

24th September 2009 Glade3 tutorial (5) - Modifying widget tree

Hi.

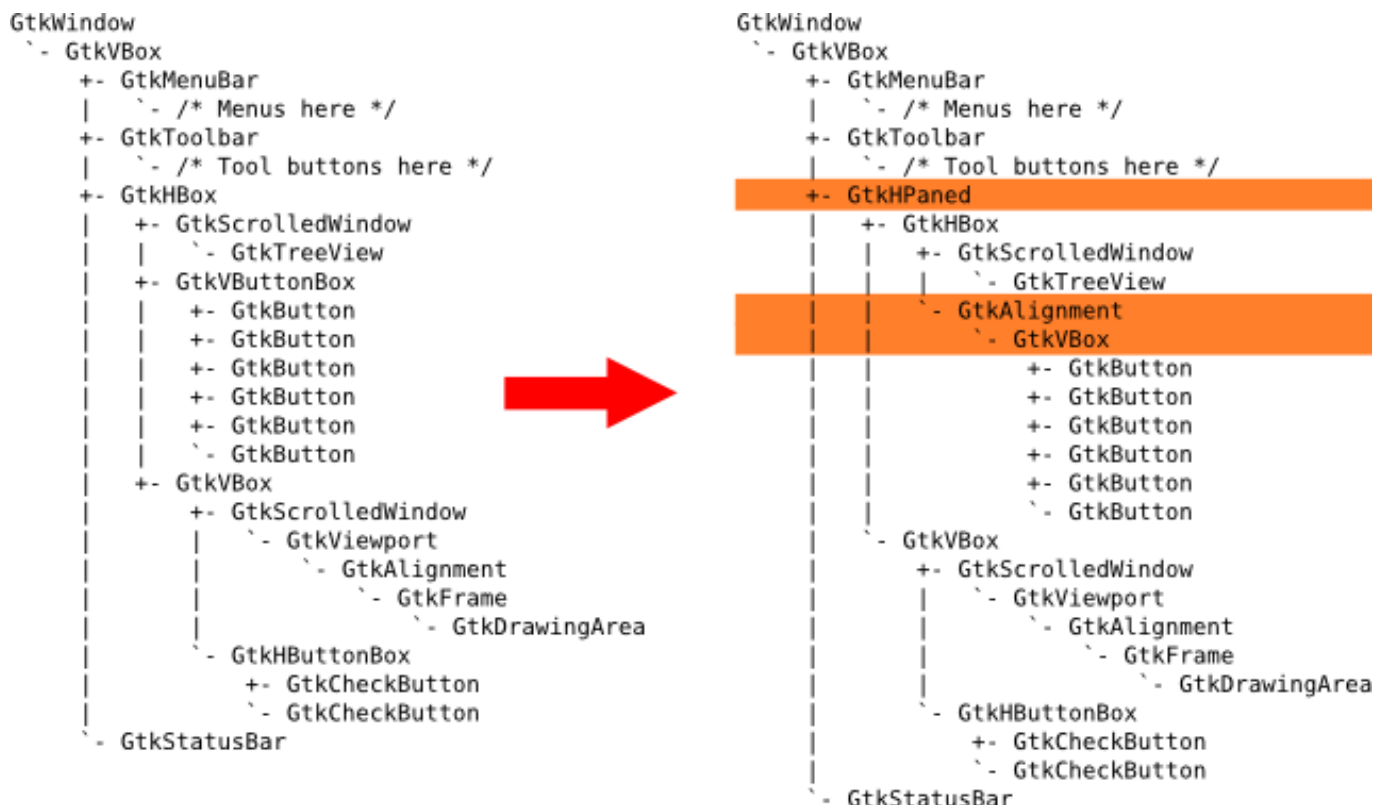
Last time we added data backend to our application, but we discovered at the end that our GUI isn't flexible enough. We'll fix that today by adding paned widget into widget tree and replace image and label buttons with image only buttons.

Contents

- [Glade3 tutorial \(1\) - Introduction](http://tadeboro.blogspot.com/2009/09/glade3-tutorial-1-introduction.html) [http://tadeboro.blogspot.com/2009/09/glade3-tutorial-1-introduction.html]
- [Glade3 tutorial \(2\) - Constructing interface](http://tadeboro.blogspot.com/2009/09/glade3-tutorial-2-constructing.html) [http://tadeboro.blogspot.com/2009/09/glade3-tutorial-2-constructing.html]
- [Glade3 tutorial \(3\) - Size negotiation](http://tadeboro.blogspot.com/2009/09/glade3-tutorial-3-size-negotiation.html) [http://tadeboro.blogspot.com/2009/09/glade3-tutorial-3-size-negotiation.html]
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- [Glade3 tutorial \(6\) - Signals](http://tadeboro.blogspot.com/2009/09/glade3-tutorial-6-signals.html) [http://tadeboro.blogspot.com/2009/09/glade3-tutorial-6-signals.html]

New widget tree

We're going to do some changes to the widget tree. We'll do those changes on paper first and from that we'll create our modification plan. And here are old and new widget trees:



What steps do we need to make to transform old tree (on the left side of the image) into new tree (on the right side)?

