
Subject: Re: draw window mouse events

Posted by [davidf](#) on Thu, 27 Apr 2000 07:00:00 GMT

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Rick Towler (rtowler@u.washington.edu) writes:

> I have been trying to implement middle and third button events in my
> draw widget in much the same way as in the IDL demo d_objworld2.pro. I
> have not found it easy to understand how everything happens in this demo
> program.
>
> I am interested in getting one of these buttons to utilize the TRANSLATE
> feature of the trackball object so I can translate my models. I did
> have the left button transforming the model but I have broken that in my
> quest to understand this whole process which obviously I don't since I
> can't get it working again.
>
> I have the events getting into the correct handling loops. That is,
> clicks and motion trigger print statements in my loops, but I cant seem
> to get the updates from the trackball object. Every call to
> oTrack->update returns EQ 0.
>
> Hints and/or pointers to examples that are a wee bit simpler than
> d_objworld2 are much appreciated.

The problem here is this:

```
> 'MOTION': BEGIN  
>   print,'Motion with btndown='+string(state.btndown)  
>   IF (state.btndown) AND (bHaveTransform) THEN $  
>   state.oDWindow->Draw,state.oView  
> END
```

You are not **doing** anything with motion events except displaying the same view over and over again. Pretty dull.

What you need here is a CASE statement that allows you to rotate with the LEFT button, translate with the RIGHT, etc.

I'm not feeling well enough to write an example today, and looking at RSI code even when I feel well is almost too much, but I'm guessing if you go look at that d_objworld2 example you will find a LOT more code in the MOTION section. :-)

Cheers,

David

--

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Subject: Re: draw window mouse events

Posted by [Mark Hadfield](#) on Fri, 28 Apr 2000 07:00:00 GMT

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"Rick Towler" <rtowler@u.washington.edu> wrote in message
news:39087CCA.263A52DC@u.washington.edu...

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Well if you like you can look at my MGHgrWindow class:

http://katipo.niwa.cri.nz/~hadfield/gust/software/idl/mghgrwindow__define.pro

It calls a number of other routines, all of which you can find in

http://katipo.niwa.cri.nz/~hadfield/gust/software/idl/MARKS_ROUTINES.tar.gz

MGHgrWindow provides for a range of manipulations with the mouse (rotate, translate, scale). In particular see methods EventTrack, EventScale and EventTranslate. But I don't guarantee that its code is any simpler or easier to understand than the IDL demo.

Looking through the code again, I note that I have used the Trackball object for rotation only. Scaling and translation are done through calls to the model's Translate and Scale methods. The basic logic for handling mouse events is pretty simple:

Press events

- Reduce window's QUALITY for faster redraws
- Store event.x and event.y (say as x0, y0)

Motion events

- Scale/translate according to values of [event.x-x0, event.y-y0]
- Set x0 = event.x, y0 = event.y
- Draw

Release events

- Restore window quality
- Draw
- Forget x0 & y0

Hope this helps

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