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Subject: Re: CW\_FIELD question

Posted by [cmancone](#) on Fri, 25 May 2007 18:19:02 GMT

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On May 25, 2:01 pm, mark...@gmail.com wrote:

> I know there must be something basically wrong with my thinking on  
> this, but I can't figure out why this doesn't work. I'm writing a  
> program that makes use of DRAW and TEXT widgets without an event  
> handling routine. I would like some widgets to be used as numeric  
> entry fields in which the user can enter numeric data to be read by  
> the program. These should not be modal widgets.  
> Here is an example of what I'm trying to do:

```
>  
> PRO Example  
>  
>   tlb = Widget_Base(Column=1)  
>  
>   field1 = WIDGET_TEXT(tlb, /EDITABLE)  
>  
>   field2 = CW_FIELD(tlb, /FLOATING)  
>  
>   WIDGET_CONTROL, tlb, /REALIZE  
>   XManager, 'example', tlb, /No_block  
>  
>   quita = 0  
>  
>   curval=""  
>  
>   WIDGET_CONTROL, field1, GET_VALUE=curval  
>  
>   while quita ne 1 do begin  
>  
>       WIDGET_CONTROL, field1, GET_VALUE=f1val  
>       WIDGET_CONTROL, field2, GET_VALUE=f2val  
>  
>       if f1val ne curval then begin  
>           curval = f1val  
>           print, curval  
>           print, f2val  
>           if curval eq 'q' then quita = 1  
>       endif  
>       wait, 0.1  
>  
>   endwhile  
>  
>   WIDGET_CONTROL, tlb, /DESTROY  
>  
> END
```

>  
> When you run this program, the WIDGET\_TEXT field is editable and  
> behaves as expected, but the CW\_FIELD field is not editable. What is  
> going on? There must be something basic that I'm missing here.  
>  
> Thanks,  
> Mark

Why don't you want to use an event manager? That would be my first question. If you re-write it without that last part, it works fine:

PRO Example

```
tlb = Widget_Base(Column=1)

field1 = WIDGET_TEXT(tlb, /EDITABLE)

field2 = CW_FIELD(tlb, /FLOATING)

WIDGET_CONTROL, tlb, /REALIZE
XManager, 'example', tlb, /No_block

quita = 0

curval=""

WIDGET_CONTROL, field1, GET_VALUE=curval
```

END

I'm not an expert on this (I'm very new to widgets myself) but it seems like you have to do this properly. Apparently, as long as you are in the while loop and are using the wait, the cw\_field doesn't work. I can hazard a guess why that is. I have a suspicion that cw\_field isn't just a regular input box. It actually has some pre-processing before it allows anything to populate it's field - that's how it forces you to only input numeric values in the text box. I'm guessing that somehow the "infinite" while/wait loop you have going prevents it from executing this functionality and actually putting text into the input box. If so, I'm guessing you're simply stuck, and have to do it another way.

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Subject: Re: CW\_FIELD question  
Posted by [markb77](#) on Fri, 25 May 2007 18:35:46 GMT  
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The reason for not using an event manager is that I'm modifying a large piece of pre existing code and adding a few widgets to it. Re-writing in terms of processing "events" from the gui would be a major overhaul.

The text widget seems to work so I could just go with that, but I'm still wondering if there is a way to get either CW\_FIELD or David Fanning's FSC\_INPUTFIELD to work the way I'm trying to use them.

For those familiar with Labview, what I want is simply a numeric input control for which you can simply read it's value at any point in the program.

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Subject: Re: CW\_FIELD question  
Posted by [David Fanning](#) on Fri, 25 May 2007 18:59:06 GMT  
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markb77@gmail.com writes:

> The text widget seems to work so I could just go with that, but I'm  
> still wondering if there is a way to get either CW\_FIELD or David  
> Fanning's FSC\_INPUTFIELD to work the way I'm trying to use them.

Well, I don't think so, but I'm having a hell of a time thinking why not. :-(

Cheers,

David

--

David Fanning, Ph.D.  
Fanning Software Consulting, Inc.  
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>  
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

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Subject: Re: CW\_FIELD question  
Posted by [markb77](#) on Fri, 25 May 2007 19:30:49 GMT  
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Thanks for the responses!

