

## Users 'guide for this software

The software is designed to calculate the U value.

The software uses python as its editing environment and working environment. Therefore, before using the software, it is recommended to install python packages on your own devices. The packages of Anaconda python and the Jupyter Notebook is suggested.

It has a window with two inputs, one is the k value and one is the l value. And it has one output position. You need to input the real k value and l value of your material or even the element of your building. The unit of the k value and the l value are  $W/mK$  and  $m$  respectively. And the result of the calculated U value will show up at the position of the output area, the unit of the output of the U value is  $W/m^2K$

After opening the software, the window shows three blanks. Two are on the left and one is on the right. The blanks on the left-hand side are the input areas while the blank on the right hand side is the result showing area. The upper one on the left is required to input the k value and the below one is used to input the l value. There are two buttons below, one is "confirmed" and the other one is "cancelled". After typing the values of k and l, then you need to click "confirmed" and the result will show up automatically on the right. If you need to change your value, please click "cancelled" and return to the initial window and retype your values of k and l again.

Please **pay much attention to the units** of the values that you input for k and l value. The initial units of the software system are  $W/mK$  and  $m$  respectively.