
Subject: Re: Event handler as an object method ??

Posted by [David Fanning](#) on Tue, 09 Nov 2004 12:30:21 GMT

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Antonio Santiago writes:

> Hi, is there a reason why an object method can't be used as an event handler?

No reason at all. In fact, it is only a short step now before you realize widgets should be objects. :-)

>
> I just created an object that "contains" a WIDGET_DRAW. I'd like that
> the event occurred on WIDGET_DRAW was handled by a method of my class,
> but EVENT_FUNCTION and EVENT_PRO keywords do not accept a method.
>
> The solution I have adopted is to catch the event of WIDGET_DRAW outside
> of the object (on a WIDGET_BASE where I put the object (really de
> WIDGET_DRAW)) and redirect it to the method I want
> (MyObject->EventHandler), but this is an ugly solution.

In the absence of help from RSI, most solutions are more or less ugly. The solution I usually adopt is to have all events go to a generic event handler. In the event handler, a "command" structure is extracted from the user value of the widget that caused the event. The "command" is an anonymous structure containing an "object" and a "method" field. All the event handler does is extract the command structure and use CALL_METHOD to call the method field on the object field, passing the event structure as a parameter to the "event handler method".

To make this work, every widget that is going to generate an event has a "command" structure stored in its user value:

```
drawID = Widget_Draw(tlb, XSize=400, YSize=400, $  
    UValue={object:myobject, method:'MyEventHandlerMethod'})
```

The generic widget event handler does this:

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

In my Catalyst Library, all widgets are objects and the "fields" of the "event structure" all point to objects as well, so this slight of hand feels a little more natural. Instead of using Event_Pro or Event_Func to direct events, you can use an Event_Method keyword to define the appropriate method to handle the event

If an event method is not specified, we use a EventHandler method that is always associated with an widget object.

Cheers,

David

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David W. Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

Phone: 970-221-0438, IDL Book Orders: 1-888-461-0155
