Subject: Re: ROI on map
Posted by David Fanning on Mon, 18 Sep 2006 17:55:42 GMT

catwithhat writes:

> Does anyone have a routine that allows you to define a region of
> interest. ROI on a map projection? (direct graphics). For example,I
> would define a map project, overlay a contour plot and then want to
> interactively select region. The routine would return the vertices of
> the perimeter of the polygon.

And the problem is....what!?

This is no different from drawing any other line on
a draw widget. Convert your positions (returned in
DEVICE coordinates) to your map coordinates with
CONVERT_COORD. Just be sure you save your data
coordinate space (!X, !Y, and !MAP) after you
draw your map so you can restore it before you
do the coordinate conversion.

This article might help:

   http://www.dfanning.com/widget_tips/line_on_image.html

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: ROI on map
Posted by catwithhat on Tue, 19 Sep 2006 05:29:46 GMT

David,

Thanks, my widget programming is a bit rusty, so I was looking at the
DEFROI function and was looking for something equivalent for a
non-image "direct" graphic.
I think I can work from your example though, thanks! When you say
restore coordinate space you mean that I reset the system variables
!X,!Y and !MAp to the saved values by

simply setting:
IDL> saved_map= !MAP
IDL> e.g. plot,x,y
IDL> !MAP=saved_map
?
Axel

David Fanning wrote:
> catwithhat writes:
>
>> Does anyone have a routine that allows you to define a region of
>> interest. ROI on a map projection? (direct graphics). For example,I
>> would define a map project, overlay a contour plot and then want to
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> Cheers,
>
> David
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> --
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming: http://www.dfanning.com/
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: ROI on map
Posted by David Fanning on Tue, 19 Sep 2006 11:56:12 GMT
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Axel writes:

> Thanks, my widget programming is a bit rusty, so I was looking at the
> DEFROI function and was looking for something equivalent for a

> non-image "direct" graphic.

Well, widgets usually use "direct" graphics. At least mine
do.

I suppose you could do something like this in a regular
IDL window, but the code will be so convoluted and ugly
that it hardly seems worth it to me. Your widget programming
skills don't have to be very spectacular to make something
like this work, though. Something very, very basic is
probably enough. :-)

> I think I can work from your example though, thanks! When you say
> restore coordinate space you mean that I reset the system variables
> !X,!Y and !MAp to the saved values by
> simply setting:
> IDL> saved_map= !MAP
> IDL> e.g. plot,x,y
> IDL> !MAP=saved_map

That's what I mean. (Although, usually in the reversed
order of this.)

```
  Plot, x, y
  bangX = !X
  bangY = !Y
```

Then, later in your program when you need to know this
data coordinate space is set up properly:

```
 !X = bangx
 !y = bangy
```

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
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Sepore ma de ni thui. ("Perhaps thou speakest truth.")