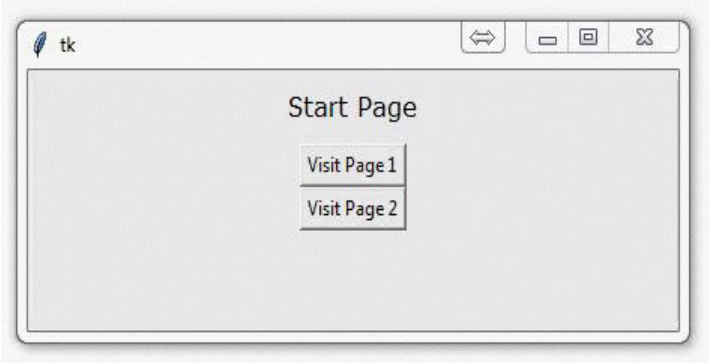
GUI programming on Python with tkinter

no-title.victordomingos.com

What is tkinter?

"Tkinter is Python's *de-facto* standard
GUI (Graphical User Interface) package.
It is a thin object-oriented layer
on top of Tcl/Tk."

Tkinter examples you may have seen...



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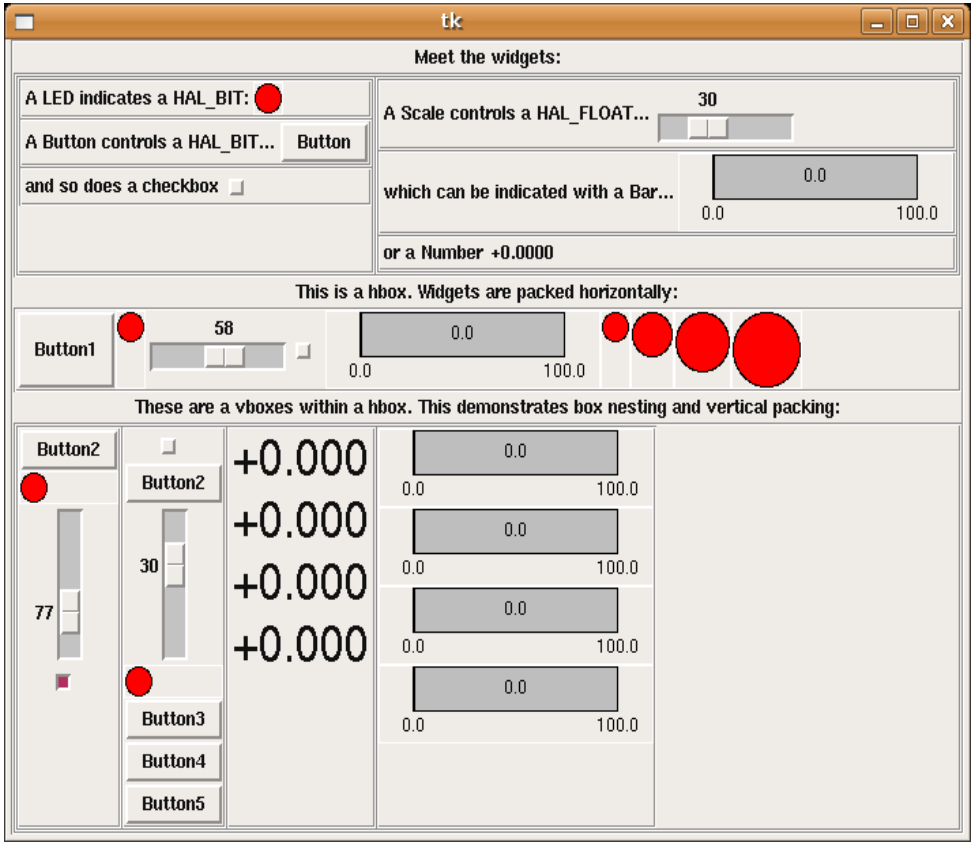
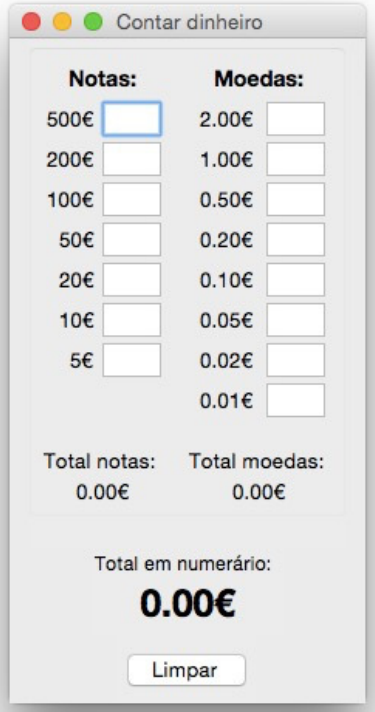
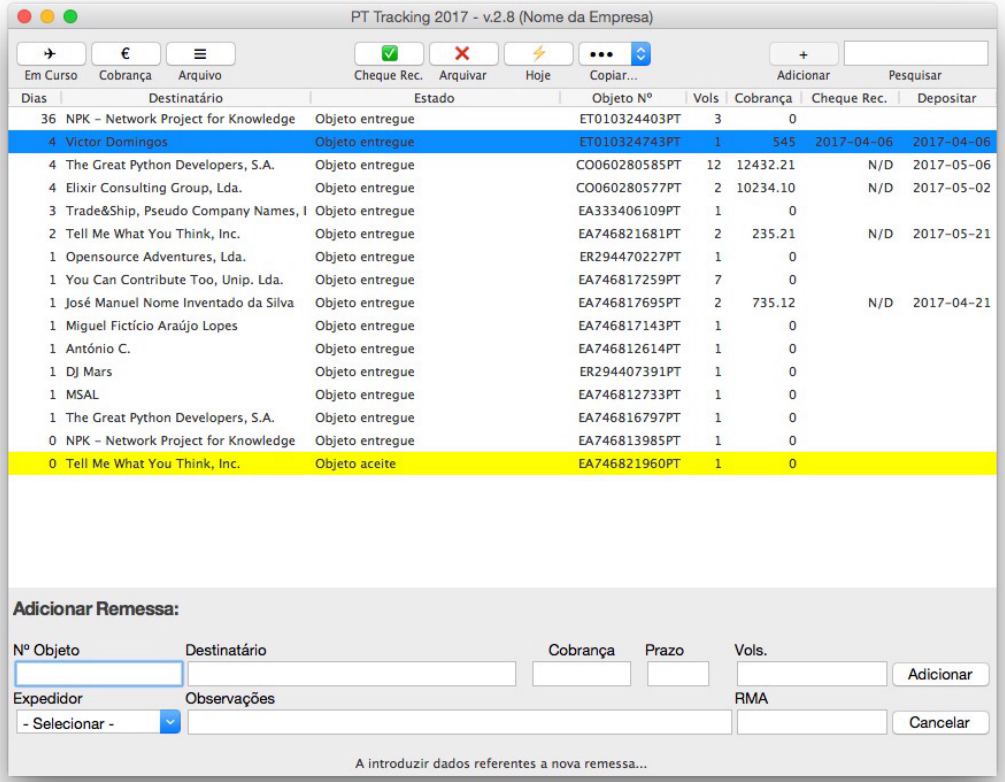


