

PAGE 7 Tips and Tricks

By Greg Walters

I've been using PAGE for over 10 years and over that time, I've learned a number of short cuts that makes my life so much easier as a programmer. So, I'm going to share a few of these with you in this document.

Which Mousebutton Is Which?

Before we start with the “REAL” tips and tricks, we need to understand how Tkinter and Tk define the mouse buttons. This is important because while many people are “right” handed, about 25% of the population of the world is not. They are “left” handed and most of them redefine the mouse buttons to fit their way of life. I have to give a big thank you to **glibersat** on **OpenClipart.org** for the image of the mouse. <https://openclipart.org/detail/2061/plopitech-mouse>

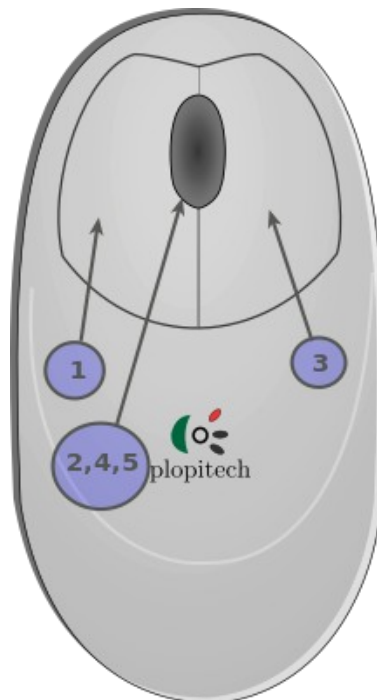


Figure 1: Tkinter mouse button definitions for “right handed” mouse

In the image above (which I modified and added the arrows, circles and numbers) you will see a “normal” 3 button mouse used by a “right handed” person. The button numbers that Tkinter will return go from the left button as number 1, the middle (or scroll) button as number 2 and the right button as number 3. Button numbers 4 and 5 are scroll forward as number 4 and scroll backwards as number 5.

When you redefine the mouse buttons in the Operating System as a “left handed” mouse, the only thing

that changes are buttons 1 and 2 get swapped. Don Rozenberg gave me a very sage piece of advice. Where ever your index finger is on the mouse, that's Button-1.

If you have a special gaming mouse, or are using a laptop with a touch pad, you are pretty much on your own for buttons 3 through 5. See the documentation for your Operating System for instructions on how to emulate a three button mouse

Stash Config

Now that we have we have the definitions of the mouse buttons, we can look at our first PAGE trick. This will be using the **Stash Config** feature of PAGE. You can access it by Button-3 (right mouse button for most people) with the widget you want to share some of it's attributes with other widgets.

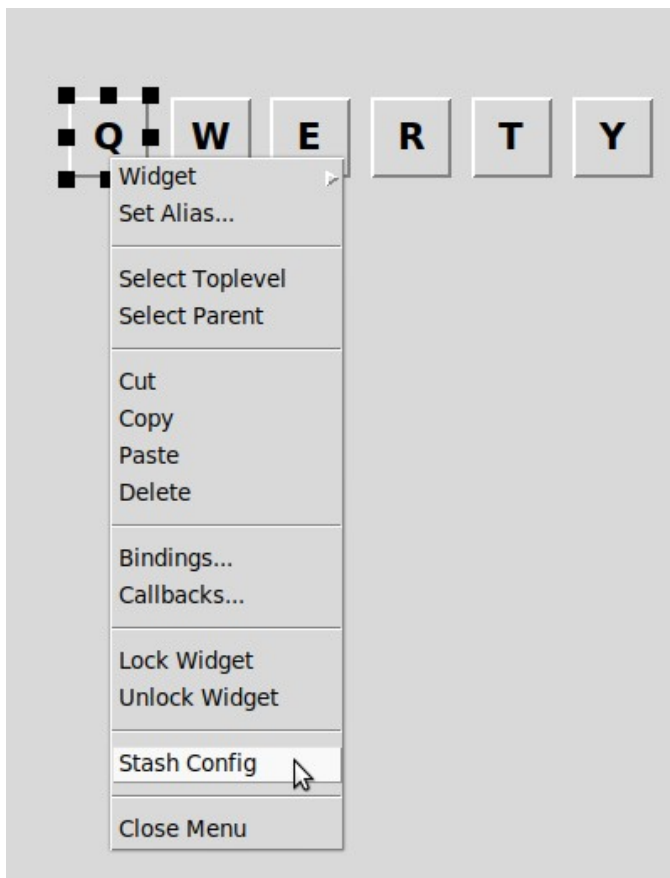


Figure 2: Stash Config Context Menu

This will bring up a dialog that looks something like this:

