

User's Guide:

Remind: Before start this software, please install the python package: tkinter, os, json, datetime

Please run the MainPage.py to start.

Please select function in menubar.

1.--Single--for monolayer material U-value calculation.

You need entry the material name, thickness and k-value and push the button -confirm- to get the U-value

You can push the button -save- to save the information and you can check them in --History--  
-histoyS- in treeview

The screenshot shows a window titled "Simple U-value calculator v1.0". The window has a menu bar with "Single", "Multiple", "History", "Guide", and "About". Below the menu bar, there is a text area containing instructions: "--History-- for Calculate monolayer or single material U-value", "historyS- for single layer material element calculation check.", "historyM- for multiple layer material building element calculation check.", "you can push the button -open- to open the file to check all information", "If you finish the record and need delete them all in this file, you can push the button", "Remind: If you delete the first row in history.json, you will get error.", "--Guide-- Simple guide to help user read when they are using the software.", and "--About-- Some information about this software and product". Below the text area, there are three input fields: "Material Name :" with the value "something", "K-value(W/mK) :" with the value "0.6", and "Thickness(m) :" with the value "0.3". To the right of these fields is a "Confirm" button. Below the "Confirm" button, there is a label "U-value(m^2\*K/W) :" and a value "2.0". Below this, there is a "Save" button. At the bottom of the window, there is a status bar that says "Save successfully" and a file path "C:\Users\86188\Desktop\cw4\MainPage.py".

Simple U-value calculator v1.0

Single Multiple History Guide About

--History-- for Calculate monolayer or single material U-value  
historyS- for single layer material element calculation check.  
historyM- for multiple layer material building element calculation check.  
you can push the button -open- to open the file to check all information  
If you finish the record and need delete them all in this file, you can push the button  
Remind: If you delete the first row in history.json, you will get error.  
--Guide-- Simple guide to help user read when they are using the software.  
--About-- Some information about this software and product

Material Name : something

K-value(W/mK) : 0.6

Thickness(m) : 0.3

Confirm

U-value(m<sup>2</sup>\*K/W) : 2.0

Save

Save successfully

C:\Users\86188\Desktop\cw4\MainPage.py

Simple U-value calculator v1.0

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Thickness(m) :

0.6

Name	K-value(W/mK)	Thickness(m)	U-value(m <sup>2</sup> K/W)
None	0.0	0.0	0.0
something	0.6	0.3	2.0

U-value(m<sup>2</sup>K/W) :