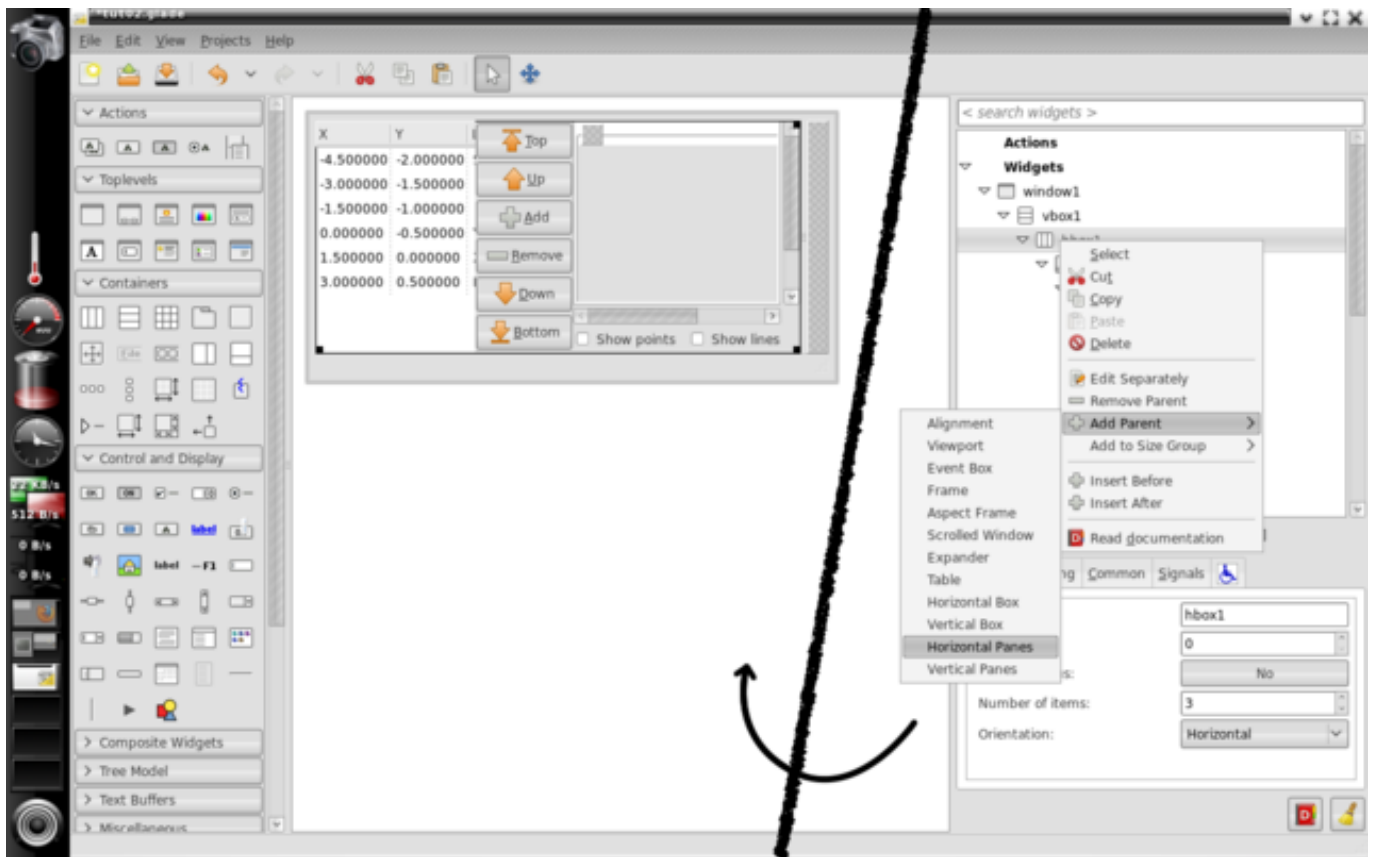
1. Add GtkHPaned as parent of GtkHBox
2. Reparent display area GtkHBox from GtkHBox to GtkHPaned
3. Add GtkAlignment as parent of GtkVButtonBox
4. Replace GtkVButtonBox with GtkVBox
5. Replace stock items on buttons with stock images only

We'll also need to adjust some widget and packing parameters, but to keep initial plan as simple as possible, I'll just describe those changes on-the-go.

