Subject: cgImage abscissa values in axis feature
Posted by Petros Syntelis on Fri, 28 Mar 2014 17:45:55 GMT
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Hi all (and mostly David),

I find myself very often in need to put an image into a plot with axis that show some x and y abscissa values, like in the way we use the contour command,
cgcontour, data, x,y
In cgImage, i can do this by setting the limits xr=[min(x),max(x)], yr=[min(x),max(x)] in a plot.
This works ok for uniform x,y but doesnot work for non uniform x,y.
Also, if you want repeat this some times, its more trouble than to simply put the x,y abscissa values directly.

Is there a way i can put x and y vectors as values for axis? And if not, would it be too much to ask for this feture in another version of cgImage?

Cheers,
Petros

Subject: Re: cgImage abscissa values in axis feature
Posted by David Fanning on Fri, 28 Mar 2014 18:15:44 GMT
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Petros Syntelis writes:

> I find myself very often in need to put an image into a plot with axis that show some x and y abscissa values, like in the way we use the contour command,
> cgcontour, data, x,y
> In cgImage, i can do this by setting the limits xr=[min(x),max(x)], yr=[min(x),max(x)] in a plot.
> This works ok for uniform x,y but doesnot work for non uniform x,y.
> Also, if you want repeat this some times, its more trouble than to simply put the x,y abscissa values directly.
>
> Is there a way i can put x and y vectors as values for axis? And if not, would it be too much to ask for this feture in another version of cgImage?

Isn't the AXKEYWORDS keyword what you want? As far as I know you can configure the axes anyway you like with this keyword.

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.idlcoyote.com/

Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: cgImage abscissa values in axis feature
Posted by David Fanning on Fri, 28 Mar 2014 18:29:22 GMT
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David Fanning writes:

> Isn't the AXKEYWORDS keyword what you want? As far as I know you can
> configure the axes anyway you like with this keyword.

Or, if it is easier for you to use the cgContour or cgPlot commands,
that is easy, too:

```
cgImage, image, OPOSITION=opos, ...
cgContour, image, /nodata, /noerase, Position=opos, ...
```

Cheers,

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

Subject: Re: cgImage abscissa values in axis feature
Posted by Petros Syntelis on Fri, 28 Mar 2014 19:13:02 GMT
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Thanks for the quick reply David.

I was thinking more something like this:
Assume we have, x,y and data.
if we use
cgContour, data, x,y
we will get a plot with axis having the values of x,y

In cgImage, i was thinking like
cgImage, data, /axis, xabscissa=x, yabscissa=y

That would produce a similar result.
If somebody wants to plot many images with values on axis, this would be much faster and easier than
cgImage, data, /axis, xr=[min(x),max(x)], yr=[min(y),max(y)]

Cheers,

Petros

On Friday, March 28, 2014 6:29:22 PM UTC, David Fanning wrote:
> David Fanning writes:
>
>
>
>> Isn't the AXKEYWORDS keyword what you want? As far as I know you can
>
>> configure the axes anyway you like with this keyword.
>
>
>
> Or, if it is easier for you to use the cgContour or cgPlot commands,
>
> that is easy, too:
>
>
>
> cgImage, image, OPOSITION=opos, ...
>
> cgContour, image, /nodata, /noerase, Position=opos, ...
>
>
>
> Cheers,
>
>
>
> David
>
> --
>
> David Fanning, Ph.D.
>
> Fanning Software Consulting, Inc.
>
> Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
>
> Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: cgImage abscissa values in axis feature
Posted by David Fanning on Fri, 28 Mar 2014 19:28:01 GMT
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Petros Syntelis writes:

>
> Thanks for the quick reply David.
>
> I was thinking more something like this:
> Assume we have, x,y and data.
> if we use
> cgContour, data, x,y
> we will get a plot with axis having the values of x,y
>
> In cgImage, i was thinking like
> cgImage, data, /axis, xabscissa=x, yabscissa=y
>
> That would produce a similar result.
> If somebody wants to plot many images with values on axis, this would be much faster and easier than
> cgImage, data, /axis, xr=[min(x),max(x)], yr=[min(y),max(y)]

OK, now you have confused me. :-)

I thought you were looking for non-linear labeling of the axes. How does this suggestion produce non-linear axis labeling?

Are you just looking to save a few keystrokes? In other words, are you asking if I can let cgImage calculate the xrange from an X vector, and so forth? I suppose I could. If you put some cash into the Coyote Store, I suppose I might even want to. ;-)

Cheers,

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

Subject: Re: cgImage abscissa values in axis feature
Posted by Petros Syntelis on Fri, 28 Mar 2014 19:57:38 GMT
View Forum Message <> Reply to Message

Sorry for the confusion. The trick with the cgcontour solved my problem.

