
Subject: Re: Problem with IDLgrROI and normalization.

Posted by [davidf](#) on Fri, 25 Feb 2000 08:00:00 GMT

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Erik Hummel (erik.hummel@philips.com) writes:

> In the program added an IDLgrPolyLine and IDLgrROI object are drawn. The
> results of the
> program is that only the IDLgrPolyLine is drawn. Important is that
> normalized coordinates are used,
> otherwise both objects are correctly drawn.
> What is wrong here?

I don't think there is anything wrong with **your** code.
I believe you have discovered a bug in the IDLgrROI
code. :-)

Here is an example. Two windows, produced with identical
code. However, the viewport rectangle in one window uses
a "device" coordinate system (0 to 500), whereas the
viewport rectangle in the second window uses a
"normalized" coordinate system (0 to 1). The ROI appears
in the first window, but not in the second.

I'll report this to RSI and see what they have to say.

Cheers,

David

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

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FUNCTION Normalize, range, Position=position

On_Error, 1

IF N_Params() EQ 0 THEN Message, 'Please pass range vector as argument.'

IF (N_Elements(position) EQ 0) THEN position = [0.0, 1.0] ELSE \$
 position=Float(position)
range = Float(range)

scale = [(((position[0]*range[1])-(position[1]*range[0])) / \$
 (range[1]-range[0]), (position[1]-position[0])/(range[1]-range[0]))]

```
RETURN, scale
END
```

```
PRO ROI_TEST
```

```
; Draw using viewport with device coordinates.
```

```
top_wid = Widget_Base(XSize = 500, YSize = 500, Title='Device
Coordinates')
```

```
draw_wid = Widget_Draw(top_wid, XSize = 500, YSize = 500,$
Graphics_Level = 2, Retain=2)
```

```
Widget_Control, top_wid, /REALIZE;
Widget_Control, draw_wid, Get_Value = window
```

```
view = Obj_New('IDLgrView', Color = [100, 100, 100])
view->SetProperty, Viewplane_rect = [0,0,500,500]
```

```
model = Obj_New('IDLgrModel')
view->Add, model
```

```
; The IDLgrROI Object.
```

```
gfxROI = OBJ_New('IDLgrROI', [50, 400, 400, 50, 50], $
[50, 50, 400, 400, 50], Color=[255,255,0])
```

```
model->Add, gfxROI
```

```
gfxROI->GetProperty, xrange=xrange, yrange=yrange
```

```
Print, 'XRange for Device Coordinates: ', xrange
```

```
Print, 'YRange for Device Coordinates: ', yrange
```

```
xs = Normalize(xrange, Pos=[50,400])
```

```
ys = Normalize(yrange, Pos=[50,400])
```

```
gfxROI->SetProperty, XCoord_Conv = xs, YCoord_Conv = ys
```

```
window->Draw, view
```

```
; Draw using veiwport with normalized coordinates.
```

```
top_wid = Widget_Base(XSize = 500, YSize = 500, $
XOffset=500, YOffset=0, Title='Normalized Coordinates')
```

```
draw_wid = Widget_Draw(top_wid, XSize = 500, YSize = 500,$
Graphics_Level = 2, Retain=2)
```

```
Widget_Control, top_wid, /REALIZE;
```

```
Widget_Control, draw_wid, Get_Value = window
```

```
view = Obj_New('IDLgrView', Color = [100, 100, 100])  
view->SetProperty, Viewplane_rect = [0,0,1,1]
```

```
model = Obj_New('IDLgrModel')  
view->Add, model
```

```
; The IDLgrROI Object.
```

```
gfxROI = OBJ_New('IDLgrROI', [50, 400, 400, 50, 50], $  
    [50, 50, 400, 400, 50], Color=[255,255,0])
```

```
model->Add, gfxROI
```

```
gfxROI->GetProperty, xrange=xrange, yrange=yrange
```

```
Print, 'XRange for Normalized Coordinates: ', xrange
```

```
Print, 'YRange for Normalized Coordinates: ', yrange
```

```
xs = Normalize(xrange, Pos=[0.1,0.8])
```

```
ys = Normalize(yrange, Pos=[0.1,0.8])
```

```
gfxROI->SetProperty, XCoord_Conv = xs, YCoord_Conv = ys
```

```
window->Draw, view
```

```
end
```
