
Subject: widget_base alignment question

Posted by [mperrin+news](#) on Thu, 17 Feb 2005 03:50:46 GMT

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I'd like to create a resizable widget app which looks kind of like this:

```
+-----+
| LEFT_ALIGNED_LABEL    RIGHT_ALIGNED_LABEL |
|                               |
|      draw widget        |
|      some other stuff... |
+-----+
```

but I can't figure out if this is possible in IDL. The top-level base has COLUMN set, and then into that I first place a widget_base with ROW set. But I can't figure out how to make this base span the entire width of my larger, resizable TLB. Is there a trick here, some keyword I've been missing?

It actually doesn't even have to be really right aligned, so long as it's spaced over to the right. Currently I am getting

```
+-----+
| LEFT_ALIGNED_LABEL RIGHT_ALIGNED_LABEL    |
|                               |
|      draw widget        |
|      some other stuff... |
+-----+
```

and when I resize the window it just adds whitespace to the right of both labels, rather than padding between or around both.

Having read through the IDL documentation on widget_base, and skimmed through all the widget stuff in Dave Fanning's most excellent book, I'm still stuck on this one. This is easy in GTK! Why is it so hard (or at least obscure) in IDL?!

- Marshall

Subject: Re: widget_base alignment question

Posted by [David Fanning](#) on Mon, 21 Feb 2005 21:35:09 GMT

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JD Smith writes:

> Useful layout trick. Does this work for everyone? Why does Linux
> suffer here?

Suffer!? You don't even want to know! I made the mistake
of making my Catalyst test application available. It is
a nightmare. Private discussions lead me to conclude even
RSI is not immune to the problems caused by differences
in graphical user interface implementations.

> Unless I realize the widgets first, and set the xsize
> after, the labels are piled up on each other (see
> turtle.as.arizona.edu/idl/test_pre.png and
> turtle.as.arizona.edu/idl/test_fix.png). But even that doesn't really
> fix it, cutting off part of the "t" in "right".

I think this might be because your draw widget is probably
slightly bigger than you think it is. In Windows, anyway,
there is a 3 pixel "border" around the canvas of a draw
widget, and this has to be accounted for if things are to
align themselves. I offer my test program as an example that
ran OK in Windows.

```
.*****
```

```
,  
Pro TEST_EVENT, event  
Widget_control, event.top, Get_UValue=info
```

```
Print, event.x, event.y  
Widget_Control, info.labelbase, XSIZE=event.x-6  
Widget_Control, info.draw, XSIZE=event.x  
END
```

```
PRO TEST  
tlb = Widget_base(column=1, /TLB_Size_Events)  
base = widget_base(tlb, Row=1)  
labelbase = Widget_Base(base, Column=2, /Grid, xsize=194)  
button = Widget_Label(labelbase, Value='Align Left', align_left=1)  
button = Widget_Label(labelbase, Value='Align Right', align_right=1)  
draw = widget_Draw(tlb, xsize=200, ysize=100)  
Widget_Control, tlb, /Realize, Set_UValue={labelbase:labelbase,  
draw:draw}  
Xmanager, 'test', tlb, /No_Block  
END
```

```
.*****
```

> Then when it gets resized, and a TLB_SIZE_EVENTS comes in, it is clearly
> lying about the "frame-free" size of the usable window area, and the
> widgets are resized to overfill the window (see

> turtle.as.arizona.edu/idl/test_post.png). Does anyone at RSI actually go
> through the layout on all of their systems to see what works?

I presume you are asking a rhetorical question here. :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Subject: Re: widget_base alignment question

Posted by [JD Smith](#) on Tue, 22 Feb 2005 00:15:44 GMT

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On Mon, 21 Feb 2005 14:35:09 -0700, David Fanning wrote:

> JD Smith writes:

>

>> Useful layout trick. Does this work for everyone? Why does Linux

>> suffer here?

>

> Suffer!? You don't even want to know! I made the mistake

> of making my Catalyst test application available. It is

> a nightmare. Private discussions lead me to conclude even

> RSI is not immune to the problems caused by differences

> in graphical user interface implementations.

>

>> Unless I realize the widgets first, and set the xsize

>> after, the labels are piled up on each other (see

>> turtle.as.arizona.edu/idl/test_pre.png and

>> turtle.as.arizona.edu/idl/test_fix.png). But even that doesn't really

>> fix it, cutting off part of the "t" in "right".