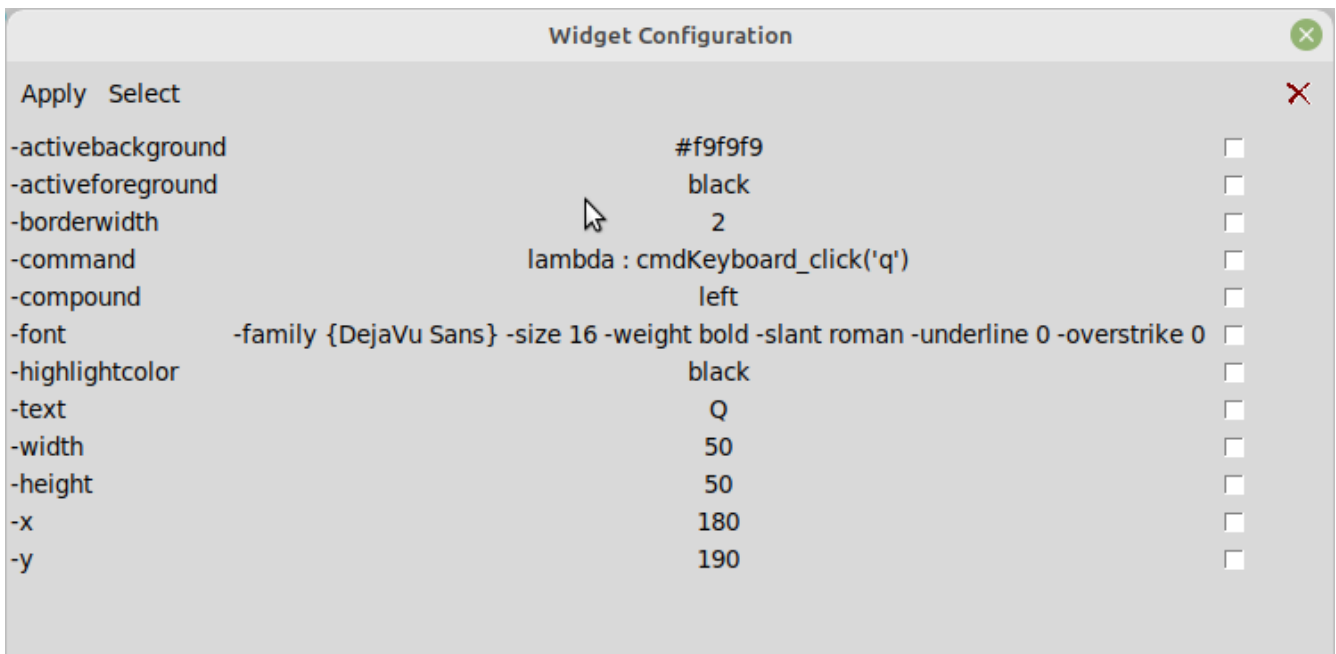


Figure 3: Stash Config Widget Configuration

As you can see, there are many attributes you can share with other widgets. To quickly align a number of widgets horizontally, check the "-x" box (and any others in the dialog that you want) and select Apply.