2.0

Confirm

Save

Save successfully

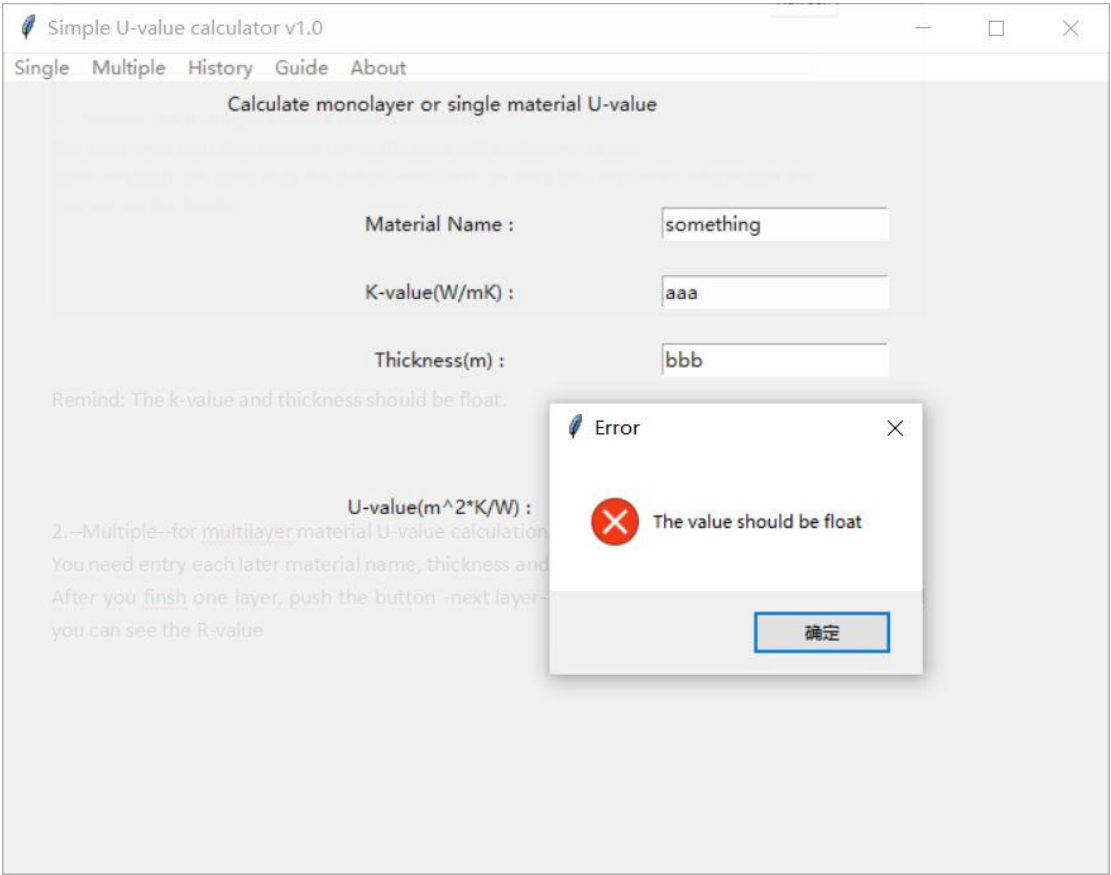
Refresh

2.--Multiple--for multilayer material U-value calculation.

You need entry each later material name, thickness and k-value one by one.

After you finsh one layer, push the button -next layer- to entry the next layer's information and you can see the R-value

Remind: The k-value and thickness should be float.



2.--Multiple--for multilayer material U-value calculation.

You need entry each later material name, thickness and k-value one by one.

After you finish one layer, push the button -next layer- to entry the next layer's information and you can see the R-value

Simple U-value calculator v1.0 e.pack()

Single Multiple History Guide About

Calculate multilayer material U-value

```
if __name__ == '__main__':  
    root = tk.Tk()  
    MainPage(root)  
    root.mainloop()
```