>

> I think this might be because your draw widget is probably

> slightly bigger than you think it is. In Windows, anyway,

> there is a 3 pixel "border" around the canvas of a draw

> widget, and this has to be accounted for if things are to

> align themselves. I offer my test program as an example that

> ran OK in Windows.

>

> .*****
> ,

> Pro TEST_EVENT, event

> Widget_control, event.top, Get_UValue=info

>

```

> Print, event.x, event.y
> Widget_Control, info.labelbase, XSize=event.x-6
> Widget_Control, info.draw, XSize=event.x
> END
>
> PRO TEST
> tlb = Widget_base(column=1, /TLB_Size_Events)
> base = widget_base(tlb, Row=1)
> labelbase = Widget_Base(base, Column=2, /Grid, xsize=194)
> button = Widget_Label(labelbase, Value='Align Left', align_left=1)
> button = Widget_Label(labelbase, Value='Align Right', align_right=1)
> draw = widget_Draw(tlb, xsize=200, ysize=100)
> Widget_Control, tlb, /Realize, Set_UValue={labelbase:labelbase,
> draw:draw}
> Xmanager, 'test', tlb, /No_Block
> END
> ,*****
>
>> Then when it gets resized, and a TLB_SIZE_EVENTS comes in, it is clearly
>> lying about the "frame-free" size of the usable window area, and the
>> widgets are resized to overfill the window (see
>> turtle.as.arizona.edu/idl/test_post.png). Does anyone at RSI actually go
>> through the layout on all of their systems to see what works?
>
> I presume you are asking a rhetorical question here. :-)

```

I presume you know the answer to that ;).

Your test program behaves differently, but just as poorly. I found out that at least one of the problems is entirely unrelated to the draw widget: grid layouts under X don't like to be resized in the least. You can show it like this:

```

top=widget_base(/COLUMN)
b=widget_base(top,/GRID_LAYOUT,COLUMN=2,/FRAME)
l=widget_label(b,value='ALIGN_LEFT',/ALIGN_LEFT,/FRAME)
l=widget_label(b,value='ALIGN_RIGHT',/ALIGN_RIGHT,/FRAME)
widget_control, b,/realize

```

Looks fine, nicely centered and aligned. Now try:

```

widget_control, b,xsize=200

```

The rightmost box shifts inside of its frame to cut off the last letter. Why? I'm not asking for a herculean alignment effort, merely to increase the size of the label base. And heaven forbid that I give the grid base an xsize to begin with (though SCR_XSIZE seems to work initially, but not on subsequent sizings). I think RSI needs to

chain an intern to a desk this Spring and have her go through all possible combinations of widget alignment on all platforms, and take careful note of all the inconsistencies. Volunteers?

JD

Subject: Re: widget_base alignment question

Posted by [David Fanning](#) on Tue, 22 Feb 2005 00:45:19 GMT

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JD Smith writes:

```
> Your test program behaves differently, but just as poorly. I found out
> that at least one of the problems is entirely unrelated to the draw
> widget: grid layouts under X don't like to be resized in the least. You
> can show it like this:
>
> top=widget_base(/COLUMN)
> b=widget_base(top,/GRID_LAYOUT,COLUMN=2,/FRAME)
> l=widget_label(b,value='ALIGN_LEFT',/ALIGN_LEFT,/FRAME)
> l=widget_label(b,value='ALIGN_RIGHT',/ALIGN_RIGHT,/FRAME)
> widget_control, b,/realize
>
> Looks fine, nicely centered and aligned. Now try:
>
> widget_control, b,xsize=200
>
> The rightmost box shifts inside of its frame to cut off the last
> letter. Why?
```

Windows doesn't cut the letter off, but it does jam the button frame up against the base frame in a way that doesn't happen to the frames on the left. It looks ugly, but, ... well, what else is new? Something is not right, clearly.

```
> I'm not asking for a herculean alignment effort, merely
> to increase the size of the label base. And heaven forfend that I
> give the grid base an xsize to begin with (though SCR_XSIZE seems to
> work initially, but not on subsequent sizings). I think RSI needs to
> chain an intern to a desk this Spring and have her go through all
> possible combinations of widget alignment on all platforms, and take
> careful note of all the inconsistencies. Volunteers?
```

Oh, Lord. Would this be a *paid* internship? I've got a couple of young men at home who are looking for a job this summer. :-)

Cheers,

David

--

David Fanning, Ph.D.

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