When i told you about
cgImage, data, /axis, xabscissa=x, yabscissa=y
meaning that the result would work for both uniform and non uniform x and y, without getting into more trouble, as the
cgcontour, data, x,y
does already

Of course
cgImage, data, /axis, xr=[min(x),max(x)], yr=[min(y),max(y)]
and
cgImage, data, /axis, xabscissa=x, yabscissa=y
would be equivalent only for uniform grid!

Now in terms of the keystrokes, the in uniform grid, i think
cgImage, data, /axis, xa=x, ya=y
is better than
cgImage, data, /axis, xr=[min(x),max(x)], yr=[min(y),max(y)]

And in the non uniform grid
cgImage, data, /axis, xa=x, ya=y
is better than
cgContour, data, /nodata, /noerase, OPosition=opos
cgImage, image, OPOSITION=opos, /noerase,/over
cgContour, data, /nodata, /noerase, Position=opos

Both are more simple and more intuitive. At least for me!

From your amazing work concerning usability and simplicity in idl graphics, I assume that a fan of simplicity such as yourself would like to get new ideas on how to improve the usability of his software!

Cheers,
Petros

On Friday, March 28, 2014 7:28:01 PM UTC, David Fanning wrote:
> Petros Syntelis writes:
>
>
>
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>> Thanks for the quick reply David.
>
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>> I was thinking more something like this:

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>> we will get a plot with axis having the values of x,y
>
>>
>
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>> cgImage, data, /axis, xabscissa=x, yabscissa=y
>
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>
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>
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>
>> cgImage, data, /axis, xr=[min(x),max(x)], yr=[min(y),max(y)]
>
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> this suggestion produce non-linear axis labeling?
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> Are you just looking to save a few keystrokes? In other words, are you
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> David
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> David Fanning, Ph.D.
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> Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: cgImage abscissa values in axis feature
Posted by David Fanning on Fri, 28 Mar 2014 20:28:26 GMT
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Petros Syntelis writes:

> Sorry for the confusion. The trick with the cgcontour solved my problem.

Really!?

> When i told you about
> cgImage, data, /axis, xabscissa=x, yabscissa=y
> meaning that the result would work for both uniform and non uniform x and y, without getting into more trouble, as the
> cgcontour, data, x,y
> does already

Can you give me an example of x and Y vectors that "solve" this problem
for you with cgContour? Apparently I don't understand what you mean,
because I don't see how this can apply to cgImage in both the uniform
and non-uniform cases.

> Of course
> cgImage, data, /axis, xr=[min(x),max(x)], yr=[min(y),max(y)]
> and
> cgImage, data, /axis, xabscissa=x, yabscissa=y
> would be equivalent only for uniform grid!

I get this.

> Now in terms of the keystrokes, the in uniform grid, i think
> cgImage, data, /axis, xa=x, ya=y
> is better than

> cgImage, data, /axis, xr=[min(x),max(x)], yr=[min(y),max(y)]

You are probably right, but most of the images I work with are map projected images from satellites and it is extraordinarily easy to get X and Y ranges from the coordinate objects associated with these images.

> And in the non uniform grid
> cgImage, data, /axis, xa=x, ya=y
> is better than
> cgContour, data, /nodata, /noerase, OPosition=opos
> cgImage, image, OPOSITION=opos, /noerase,/over
> cgContour, data, /nodata, /noerase, Position=opos

I really fail to see how this works with a non-uniform grid. You don't want pixel values to be stretched, do you?

> Both are more simple and more intuitive. At least for me!

Yes, I can believe that, although I would be hard pressed to come up with vectors for the images I work with.

> From your amazing work concerning usability and simplicity in idl graphics, I assume that a fan of simplicity such as yourself would like to get new ideas on how to improve the usability of his software!

Let me tell you a story.

There is a trail near my house on a creek. I've been walking it regularly for the past month or so, and I've noticed it is totally trashed out. So, when I want a break from work I go down there with a trash bag and pick up the trash. In two weeks, I've carried about 50 pounds of trash home from a maybe a half mile stretch of trail.

This is a well used trail, so maybe 150 people have seen me picking up trash. Three people have thanked me. The rest give me a wide berth, assuming, probably, that I am doing community service for the Sheriff.

Yesterday, when I was walking on the trail (pretty clean now!) I noticed something new. People have noticed that *someone* is cleaning up the trail, so they are leaving their little bags of dog shit near a trail marker so I can pick those up, too.