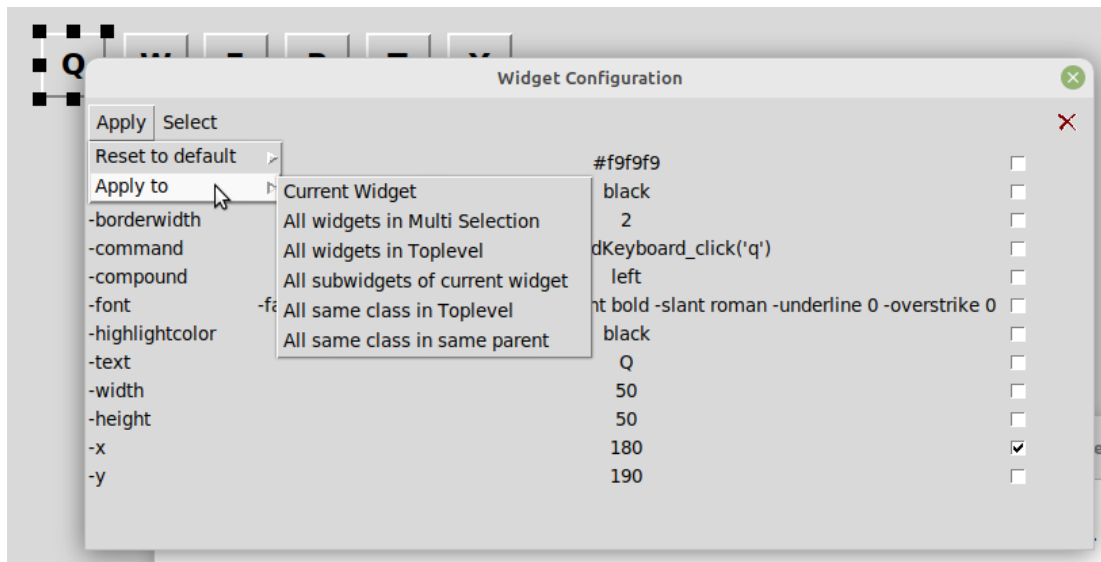


Figure 4: Stash Config - Apply Dialog

Now you have the ability to tell PAGE which widgets to share this to. 99% of the time, I select "All same class in same parent" or "All subwidgets of current widget". Using a frame to hold many of your widgets that “work together” makes this easy.

Once you make the selection, all of the widgets you specified will have those attributes you selected.

Multi-Select

The second way is by using the **Multi-Select** feature of PAGE. You start this process by clicking any widgets you want to select as a group with the MIDDLE (Button-2) mouse button. When you do this, the size handles turn green to notify that is a widget that you have set for MultiSelect.

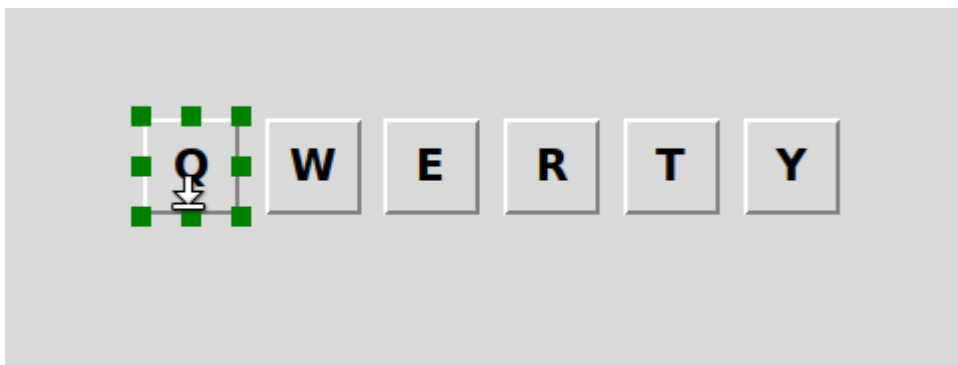


Figure 5: Multi-Select - Starting the process

Now repeat that process for all the other widgets you want to multi-select.

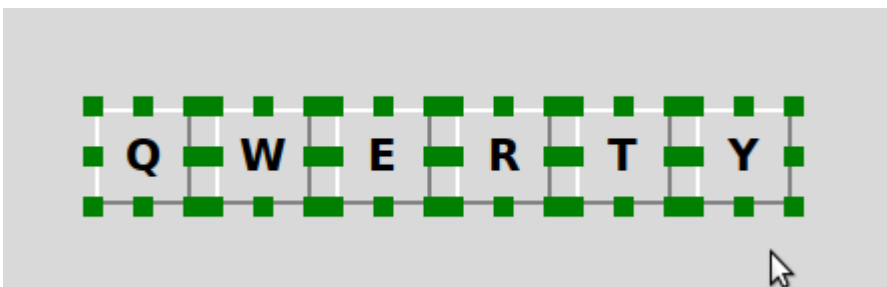


Figure 6: Multi-Select - Multiple Widgets selected

Multi-select has its own context menu, so you can use Button-3 (right click for most people) on any of the multi-selected widgets.