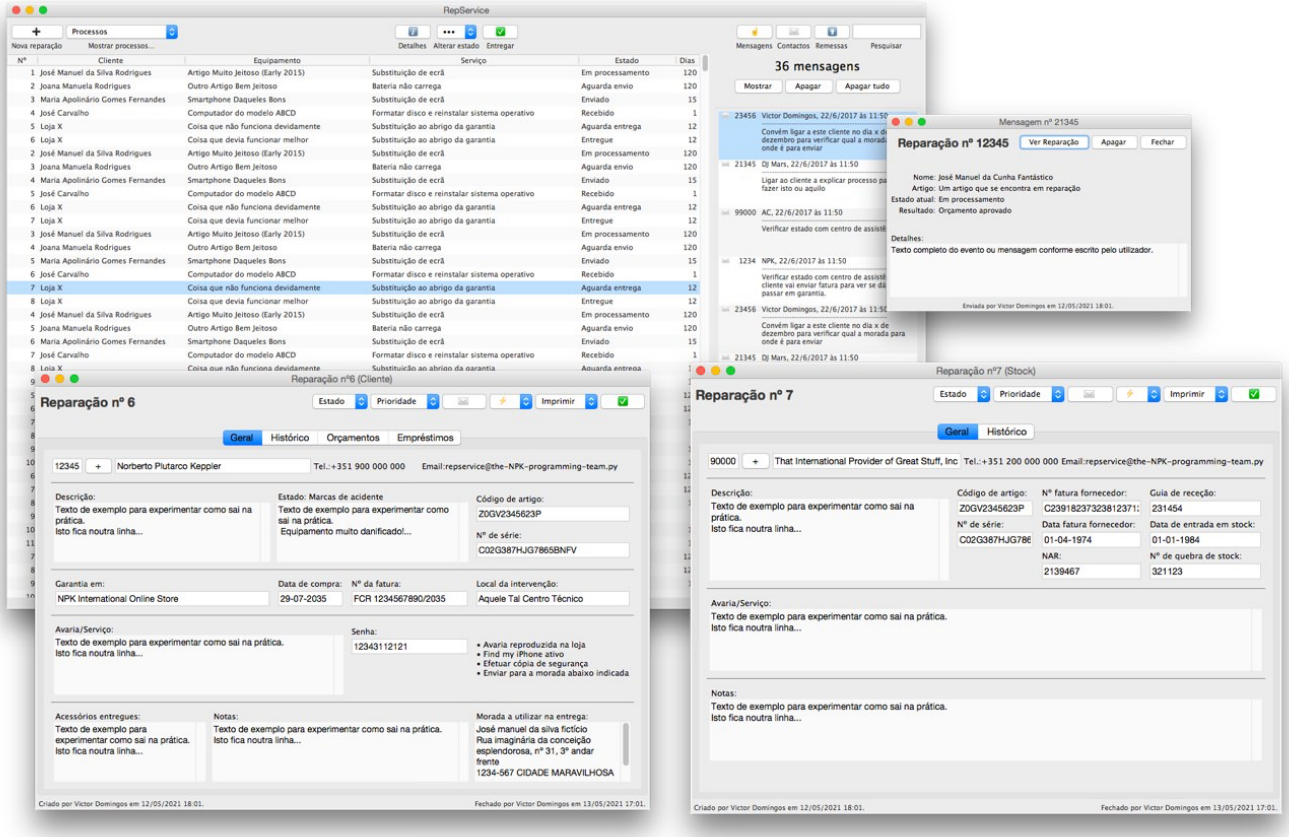
With ttk, you get a nicer look.