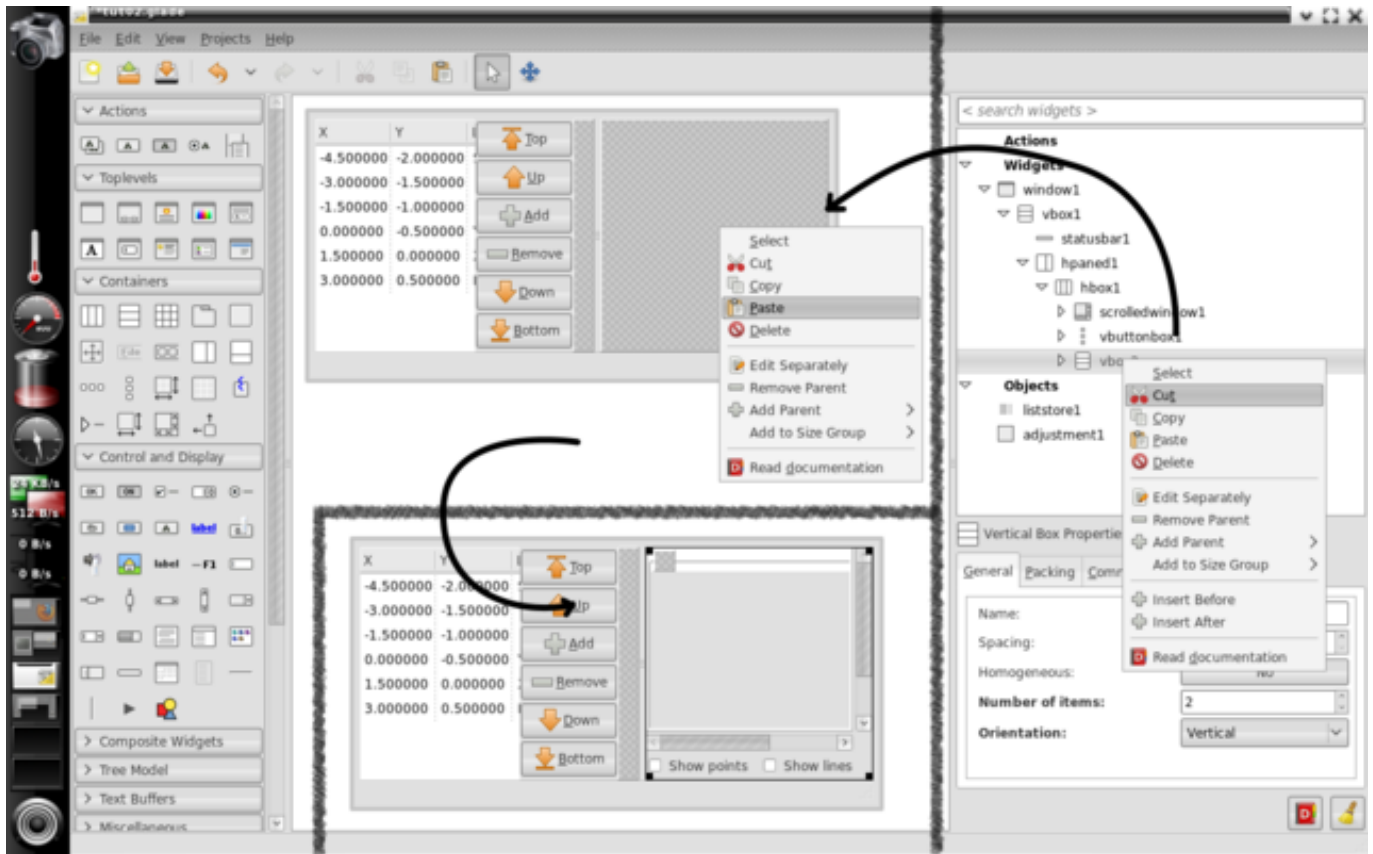
Inserting widget into widget tree

So far, we were building our GUI in top-to-bottom linear manner, where we first constructed parent of the widget and then widget itself. Now I'll show you how to insert widget in the middle of the widget tree.

