Subject: Re: convert_coord problem
Posted by Bernard Puc on Thu, 27 Jul 2000 07:00:00 GMT
View Forum Message <> Reply to Message

I suspect that your problem lies with the fact that you have several graphics windows. The convert_coord function uses the current output device parameters to do the conversion to/from device or data coordinates. The straightforward solution is to store the following system variables !P, !X, !Y, !Z after you have generated your graphics plot from which you are getting the mouse position. Then, copy the stored variables back to the system variables whenever you need to convert the mouse pointer again.

This may not be especially clear explanation - perhaps one of the more eloquent readers of the group can clarify, if needed.

Klaus Scipal wrote:
>
> Hi
>
> I have a widget with several graphic windows. On of it returns the
> co-ordinates of the mouse button if pressed. These co-ordinates are then
> converted from device to data (longitude, latitude) using the convert_coord
> routine, and some data is plotted in the other windows. Now comes my
> problem: the convert_coord routine gives the correct co-ordinates only in
> its first call. when I try to convert another pair of co-ordinates the
> result is flawed. What can be wrong???
>
> Klaus
>
> p.s.: I use IDL 5.2 under Windows NT

--
-Bernard Puc
AETC,INC. (http://www.aetc.com)
1225 Jefferson Davis Hwy, Suite 800
Arlington, VA 22202
(703) 413-0500

Subject: Re: convert_coord problem
Posted by Ben Tupper on Thu, 27 Jul 2000 07:00:00 GMT
View Forum Message <> Reply to Message

Hello,

it sounds like you are using direct graphics.

The CONVERT_COORD function makes the conversions using the scaling factors in !X .Sand !Y.S from the _most_recent_ plot. So the conversion will work properly in the most recent plot, but it will produce garbage for any of the earlier ones. You could do a couple of things to get around this limitation.

(1) Save the values !X.S and !Y.S for each plot window (these are originally stored after the graphic command that sets up the coordinate system for each window.)

```
Win1_XS = !X.S   &   Win1_YS = !Y.S
Win2_XS = !X.S   &    Win2_YS = !Y.S
```

Later, when a mouse event arrives, assign the appropriate values to !X.S and !Y.S and make the neccessary conversions. So if an event arrives from window 2

```
!X.S = WidgetInfoStructure.Win1_XS
!Y.S = WidgetInfoStructure.Win2_YS

 DataCoord = CONVERT_COORD(Event.X, Event.Y,/Device,/To_Data)
```

(2) You could save the values of !X.S and !Y.S and write your own conversion routine using the conversion formulas described in the online help. (See Coordinate Conversion for Direct Graphics)

(3) You might check out Liam Gumley's Frame Tools (you can find them through David Fanning's links web page.) I don't know if these tools will solve your problem, but it sounds like the might help.

Ben

Klaus Scipal wrote:

> Hi
>
> I have a widget with several graphic windows. On of it returns the
> co-ordinates of the mouse button if pressed. These co-ordinates are then
> converted from device to data (longitude, latitude) using the convert_coord
> routine, and some data is plotted in the other windows. Now comes my
> problem: the convert_coord routine gives the correct co-ordinates only in
> its first call. when I try to convert another pair of co-ordinates the
> result is flawed. What can be wrong???
>
> Klaus
>
> p.s.: I use IDL 5.2 under Windows NT

--
Ben Tupper
Bigelow Laboratory for Ocean Science
West Boothbay Harbor, Maine
btupper@bigelow.org
note: email address new as of 25JULY2000
