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Subject: Re: using convert\_coord with multiple plotting windows

Posted by [R.Bauer](#) on Tue, 11 Nov 2003 06:42:37 GMT

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Dear James,

I remember this was discussed more as three times in the past.

<http://groups.google.de/groups?hl=de&lr=&ie=ISO-8859-1&q=savesysvar+group%3Acomp.lang.idl-pvwave&btnG=Google+Suche&meta=group%3Dcomp.lang.idl-pvwave>

Here is a short description what happens and one solution.

If you do a plot in a window the coordination transformation matrix is stored in several systemvariables. If you have one output window all is fine because always the last coordination transformation matrix is the actual one which is used for the current window.

If you have more windows then the systemvariables stored only the last coordination transformation matrix for the last plot in the last created used window. This is the situation you are recognizing now. This is all right.

What to do?

store the system variables by savesysvar for each plotdevice window after the coordination are defined

[http://www.fz-juelich.de/icg/icg-i/idl\\_icglib/idl\\_source/idl\\_html/dbase/download/savesysvar.tgz](http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_source/idl_html/dbase/download/savesysvar.tgz)

Then if you switch back to the window restore the systemvariables by

[http://www.fz-juelich.de/icg/icg-i/idl\\_icglib/idl\\_source/idl\\_html/dbase/download/restsysvar.tgz](http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_source/idl_html/dbase/download/restsysvar.tgz)

More about our library you'll find here:

[http://www.fz-juelich.de/icg/icg-i/idl\\_icglib/idl\\_lib\\_intro.html](http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_lib_intro.html)

best regards

Reimar

James wrote:

- > I have a widget that contains 2 draw widgets, say plot1 and plot2,
- > (used for x-y data plotting). The user can select a rubber band box
- > to choose a zoom window on either draw widget.
- >
- > When the user chooses a rubber band box, the box coordinates are
- > returned in device units (event.x and event.y). To achieve the zoom,
- > I use convert\_coord to convert device units to data units and then

> replot with new xrange and yrange keywords.  
>  
> However, convert\_coord "can only provide valid results if a window is  
> open and current." (IDL 5.5 doc)  
>  
> This means that if plot2 is created after plot1, then convert\_coord  
> will only be valid for rubber band boxes drawn on plot2.  
>  
> I'd like the rubber band box to be valid in both plotting windows,  
> regardless of the order plot generation!  
>  
> Is there a way to have convert\_coord refer to the device/data  
> coordinates of a previous plot, or to refresh the device/data  
> conversion buffer (if that's the way it works)?  
>  
> Alternatively, is there a way to get the mouse event to return data  
> coordinates (there's nothing that I've seen in the doc that suggests  
> yes)? Or some other way to get xy ranges in data units for two (or  
> more) plots?  
>  
> Thanks very much in advance,  
> James

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a IDL library at ForschungsZentrum Juelich  
[http://www.fz-juelich.de/icg/icg-i/idl\\_icglib/idl\\_lib\\_intro.html](http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_lib_intro.html)

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