Subject: Widgets and Animation Loops in IDL 5.0 Posted by drphys on Fri, 23 Jul 1999 07:00:00 GMT

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Hi,

I am using IDL 5.0 on a DEC Alpha. I am animating a 3D plot of a particle trajectory by incrementing the "az" variable and then replotting in a loop. I decided to add widgets to control the speed of rotation and the angle about the x axis "ax". I have found this to be unworkable so far because once the code enters the loop the widgets do not issue events, so my event handlers do not get called. This was easily fixed by using widget control commands inside the loop and using sliders to control the speed and x angle, however, I can not find a method to exit the loop, except for possibly adding a slider that could turn it off. The solution seemed to be a toggle button that could be examined using widget_control during the loop, but I have found no way to examine the state of the toggle button. Also while I am at it, I am new to 3D plotting using "plots" to do a trajectory plot. There seems to be no way to get axis on the screen. I have tried the axis command and can only get either one axis, or a white blotch (this seems random as I have not touched that line of code for a while). So help on any of the above will be greatly appreciated.

Thank you, Shawn

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Subject: Re: Widgets and Animation Loops in IDL 5.0 Posted by drphys on Mon, 26 Jul 1999 07:00:00 GMT View Forum Message <> Reply to Message

thank you!
I believe that this is what I need.
Shawn

In article <7ng6aq\$s6q\$1@clam.niwa.cri.nz>,
"Mark Hadfield" <m.hadfield@niwa.cri.nz> wrote:
> <drphys@my-deja.com> wrote in message
news:7na6kq\$q9b\$1@nnrp1.deja.com...

>> Hi.

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- >> sliders to control the speed and x angle, however, I can not find a
- >> method to exit the loop, except for possibly adding a slider that could
- >> turn it off.

>

- > Do not use a for or while loop for an animation. Instead, set up your code
- > so that
- > each time a frame is drawn, a widget timer event is set with

>

> WIDGET_CONTROL, TIMER=delay

>

- > (where delay can be zero). Then the widget event handler catches the timer
- > event.
- > draws the next frame, and resets the timer, etc. The loop can be terminated
- > by instructing
- > the event handler to ignore timer events. This is how CW_ANIMATE does it.
- > Information about the current state of the animation (current frame, which
- > direction
- > we're going in, where the end is & what to do when we get there) can be
- > stored in a
- > structure stored attached to one of the widget's UVALUE fields or, better,
- > in an object.

>

- > I have found object graphics particularly good for animations, and I have
- > written a
- > set of animator classes, which illustrate the above technique.

>

> See my Web page:

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

- > In particular the MGHgrAnimation and MGHgrAnimator classes and the
- > MGH_EXAMPLE_ANIMATOR routine. But you'll need version 5.2 to run them.

>

> ---

- > Mark Hadfield m.hadfield@niwa.cri.nz
- > National Institute for Water and Atmospheric Research
- > PO Box 14-901, Wellington, New Zealand

> >

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Subject: Re: Widgets and Animation Loops in IDL 5.0 Posted by drphys on Mon, 26 Jul 1999 07:00:00 GMT

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thank you!

This all looks very goood. I will try implementing it later today. Shawn

In article <MPG.120253cba46679d7989844@news.frii.com>, davidf@dfanning.com (David Fanning) wrote:

> Shawn (drphys@my-deja.com) writes:

>

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>

- > You can look at my XMOVIE program for the proper way to
- > do an animation in a widget program. It demonstrates how
- > to write the program so that other events can be processed,

> so you can stop the animation, etc. > http://www.dfanning.com/programs/xmovie.pro > >> Also while I am at it, I am >> new to 3D plotting using "plots" to do a trajectory plot. There >> to be no way to get axis on the screen. I have tried the axis command >> and can only get either one axis, or a white blotch (this seems random >> as I have not touched that line of code for a while). So help on any of >> the above will be greatly appreciated. > Here is an article that shows you exactly how to do a particle trajectory with axes: > http://www.dfanning.com/tips/particle 3d.html > Cheers, > > David > David Fanning, Ph.D. > Fanning Software Consulting > Phone: 970-221-0438 E-Mail: davidf@dfanning.com > Coyote's Guide to IDL Programming: http://www.dfanning.com/

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Subject: Re: Widgets and Animation Loops in IDL 5.0 Posted by Mark Hadfield on Mon, 26 Jul 1999 07:00:00 GMT View Forum Message <> Reply to Message

<drphys@my-deja.com> wrote in message news:7na6kq\$q9b\$1@nnrp1.deja.com...

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Mark Hadfield m.hadfield@niwa.cri.nz National Institute for Water and Atmospheric Research PO Box 14-901, Wellington, New Zealand