Themed widgets can match the platform.



And it can grow, if you need it.



The boilerplate:

```
1  import tkinter as tk
2
3  class MainApplication(tk.Frame):
4      def __init__(self, parent, *args, **kwargs):
5          tk.Frame.__init__(self, parent, *args, **kwargs)
6          self.parent = parent
7
8          <create the rest of your GUI here>
9
10
11 if __name__ == "__main__":
12     root = tk.Tk()
13     MainApplication(root).pack(side="top", fill="both", expand=True)
14     root.mainloop()
```

Available widgets (incl. ttk)

- Label
- Entry
- Button
- Checkbutton
- Menubutton
- Radiobutton
- Combobox
- Text
- Scale
- Scrollbar
- Spinbox
- Progressbar
- Treeview
- Separator
- Toplevel (+windows)
- Frame
- LabelFrame
- PanedWindow
- Notebook
- Sizegrip
- Canvas

…and some more in these modules

- tkinter.scrolledtext
- tkinter.colorchooser
- tkinter.filedialog
- tkinter.messagebox
- turtle

Let’s see it in action!

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PROS

- It’s simple to learn.
- Bundled with Python.
- Highly portable.
- Can look [kind of] native.
- It’s fast enough.
- Mature and stable.
- Free for commercial use.

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CONS

- Limited widget set (e.g. no date picker, no webview).
- No UI designer.
- Doesn’t look *totally* native.
- It’s not as fast as a native Swift or C++ GUI.
- Usually, no new features.

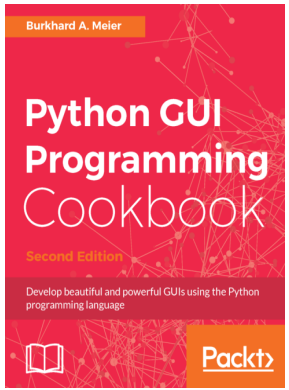
More info:

- https://docs.python.org/3/library/tk.html
- https://tkdocs.com
- http://effbot.org/tkinterbook/tkinter-index.htm
- http://infohost.nmt.edu/tcc/help/pubs/tkinter/tkinter.pdf

If you speak Tcl, explore Tcl/tk docs too.

Useful books:

Tkinter GUI Aplication Development Blueprints
Bhaskar Chaudhary
Packt Publishing, 2015



Python GUI Programming Cookbook
Burkhard A. Meier
Packt Publishing, 2017

In case you get stuck...

- https://stackoverflow.com/questions/tagged/tkinter

Sooner or later, you will probably find, on StackOverflow, some insightful answers from a guy named Brian Oakley. You definitely should trust him. 😉

Thank you!