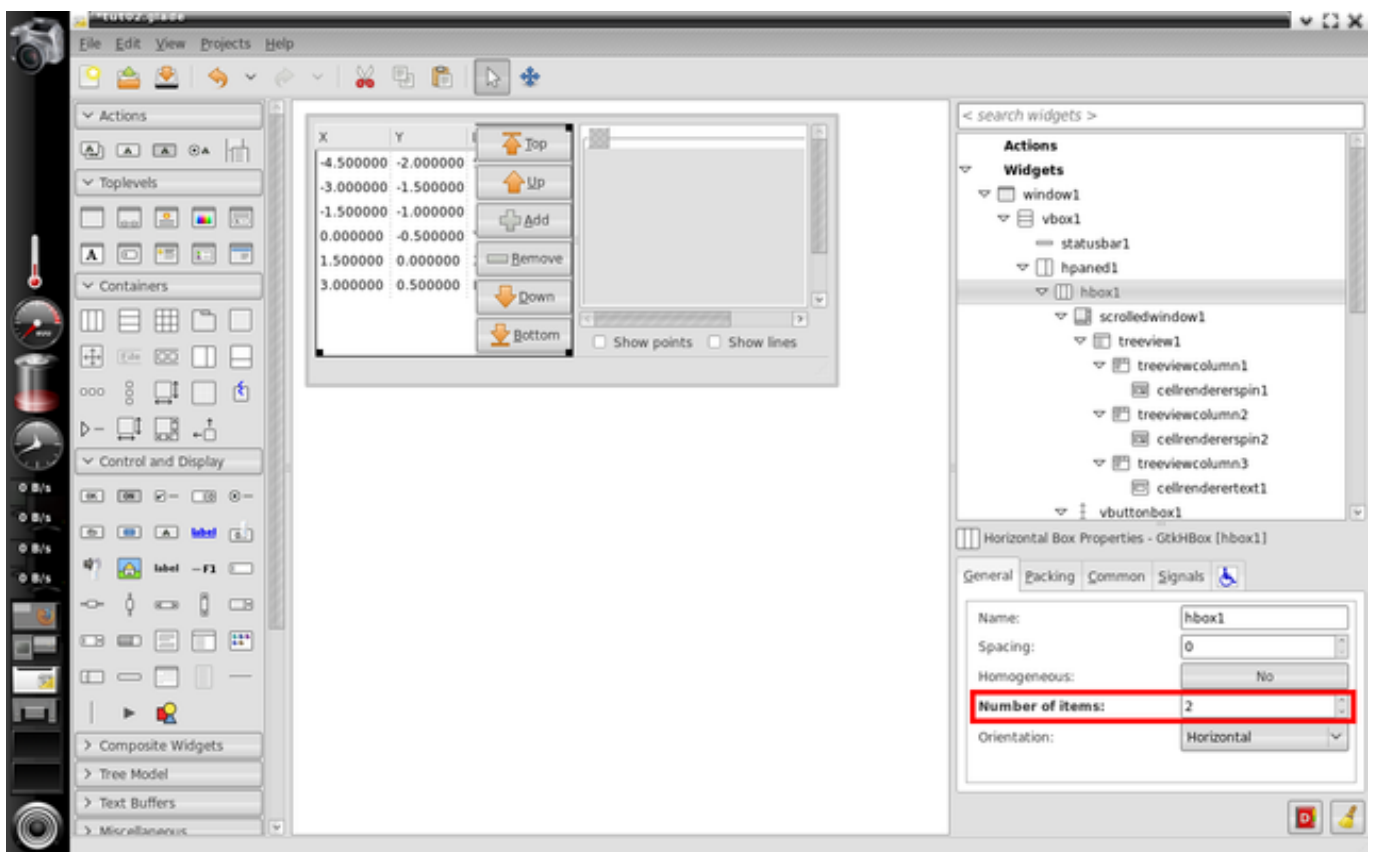
Right click GtkHBox from widget tree and select "Add Parent -> Horizontal Panes". You should end up with something similar to this:



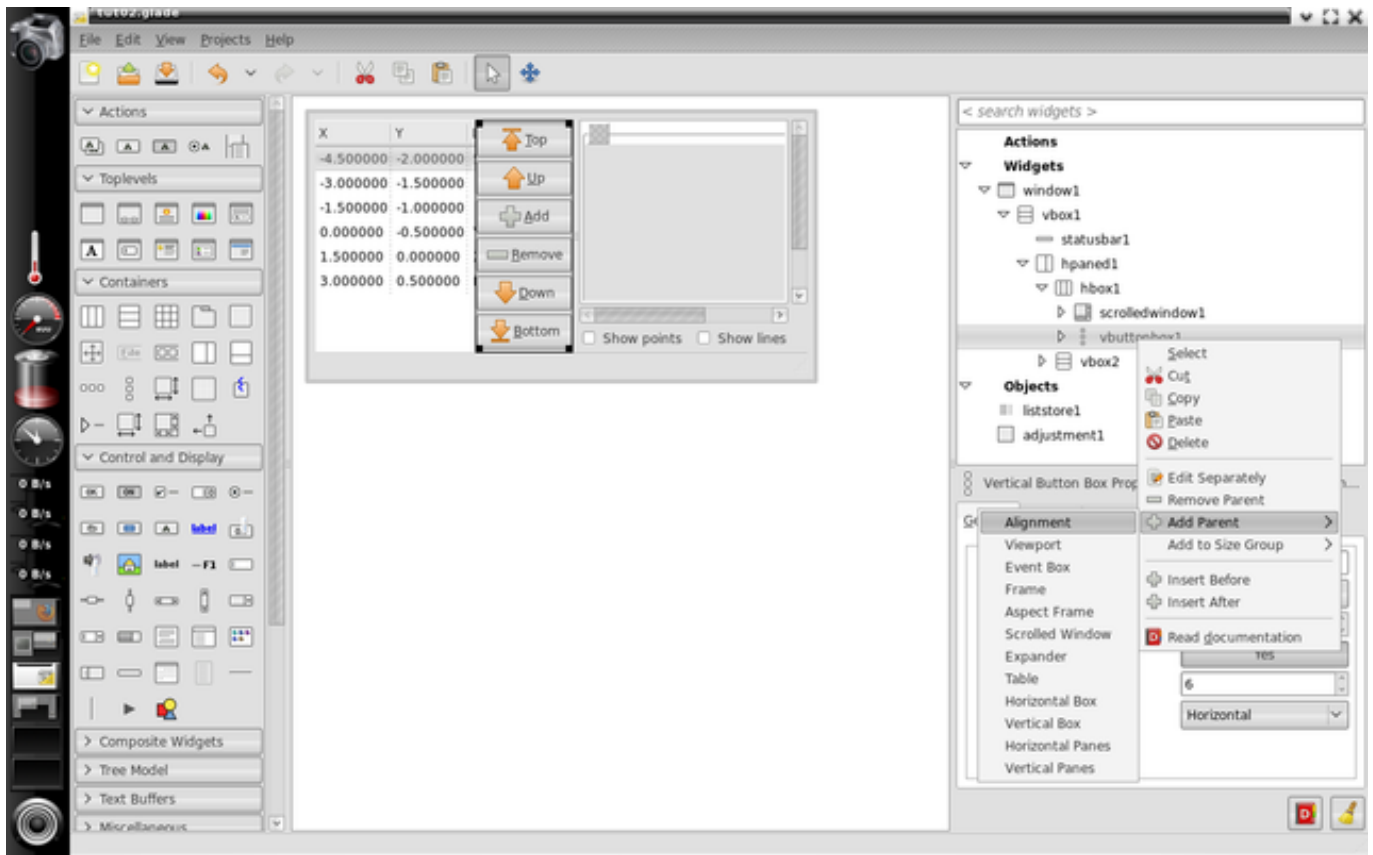
Now we need to reparent display area vertical box to right pane. Right click in vertical box in widget tree and select "Cut". Now right click inside right pane and select "Paste". Simple.