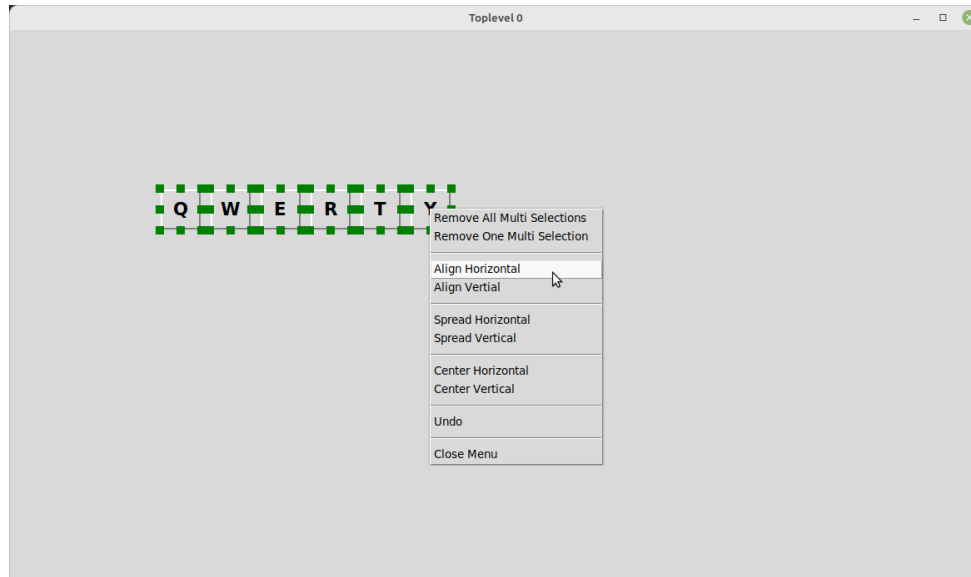


Figure 7: Multi-Select Context Menu

Again, you can see there is the ability to align on axis (horizontal or vertical), evenly spread on an axis and Center on the axis. There's also an undo just in case.

Remember that you can also use the Stash Config with those widgets that are in the multi-select.

You can use the the multi-select feature to move a number of widgets at the same time. Simply use the Up, Down, Right and Left keyboard buttons. Yes, it takes a few extra seconds, but it's quicker to do this rather than move each widget separately.

Grouping Widgets

Many times, it's a good idea to group a number of like widgets (like your keypad) within a Frame or Labelframe widget.

