tkinter_form

tk_form is a simple module that helps you to create forms in tkinter easily and quickly from a base dictionary, saving certain repetitive tasks in the creation of a form and adding the verification of integer and float variables. In simple words it is similar to having a tkinter variable. Its value is a dictionary.

Install

```
pip install tkinter_form
```

Tutorial

Fast Example

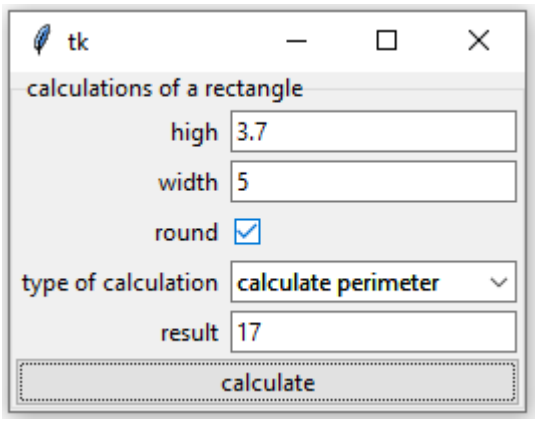
```
import tkinter as tk
from tkinter_form import Form

class App(tk.Tk):
```

```
    def __init__(self) -> None:
        super().__init__()
        estruct = {
            "high": 1.0,
            "width": 1.0,
            "round": False,
            "type of calculation": ["calculate area", "calculate perimeter"],
            "result": "",
        }
        self.form = Form(
            self,
            name_form="calculations of a rectangle",
            form_dict=estruct,
            name_config="calculate",
            button=True
        )
        self.form.pack()
        self.button = self.form.button

        self.button.config(command=self.calculate)
        self.mainloop()
    def calculate(self):
        """
        Calculate values rectangle
        """
        dict_vals = self.form.get()
        if dict_vals["type of calculation"] == "calculate area":
            value = dict_vals["high"] * dict_vals["width"]
        elif dict_vals["type of calculation"] == "calculate perimeter":
            value = 2 * dict_vals["high"] + 2 * dict_vals["width"]
        else:
            value = 0
        if dict_vals["round"]:
            value = round(value)
        result = {"result": str(value)}
        self.form.set(result)
if __name__ == "__main__":
    App()
```

With these lines we create the interface that performs the calculations of area and perimeter of a rectangle. This frees us the declaration of the labels and other objects returning a ttk.LabelFrame with the additional methods set(), get() and the attributes widgets and button.



API Reference

tkinter_form.Form

```
tkinter_form.Form(self,master: object, name_form: str, form_dict: dict,
name_config: str = "configure", button: bool = True)
```

Form object is a `ttk.LabelFrame`. With additional attributes: `self.widgets`, `self.button`, `self.get()`, `self.set()` .

Parameters:

```
master : tk.Tk or object tk.parent
    tkinter container or parent object


name_form : str
    string with edit `ttk.LabelFrame['text']`


form_dict : dict[str:float|int|str|bool|list]
    base structure of the form that contains the initial values of the form.
[dictionary guide](#tkinter_formform)


name_config: str
    name of the form button in case the argument `button` is `True`


button : bool
    Create a button on the form by default `True`. said button is the attribute
`self.button`
```

Attributes:

```
[`button`](#tkinter_formformbutton) : ttk.Button | None
    if the button is create in the form.


[`widgets`](#tkinter_formformwidgets) : dict[str:
[ttk.Label,ttk.Entry|ttk.CheckButton|ttk.ComboBox] | tkinter_form.Form]
dictionary that contains the widgets of the form with the same structure of the
dictionary that was built. returning a list with two objects a tk.Label and a tk
object according to the data type.


[ttk.LabelFrame Atributes]
(https://anzeljg.github.io/rin2/book2/2405/docs/tkinter/ttk-LabelFrame.html)
```

Methods:

```
[`get()`](#tkinter_formform): Return Dict
    Returns a dictionary with the same structure that was created which contains
the values entered in the form


[`set(set_dict)`](#tkinter_formform) : Return None
    set_dict: dict

dictionary with keys value of the base dictionary with values to set in the form


[ttk.LabelFrame Methods]
(https://anzeljg.github.io/rin2/book2/2405/docs/tkinter/ttk-LabelFrame.html)
```

tkinter_form.Form.button

```
is a ttk.buttom or None if the form button was not created
```

tkinter_form.Form.widgets

```
dictionary that contains the widgets of the form with the same structure of the
dictionary that was built. returning a list with two objects a tk.Label and a tk
object according to the data type.
```

Example

```
in[Fast Example](#fast-example) the widget attibute return:
```

```
{
    "high": [ttk.Label, ttk.Entry],
    "width": [ttk.Label, ttk.Entry],
    "round": [ttk.Label, ttk.CheckButtom],
    "type of calculation": [ttk.Label, ttk.ComboBox],
    "result": [ttk.Label, ttk.Entry],
}
```

If in Fast Example we want the ttk.Entry result to be read-only we could:

```
class App(tk.Tk):
    def __init__(self) -> None:
        :::
        entry = self.form.widgets["result"][1]
        entry.config(state='readonly')
```

If the structure of the form contains subdictionaries in said key, a Form will be assigned.

```
Estruct example:
```

```
{
    "measures":{
        "high": 1.0,
        "width": 1.0
    },
    "round": False,
    "type of calculation": ["calculate area", "calculate perimeter"],
    "result": "",
}
```

```
the`widget` attribute would be
```

```
{
    "measures":tkinter_form.Form,
    "round": [ttk.Label, ttk.CheckButtom],
    "type of calculation": [ttk.Label, ttk.ComboBox],
```

```
    "result": [ttk.Label, ttk.Entry],
}
```

tkinter_form.Form.get()

```
Arguments:


Return:
    None


Returns a dictionary with the same structure that was created which contains the
values entered in the form.
```

Example

```
in[Fast Example](#fast-example) the get() function return:
```

```
{
    "high": 3.7,
    "width": 5,
    "round": True,
    "type of calculation": "calculate perimeter",
    "result": "17",
}
```

```
if struct Form Contain Subdictionaries
```

Estruct example:

```
{
    "measures":{
        "high": 1.0,
        "width": 1.0
    },
    "round": False,
    "type of calculation": ["calculate area", "calculate perimeter"],
    "result": "",
}
```

```
the`get()` function return por example
```

```
{
    "measures":{
        "high": 3.7,
        "width": 5
    },
    "round": True,
    "type of calculation": "calculate perimeter",
    "result": "17",
}
```

tkinter_form.Form.set()

```
Arguments:
    set_dict : dict


Return:
    None


dictionary with keys value of the base dictionary with values to set in the form
```

Example

```
in[Fast Example](#fast-example) the set() function in line 39-40:
```

```
        result = {"result": str(value)}
        self.form.set(result)
```