You can see that we have some empty space on the right side of our buttons. To remove it, select horizontal box and decrease number of elements to 2.



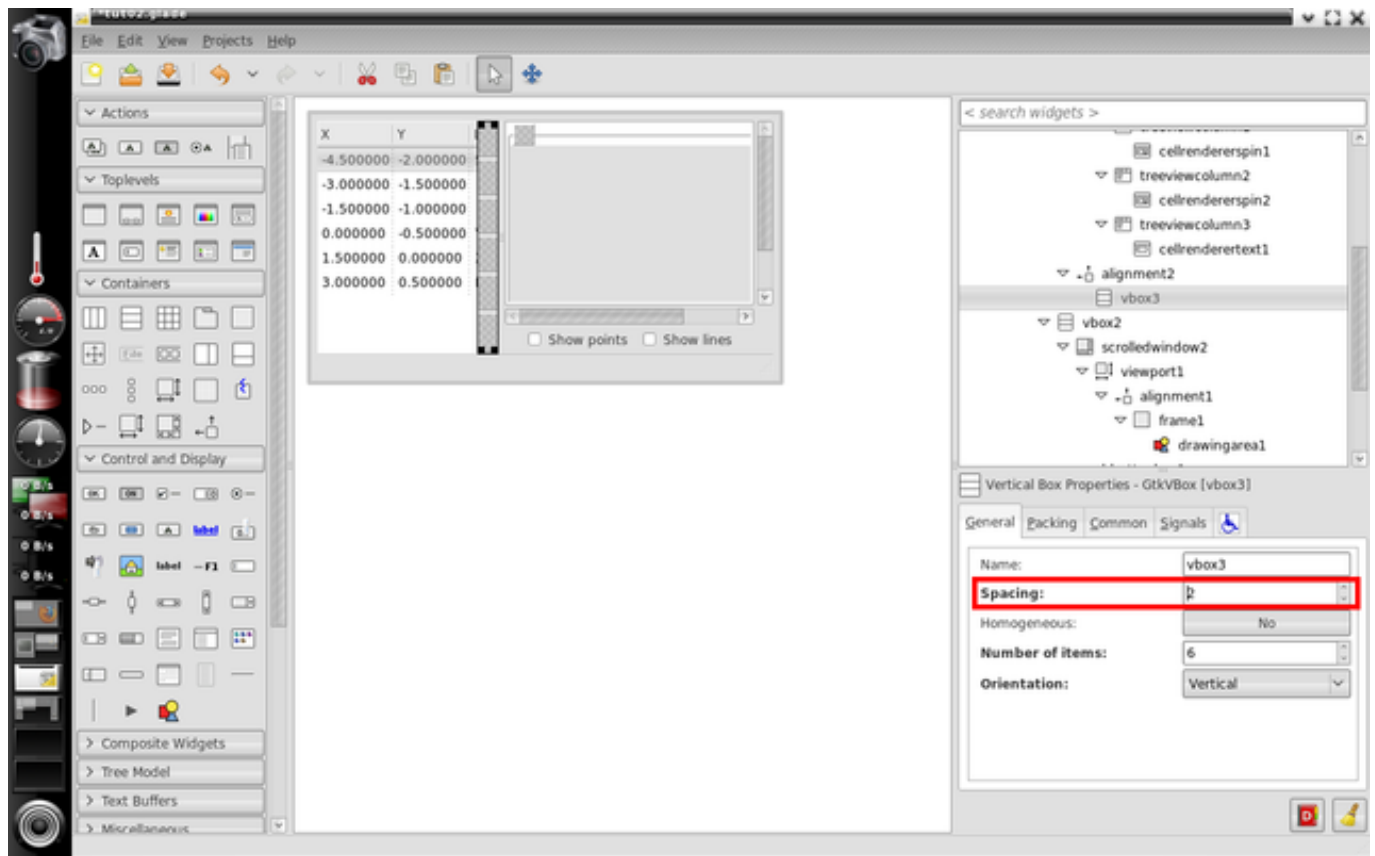
Next on the list is adding GtkAlignment as parent of vertical button box. This process is analogous to adding panes. Right click vertical button box and select "Add Parent -> Alignment". That's all there is to it.



