Finally, close the program when you're done.

Note: In case the .exe file doesn't run or open for any particular reason, a recording of the above procedure called Recording.mp4 is found in the Circuits.zip file to illustrate how the GUI program works.