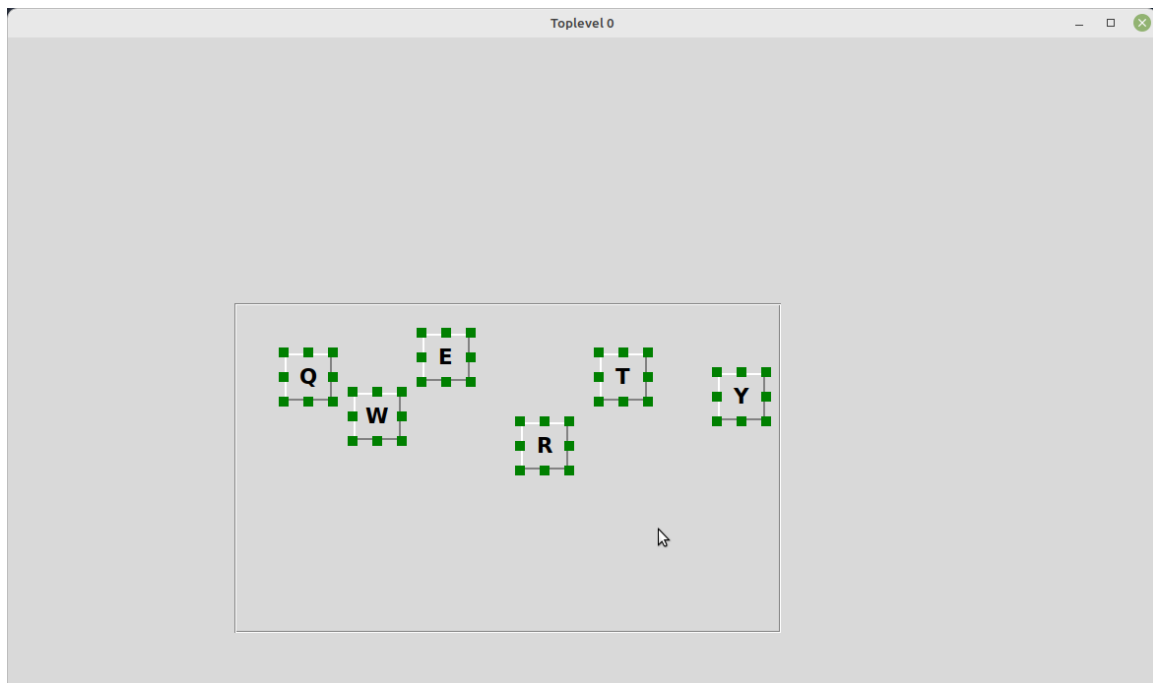


Figure 8: Widgets within a frame

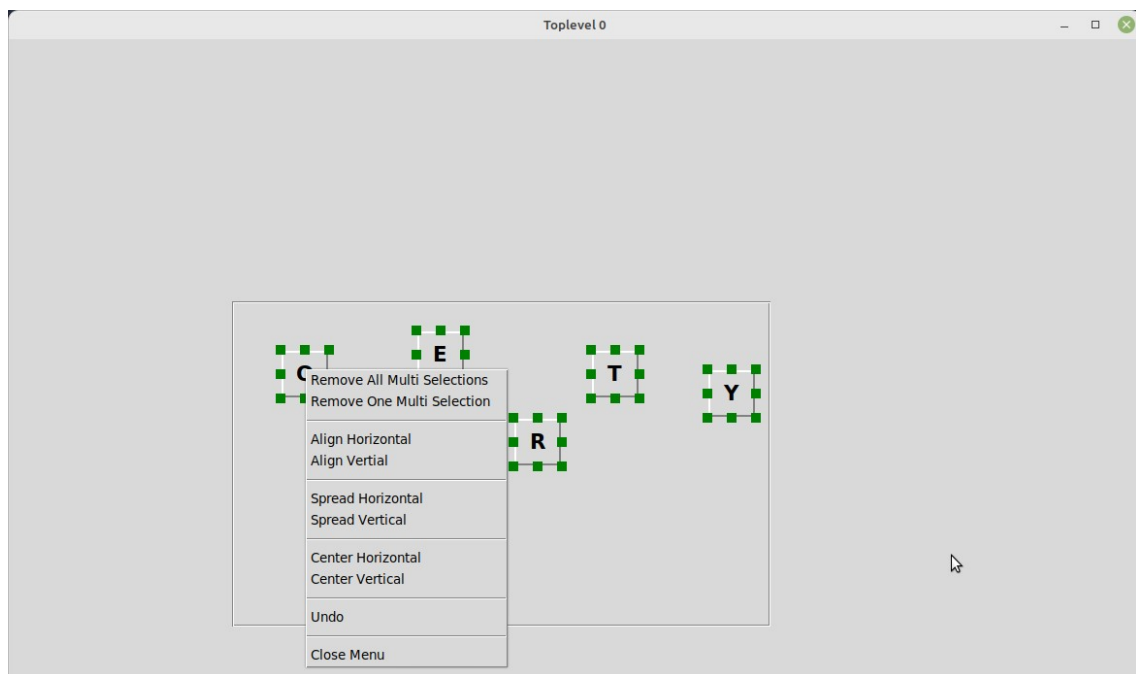


Figure 9: Multi-Select Menu

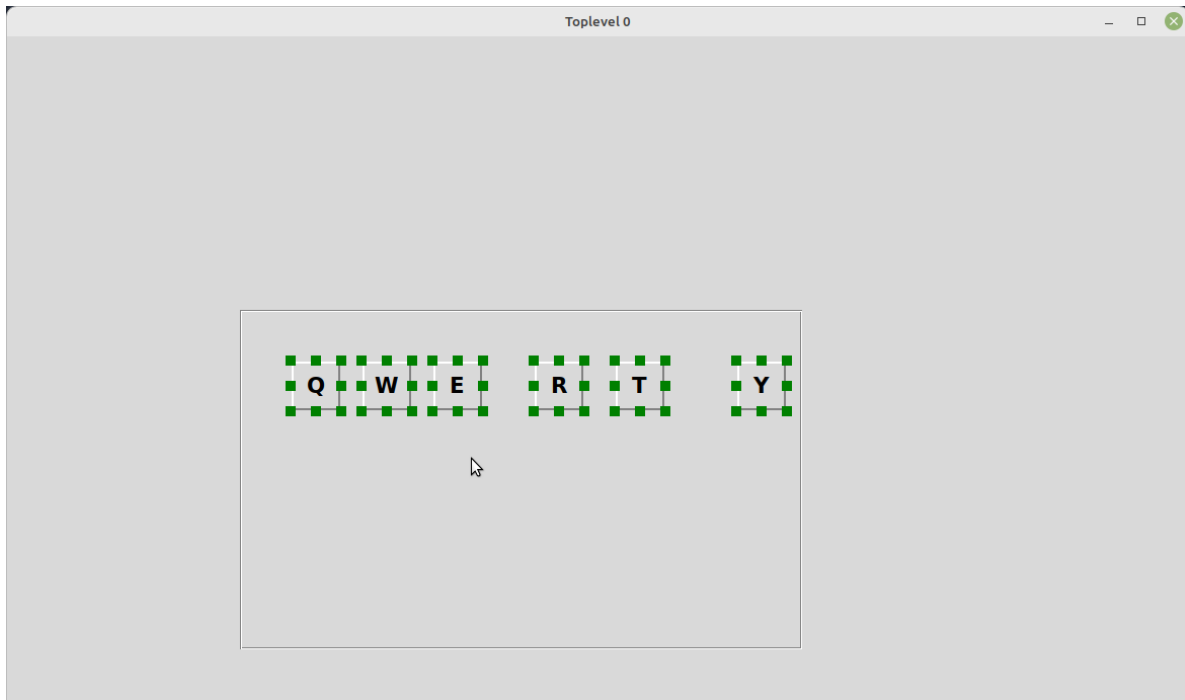


Figure 10: Multi-selected buttons Align Horizontal

You can multi-select them and then use the Stash Config or align horizontal just for that group of widgets. Now the neat trick. Hide the Frame by setting the relief to Flat. Now you can move the entire keypad (or other group of widgets) as one.

“Mini Attribute Editor”

The last hint (for now). Most widgets have a "semi-secret" mini attribute editor that can be accessed by using the mouse Button-3 (again, right click for most people), then holding Button-1 on "Widget". This provides a sub-menu that, in the case of a button, provides "set Text, Set Command, Set Tooltip and Remove image". This sub-menu will change depending on which widget it is.