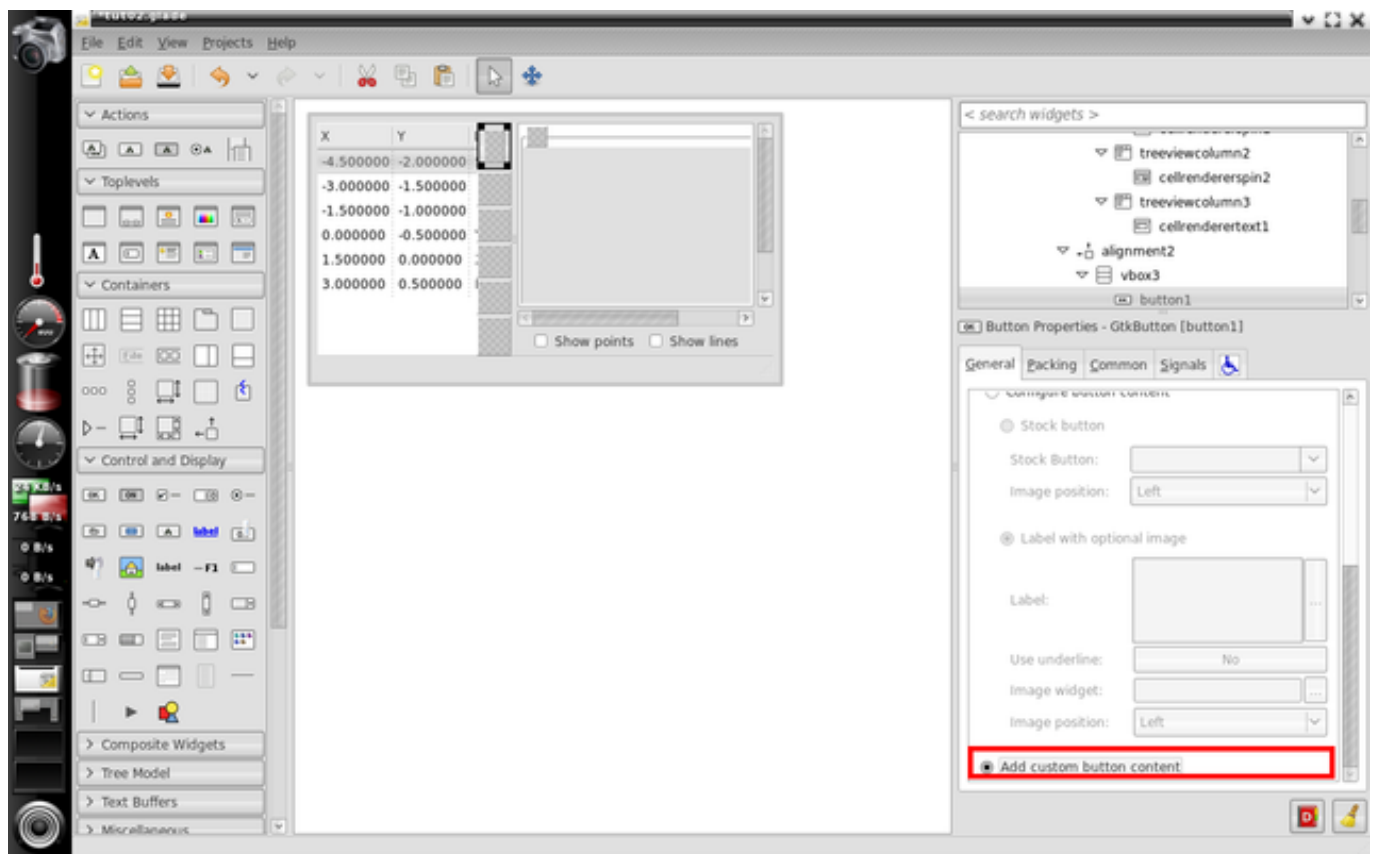
Creating image-only buttons

Last thing we need to do is replace vertical button box with normal vertical box and add only stock icons to the buttons. The simplest way of doing this is to delete the button box and recreate buttons from scratch. We could cut-paste each button, but creating them will be faster in this case.

