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Programowanie GUI z Tkinter

Jak zacząć ?

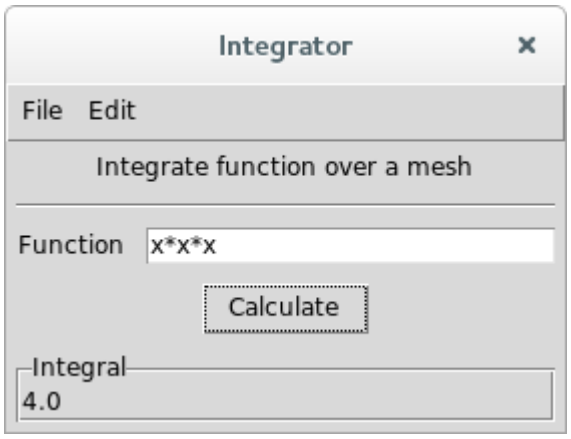
Podstawą (oprócz czytania dokumentacji) są przykłady. Dobry zbiór takich przykładów można znaleźć na stronie: https://github.com/Programmica/python-tkinter-examples

Dobre wprowadzenie do Tkinter można znaleźć tutaj: http://thinkingtkinter.sourceforge.net/

Widgety Tkinter

Przykłady użycia widgetów Tkinter

Przykład



Kod źródłowy: integral_with_gui.tar.gz

Główny program z definicją interfejsu graficznego:

<sxh python> “”“ GUI for program calculating integrals over a mesh. ”“”

import tkinter from tkinter import ttk

import itertools import argparse import quadratures

from mesh import Mesh from integrands import Integrand from integrators import MeshIntegrator

class Integrator(ttk.Frame):

```
    """The adders gui and functions."""
    def __init__(self, parent, *args, **kwargs):
```

```
        ttk.Frame.__init__(self, parent, *args, **kwargs)
        self.root = parent
        self.init_gui()
```

```
    def on_quit(self):
        """Exits program."""
        quit()
```

```
    def calculate(self):
        """Calculates the sum of the two inputted numbers."""
        expression = self.expressin_entry.get()
```

```
        meshfile = 'mesh.dat'
        nnodes = 2
```

```
        mesh = Mesh()
        mesh.load(meshfile)
        integrand = Integrand(expression)
        quadrature = quadratures.make_quadrature("GaussLegendre", nnodes)
        integrator = MeshIntegrator()
        integral = integrator.integrate(mesh, integrand, quadrature)
```

```
        self.answer_label['text'] = integral
```

def init_gui(self):

```
        """Builds GUI."""
        self.root.title('Integrator')
        self.root.option_add('*tearOff', 'FALSE')
```

```
        self.grid(column=0, row=0, sticky='nsew')
```

```
        self.menubar = tkinter.Menu(self.root)
```

```
        self.menu_file = tkinter.Menu(self.menubar)
        self.menu_file.add_command(label='Exit', command=self.on_quit)
```

```
        self.menu_edit = tkinter.Menu(self.menubar)
```

```
        self.menubar.add_cascade(menu=self.menu_file, label='File')
        self.menubar.add_cascade(menu=self.menu_edit, label='Edit')
```

```
        self.root.config(menu=self.menubar)
```

```
        self.expressin_entry = ttk.Entry(self, width=25)
        self.expressin_entry.grid(column=1, row = 2)
```

```
        self.calc_button = ttk.Button(self, text='Calculate',
```

```
                command=self.calculate)
        self.calc_button.grid(column=0, row=3, columnspan=4)
```

```
        self.answer_frame = ttk.LabelFrame(self, text='Integral',
                height=100)
        self.answer_frame.grid(column=0, row=4, columnspan=4, sticky='nesw')
```

```
        self.answer_label = ttk.Label(self.answer_frame, text='')
        self.answer_label.grid(column=0, row=0)
```

```
        # Labels that remain constant throughout execution.
        ttk.Label(self, text='Integrate function over a mesh').grid(column=0,
row=0,
                columnspan=4)
        ttk.Label(self, text='Function').grid(column=0, row=2,
                sticky='w')
```

```
        ttk.Separator(self, orient='horizontal').grid(column=0,
                row=1, columnspan=4, sticky='ew')
```

```
        for child in self.winfo_children():
            child.grid_configure(padx=5, pady=5)
```

if name == 'main':

```
  root = tkinter.Tk()
  Integrator(root)
  root.mainloop()
```

</sxh>