
Subject: Re: Tip for using Compound Widgets

Posted by [David Fanning](#) on Tue, 06 Aug 2002 02:04:03 GMT

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M. Katz writes:

- > Since I'm over 30, I'm still getting used to object programming. I'm
- > using it all the time for creating complicated graphics and even for
- > the file-output tasks, but it's still "new" to me.

Over 30!? I can only imagine. :-)

- > The idea of the compound widget is that we create something new that
- > behaves like one of the basic elemental widgets. I can see making the
- > leap to objects in several ways, and I'm interested to hear how you'd
- > recommend doing it. (Have you written any tips for it on your site?)

Have a look at FSC_FIELD. That is a compound widget that is written as an object.

http://www.dfanning.com/programs/fsc_field.pro

- > When using a compound widget, one accesses the child widgets through
- > the parent. That includes events and SET/GET_VALUE. That's the issue I
- > was trying to solve: making SET_VALUE more intelligently access the
- > functions of the compound widget.
- >
- > So, in an object widget, (here's where I'm guessing) one doesn't need
- > the compound widget formalism. You create an object that knows all
- > about the children and dispense completely with
- >
- > widget_control, SET_VALUE=... in favor of
- > widget_obj -> Do_Something, arg

That is right, exactly!

- > But what exactly happens to events?

I have an "event handler" for the compound widget (same as in widgets), but any widget that generates events has a structure in its UVALUE that has an "object" field and a "method" field. For example, here is a quit button (in another program, not FSC_FIELD):

```
button = Widget_Button(bbase, Value='Quit', $
    UVALUE={object:self, method:'Quit'})
```

All the event handler does is get the user value and dispatch the

event to this method of this object:

```
PRO EVENTHANDLER, event
Widget_Control, event.id, Get_UValue=cmd
Call_Method, cmd.object, cmd.method, event
END
```

I use the EVENTHANDLER to handle *all* object widget events. The objects and methods vary, of course. The methods are written *exactly* like previous event handler procedures, except they don't have to have the info structure, since the info structure *is* the object!

> Does it take a lot longer to program the object widget than the
> equivalant compound widget?

No, about the same amount of time.

> Is there a template that's been published that other people follow, so
> object newbies don't have to re-invent the wheel? Does RSI have
> anything to say about the subject, as they do for compound widgets?

I don't know if RSI has anything to say about the subject. Some of those guys write nice object code, however. I've learned a lot by studying it. :-)

Cheers,

David

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