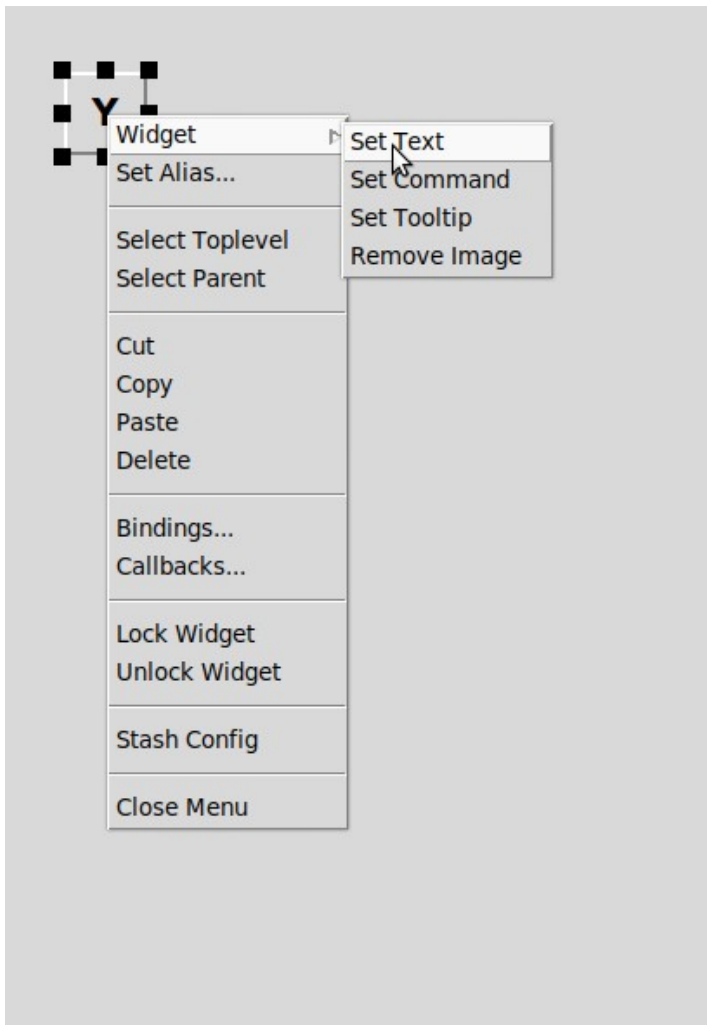


Figure 11: Mini Attribute Editor for Widget

Using Labels In Unusual Ways

Start with a label that you have expanded the width (or height) to be near the length (or height) you want the separator to be. You can always change the width or height using the Attribute Editor, or the handles. However, you might have a bit of trouble selecting the widget once you have clicked off of it. The easiest way to deal with this is to use the Widget Tree to select the widget.

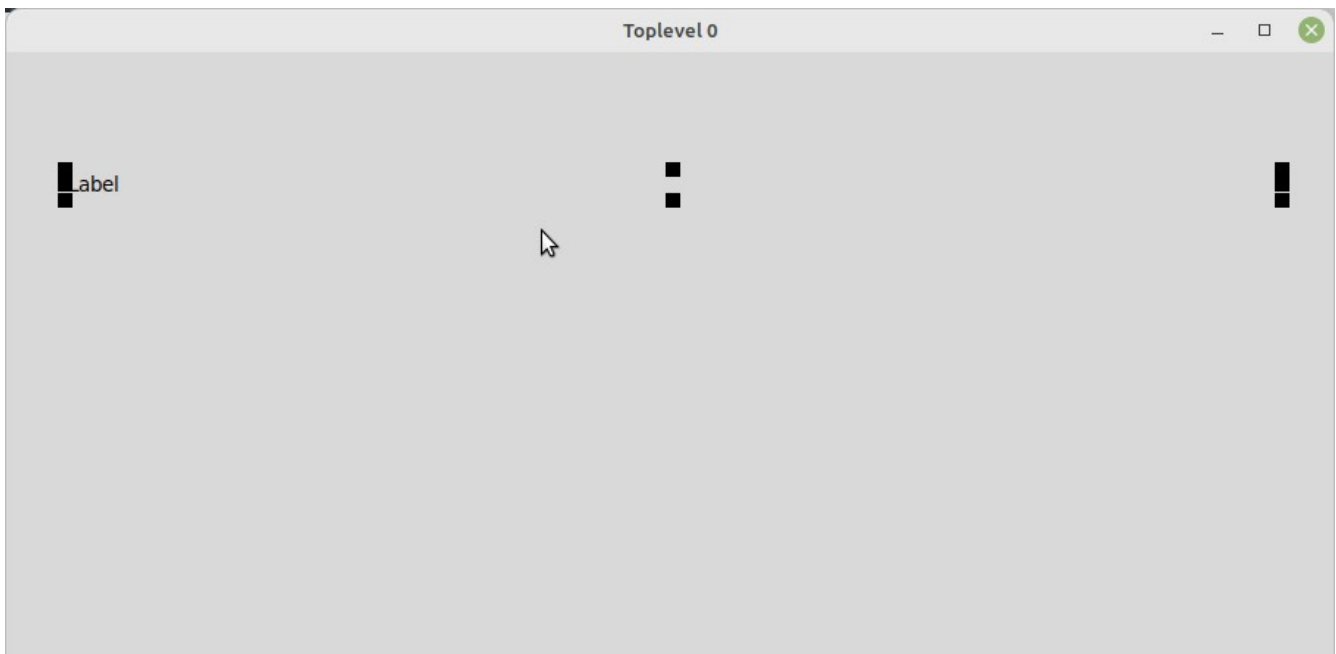


Figure 12: Creating a Label Widget Separator

Delete the text from the label in the Attributes editor. Set the border width to 2. Set the relief to groove for a bump style or sunken for a “trench” style.