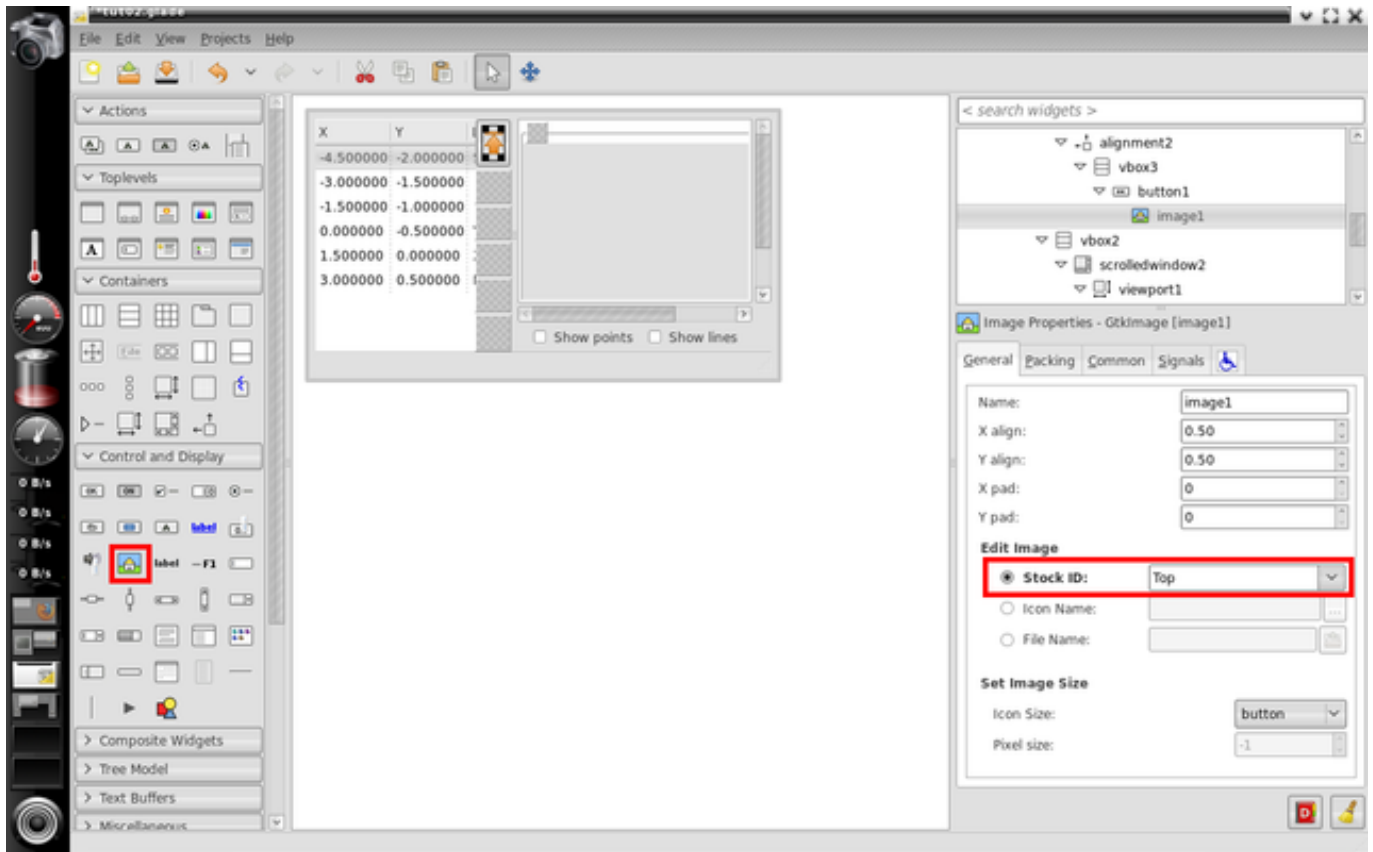
After deleting button box, insert vertical box with 6 elements into empty space and set element spacing to 2 px.