Does it have something to do with the /NO\_BLOCK keyword to Xmanager?

Let's say I wanted to include an event handler to handle events from these input fields only, leaving the rest of my code unchanged. What would that look like? Would I read the contents of the fields in the event manager and write them into a common block variable that my code could read? I still don't see where the necessity for an event manager comes in here - why can't I simply read the values of the fields from within my code using WIDGET\_CONTROL, field2, GET\_VALUE=value?

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Subject: Re: CW\_FIELD question  
Posted by [Jean H.](#) on Fri, 25 May 2007 19:40:15 GMT  
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markb77@gmail.com wrote:

> Thanks for the responses!  
>  
> Does it have something to do with the /NO\_BLOCK keyword to Xmanager?  
>  
> Let's say I wanted to include an event handler to handle events from  
> these input fields only, leaving the rest of my code unchanged. What  
> would that look like? Would I read the contents of the fields in the  
> event manager and write them into a common block variable that my code  
> could read? I still don't see where the necessity for an event  
> manager comes in here - why can't I simply read the values of the  
> fields from within my code using WIDGET\_CONTROL, field2,  
> GET\_VALUE=value?  
>

Use a pointer instead of a common block. You can create the pointer in the main program, store it as the Uvalue of the text field, modify its content in the event handler and read it back in your main program...

Jean

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Subject: Re: CW\_FIELD question  
Posted by [David Fanning](#) on Fri, 25 May 2007 19:40:43 GMT  
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markb77@gmail.com writes:

> Does it have something to do with the /NO\_BLOCK keyword to Xmanager?

I don't know what it has to do with. I've been consulting my Ouija board for the last half hour, without result. :-(

> I still don't see where the necessity for an event  
> manager comes in here - why can't I simply read the values of the  
> fields from within my code using WIDGET\_CONTROL, field2,  
> GET\_VALUE=value?

Good question. I just don't know. Karl!?

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

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Subject: Re: CW\_FIELD question

Posted by [markb77](#) on Sun, 27 May 2007 01:46:41 GMT

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The programming weirdness continues! I am forging ahead with my non-standard and completely upside down IDL programming style - ie. Widget programs without a separate event handler. I have figured out a couple of things about querying the state of TEXT and BUTTON widgets without relying on events generated by them.

Check out this example:

PRO Example

```
tlb = Widget_Base(Column=1)

field1 = WIDGET_TEXT(tlb, /EDITABLE)

field2 = FSC_INPUTFIELD(tlb)

button_wid = CW_BGroup(tlb, 'SET', /Col, /NonExclusive, Set_Value
= 1)

WIDGET_CONTROL, tlb, /REALIZE
XManager, 'example', tlb, /NO_BLOCK

quita = 0
```

```

while quita ne 1 do begin

    event2 = WIDGET_EVENT(button_wid, /NOWAIT)
    event1 = WIDGET_EVENT(tlb, /NOWAIT)

    WIDGET_CONTROL, field1, GET_VALUE=f1val

    f2val = field2->Get_Value()

    WIDGET_CONTROL, button_wid, GET_VALUE=bval

    print, f1val, f2val, bval

    if f1val eq 'q' then quita = 1

    wait, .1

endwhile

WIDGET_CONTROL, tlb, /DESTROY

END

```

This fixes the earlier problem I had with not being able to read out the value of FSC\_INPUTFIELD, and a later problem I encountered where I could not read out the current state of a checkbox button that I had created with CW\_BGROUP.

It seems that the presence of the calls to WIDGET\_EVENT are necessary for both of these things to work. Without the second call to WIDGET\_EVENT we are unable to query the FSC\_INPUTFIELD value. Without the first call, we are unable to query the state of the button.

There's more! Reverse the order of the calls to WIDGET\_EVENT and it doesn't work!

I cannot convince myself that switching to a traditional event handler application structure is worth the work. I would have to "drag around" hundreds of variables in some sort of application state structure or common block. It certainly could be done, but wouldn't it be easier if we could just query the values of these widgets without the necessity of some kind of event handler, which it seems is the current situation? Notice that I'm not using the events for anything in the code, but the WIDGET\_EVENT call is necessary just to get the subsequent WIDGET\_CONTROL.. GET\_VALUE queries to work.

Great fun.  
Mark

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