Element name : aaa

K-value(W/mK) : 0.1

Thickness(m) : 0.1

Next layer

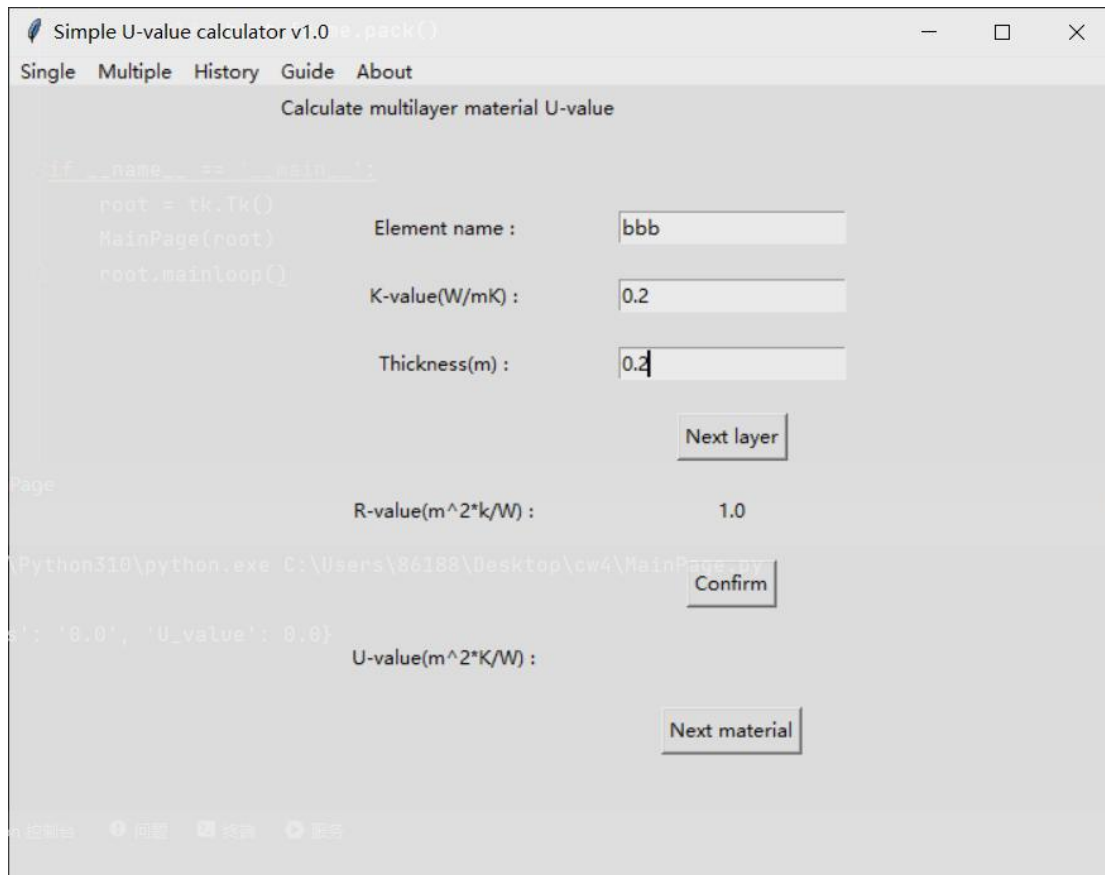
R-value(m<sup>2</sup>\*k/W) : 1.0

Confirm

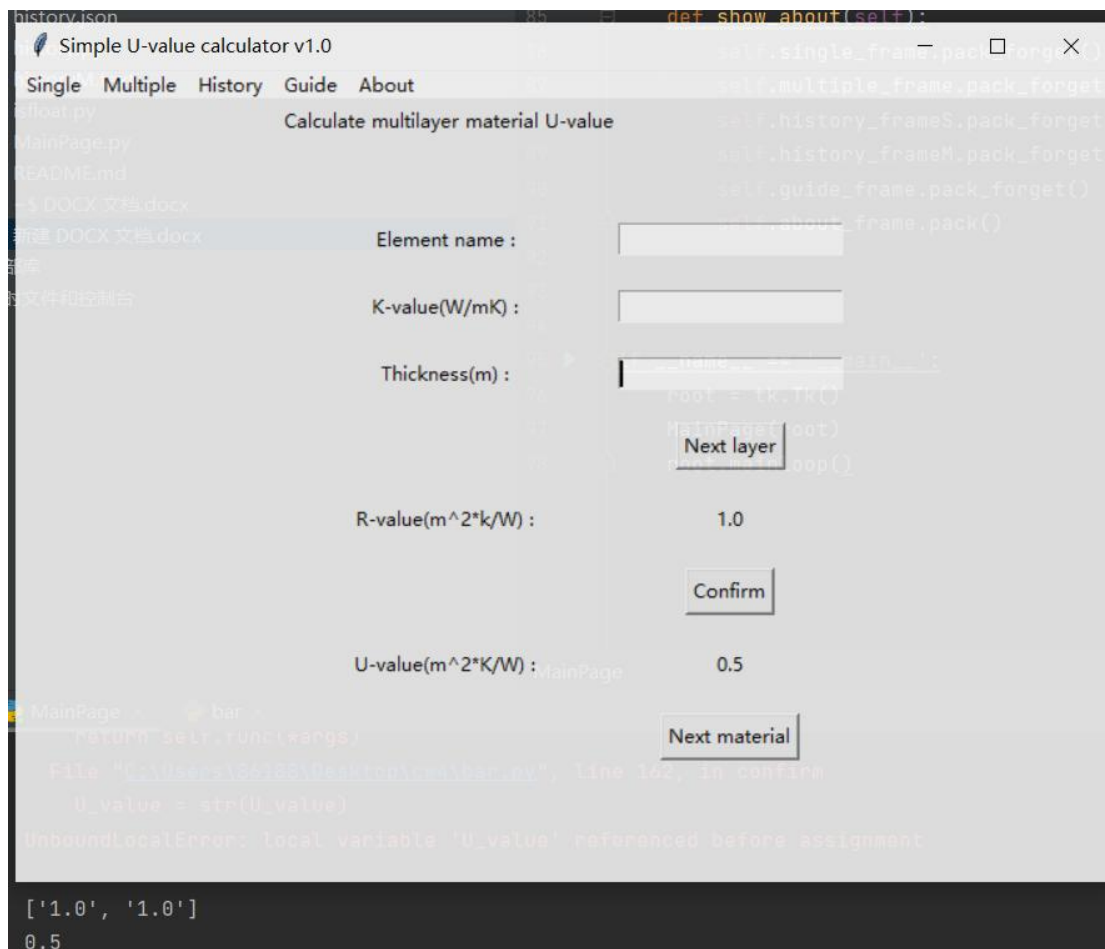
U-value(m<sup>2</sup>\*K/W) :