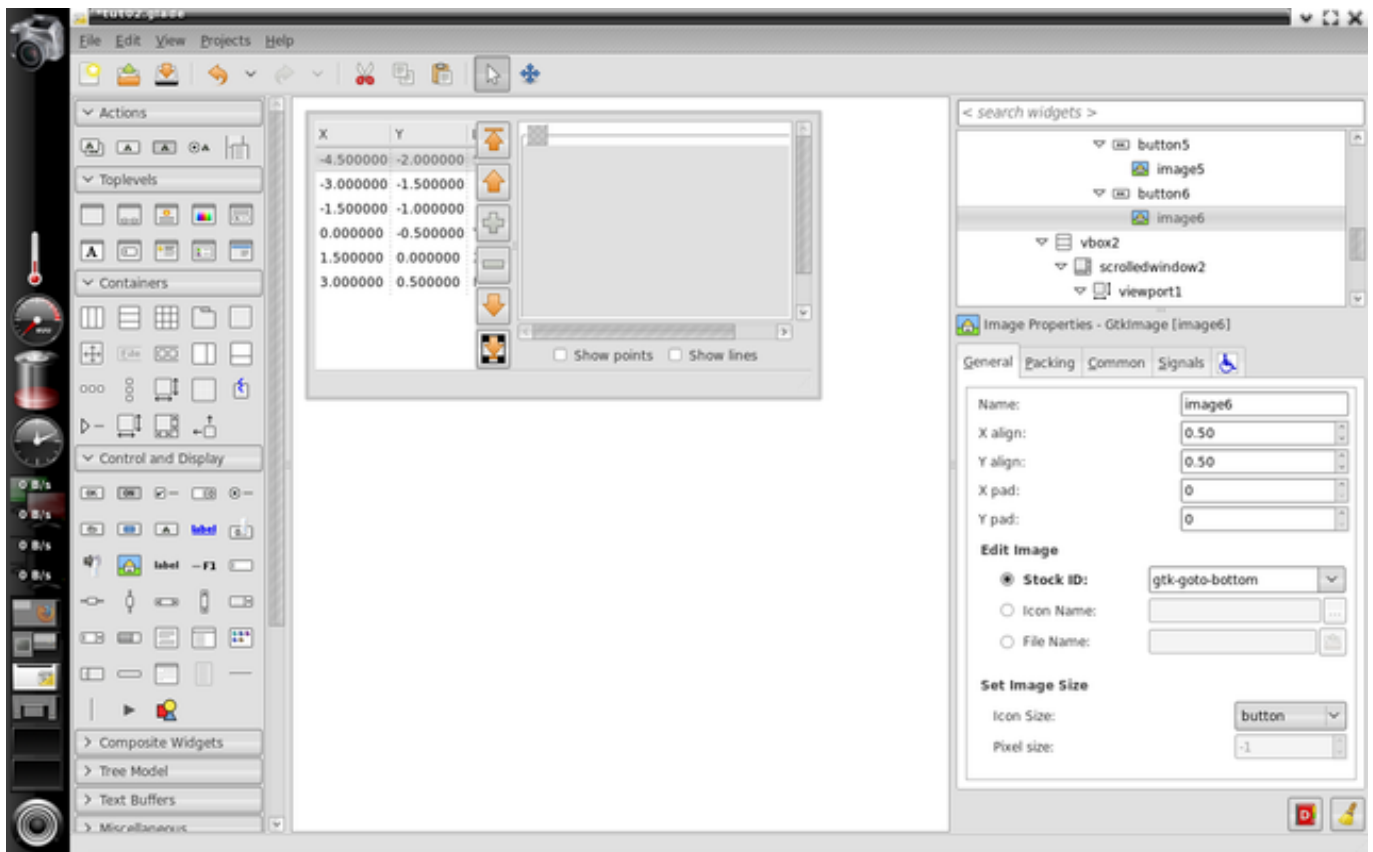
Now create new button, insert it into one of the fields in vertical box and set it's content to custom.



Inside empty space insert GtkImage and set it's stock ID to "e;Top"e;.



Now repeat this five more times, using stock ID's "Up", "Add", "Remove", "Down" and "Bottom". You should see something like this when you finish:



Final tweaks

All that is left now is to tweak our GUI properties a bit. First thing we need to do is make data scrolled window expandable and scrollable. Select scrolledwindow1 and under "General" tab set "Horizontal Scrollbar Policy" to "Automatic". Now open "Packing" tab and set "Expand" to "Yes".


Now select alignment2 and under "General" tab set "Horizontal scale" and "Vertical Scale" to 0, which will make our buttons centered.

And we're done. Save the interface and have fun. Get complete [glade file](http://tadeboro.googlepages.com/tut03.glade) [http://tadeboro.googlepages.com/tut03.glade] or [watch screencast](#) [] as usual.

Next time we'll connect some callbacks (and I mean it;). Stay healthy until then.

Posted 24th September 2009 by [Tadej Borovšak](#)

Labels: [Glade](#), [GTK+](#), [tutorial](#)

 5 View comments



cjs 03 March, 2010 00:40

After inserting the images on the buttons I had to change their size from "Invalid" to "button". Otherwise everything works as you said :)

Admittedly I don't yet understand the significance of setting Horizontal and Vertical scales to zero for alignment2.

[Reply](#)



pcs 05 April, 2010 15:56

There is a small typo (if I understand it correctly :-). The second step should be "Reparent display area GtkVBox..." instead of GtkHBox. Anyhow it helped me using Glade. As a next [step](#) I tried to change the widget tree dynamically (by the application itself) while still using Glade as the GUI design tool.

[Reply](#)



kholis 23 August, 2010 09:36

@cjs

"Admittedly I don't yet understand the significance of setting Horizontal and Vertical scales to zero for alignment2."

it to prevent image only button to expand and fill available space. and keep it as compact as possible.

[Reply](#)



ibnkhaldun 06 June, 2011 05:39

Horizontal and vertical scales are percentual values, meaning: 0 no extra space is offered to nested objects, while 1 means all extra space is offered to them

[Reply](#)

Anonymous 18 October, 2012 11:23



How do I use an "menu_image.png" (GtkImage) for background style & design or button graphic?

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