Subject: Re: Tracking Cursor in Object Graphics Draw Widgets
Posted by Antonio Santiago on Fri, 21 Jan 2005 17:28:21 GMT
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Hi,

I dont know if I understand so well your question.

I am supossing you are refering to have 2 widget draw with a pair of
"photos" and select some points on one implies select the same points in
the other.

(I hope i am right with my suposition because this message is a bit
sticky :))

Some time ago I create a little "EventAction" class that can add signals
(events) and actions to the objects.
Supossing you have a new object graphics class that show an image and
select some points you can use "EventAction" to emit the signal
"point_select" and configure a method of your class to receive the event.
Then you can connect one object with the other using signals (events).

For example, i have a class that shows a "photo" and permits me to
select a region. It inherits from my "EventAction" class and:

```
FUNCTION SelectMap::Init, parent, _EXTRA=extra

    ;;Initilize superclass
    result = self->EventAction::Init()

    IF NOT KEYWORD_SET(parent) THEN RETURN, 0

    ;;Create widget and object hieriarchy.
    wBase = WIDGET_BASE(parent)
    wDraw = WIDGET_DRAW(wBase, GRAPHICS_LEVEL=2, /EXPOSE_EVENTS, $
                /BUTTON_EVENTS, /MOTION_EVENTS, _EXTRA=extra, $
                UVALUE={class_name: 'SelectMap', object: self, $
                    handler: 'EventHandler'})

    self.parent_id = parent
    self.base_id = wBase
    self.widget_id = wDraw
```

```
      ;;Register the 'event' of the class
      self->AddEvent, 'POINT_SELECT'
      self->AddEvent, 'POINT_UNSELECT'
      self->AddEvent, 'LINE_SELECTION'
      self->AddEvent, 'SQUARE_SELECTION'
      self->AddEvent, 'MOTION'

      self->Initialize

      RETURN, 1
END
```

I initialize some signals (events) in the class.
Later in the method that handles the events i emit the corresponding events. For example when I select a point:

```
      self->EmitEvent, 'POINT_SELECT', $
                  EVENT_STRUCT={x: values[0], y: values[1]}
```

Then all method object, function or procedures that are connected with that signal are executed.

You can use the same mechanism to "connect" your classes without coupling them. One class dont known anything of the others that are listening it.

Well, this is a link to my home page:
" http://asantiago.gentelibre.org/index.php/archives/2004/11/1
8/a-signal-mechanism-for-objects-in-idl/".
It has an example how to use. It is not very object oriented but at work i use it between object and helps me very often.

Bye.
Antonio

> Object Graphics Gurus,
>
> Suppose I have two object graphics draw widgets in a program.
> And suppose I wanted to move the cursor in one window and
> have it mirrored in the other. Anybody know how to do that
> in object graphics?
>
> Cheers,
>

> David
>

Subject: Re: Tracking Cursor in Object Graphics Draw Widgets
Posted by David Fanning on Fri, 21 Jan 2005 17:41:25 GMT
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Antonio Santiago writes:

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> sticky :))

Alas, what I was referring to was the object graphics
equivalent of TVCRS. This turns out to be an old feature
request that has never been implemented. To work around it,
you usually define some kind of "symbol" object to use as
a cursor, and you move that around in both windows, using
whatever event or message passing capability you have built
into your objects to communicate with one another.

It's a bit more work than I was hoping for, but ... that's
the nature of object graphics. :-)

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/

Subject: Re: Tracking Cursor in Object Graphics Draw Widgets
Posted by Robert Barnett on Mon, 24 Jan 2005 22:57:53 GMT
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Indeed, it does require a little more work if you're doing it as a once
off. There are two ways I see:

1) Putting IDLgrWindow into a Widget_Draw and doing event processing using widgets to emulate tvcrs().
2) Rendering onto IDLgrBuffer and displaying the image and cursor using tv, thus you can use tvcrs(). However, there may be signifcant performance issues.

In practise most of my applications are in a Widget_Base and have event loops set up. Thus, most of the work required for option 1 would be done anyway :)

Robbie

David Fanning wrote:

> Antonio Santiago writes:
>
>
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> David
>
>

--

nrb@

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