Next material

NameError: name 'k' is referenced before assignment



The material name, thickness, K-value and R-value will be saved in data.text to let user check. You can find them in --History-- -historyM- after you finish the calculation. After you finish entry all layer, push the button -confirm- to get the final U-value.



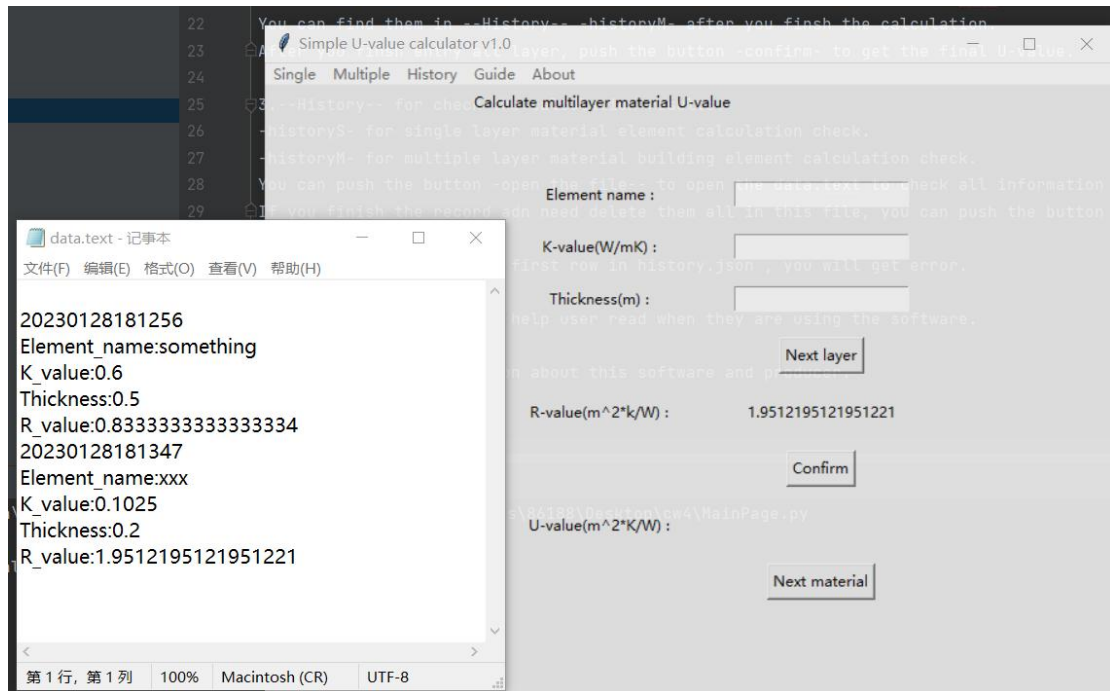
You can start calculate next material after push the button -Next material- and start entry the information.

3.--History-- for check the calculation results.

-historyS- for single layer material element calculation check.

-historyM- for multiple layer material building element calculation check.

You can push the button -open the file-- to open the data.text to check all information and the time when you entry.



If you finish the record and need delete them all in this file, you can push the button -delete- .

Remind: If you delete the first row in history.json , you will get error.

4--Guide-- Simple guid to help user read when they are using the software.

5--About-- Some information about this software and producer.