Figure 13: Close-up of the Label Separator - Bump style

PAGE does support the TSeparator widget both Horizontal and Vertical. However, since this is a ttk Themed widget, you can’t change the relief or border width unless you change the Style settings.

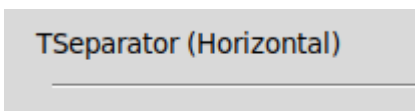


Figure 14: ttk TSeparator

Here is an image comparing the LabelSeparators to the Tseparators.

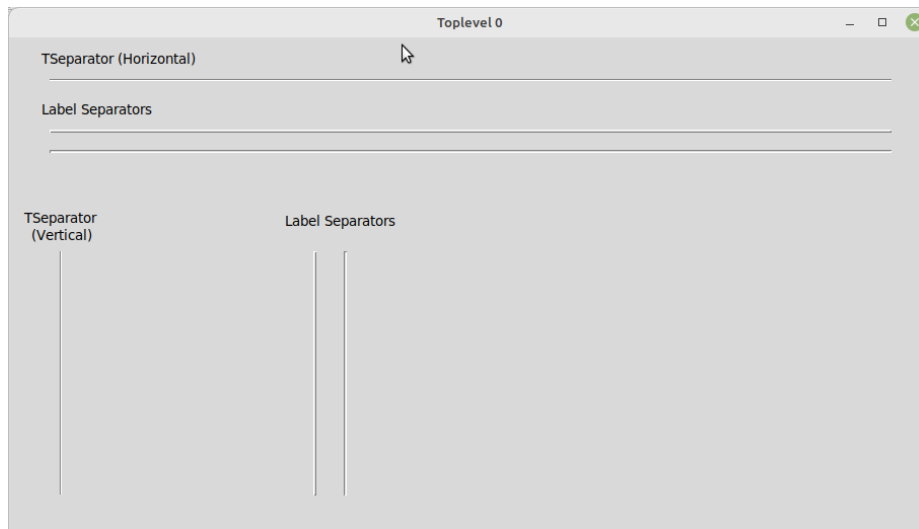


Figure 15: Comparing TSeparators to LabelSeparators

Another neat thing you can do with Label Widgets is to create a Vertical label.

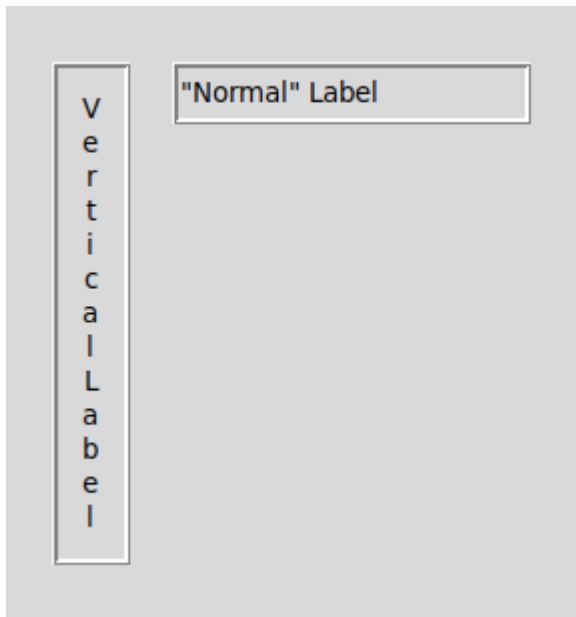
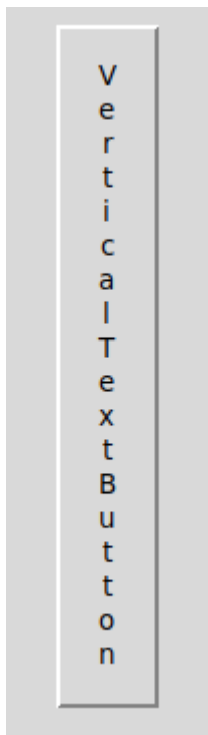


Figure 16: Vertical Text Label

The only drawback (as you can see in the above image) is that any spaces in the text don't show up.

In order to make this trick work, you set the wrap length attribute to 1. This forces Tkinter to only allow space for one character.

You can do the same thing with a Button widget.



*Figure 17:
Vertical Text
Button*

So there you have it. I've shared most of my super secret tips and tricks with you.

Greg