I tell you this story because there are days, sometimes weeks, when I feel incredibly taken advantage of. I've lost my spiritual mojo, you could say. This is one of those weeks.

Cheers,

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

Subject: Re: cgImage abscissa values in axis feature
Posted by Petros Syntelis on Fri, 28 Mar 2014 21:09:36 GMT
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Well i caused much confusion and this wasn't my intent.
I don't need strch of pixel or things like that. Forget about the non-uniform grid.
I was talking about non uniform vectors in the sense of
x=findgen(10)
cgcontour, data, x^2, alog10(x)
Nothing more than that. Sorry for the trouble i caused you, because clearly i couldn't get you to understand what i was saying, as i was saying it wrong!

I use images from solar observatories, where every data set comes with a solar_x and solar_y vector.
In the last years I've made my own wrapper programs of tv about plotting imaging, or use astrolib routines, but the more i use coyote library the more i want to use it fully, without making wrapper for it. This is why i discussed about intuitive and simple things.

Now about the previous discussion with the cgImage, in general, i think that an axis goes with a vector that defines it, so this is what i was referring as intuitive.

Besides that cgImage discussion, by no means I did not mean to offend you or to make you upset by this conversation.
After all, if you weren't involved with idl graphics, everybody dealing with IDL would have to curse daily 20 times more the people who designed idl graphics in the first place, and feel 20 times more miserable trying to do the simplest thing.
I personally cannot work without your work, which i admire greatly. And that is why the more i use it, the more people i try to persuade to use it.
That is the reason i post about bugs i find etc. I like it see it becoming even better! It feels like posting in opensource project forums!

I dont know if i sounded ironic telling you "From your amazing work concerning usability and simplicity in idl graphics, I assume that a fan of simplicity such as yourself would like to get new ideas on how to improve the usability of his software!"

I honestly believe every word of it, and i think the above as a compliment.

Regards,
Petros

On Friday, March 28, 2014 5:45:55 PM UTC, Petros Syntelis wrote:
> Hi all (and mostly David),
>
>
>
> I find myself very often in need to put an image into a plot with axis that show some x and y abscissa values, like in the way we use the contour command,
>
> cgcontour, data, x,y
>
> In cgImage, i can do this by setting the limits xr=[min(x),max(x)], yr=[min(x),max(x)] in a plot.
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>
> Also, if you want repeat this some times, its more trouble than to simply put the x,y abscissa values directly.
>
>
>
> Is there a way i can put x and y vectors as values for axis? And if not, would it be too much to ask for this feture in another version of cgImage?
>
>
>
> Cheers,
>
> Petros

Subject: Re: cgImage abscissa values in axis feature
Posted by David Fanning on Fri, 28 Mar 2014 22:22:36 GMT
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Petros Syntelis writes:

> Well i caused much confusion and this wasn't my intent.
> I don't need strch of pixel or things like that. Forget about the non-uniform grid.
> I was talking about non uniform vectors in the sense of
> x=findgen(10)
> cgcontour, data, x^2, alog10(x)
> Nothing more than that. Sorry for the trouble i caused you, because clearly i couldn't get you to understand what i was saying, as i was saying it wrong!

Thanks, Petros. After a walk (on a clean trail!) and your note, I feel
restored. I'll see what I can do about cgImage. ;-)

Cheers,

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

Subject: Re: cgImage abscissa values in axis feature
Posted by David Fanning on Tue, 01 Apr 2014 14:40:24 GMT
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Petros Syntelis writes:

> Is there a way i can put x and y vectors as values for axis? And if not, would it be too much to ask for this feture in another version of cgImage?

Done. You can find the program here:

http://www.idlcoyote.com/programs/cgimage.pro

Cheers,

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

Subject: Re: cgImage abscissa values in axis feature
Posted by Petros Syntelis on Mon, 07 Apr 2014 13:06:39 GMT
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David thank you very very much!

On Tuesday, April 1, 2014 3:40:24 PM UTC+1, David Fanning wrote:
> Petros Syntelis writes:
>
>
>
>> Is there a way i can put x and y vectors as values for axis? And if not, would it be too much to ask for this feture in another version of cgImage?
>
>

> Done. You can find the program here:
>
>
>
> http://www.idlcoyote.com/programs/cgimage.pro
>
>
>
> Cheers,
>
>
>
> David
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>
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Subject: Re: cgImage abscissa values in axis feature
Posted by Petros Syntelis on Mon, 07 Apr 2014 13:16:51 GMT
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Hey David, I think there is something funky going on with the axis color. I did

```
loadct,0
im=cgdemodata(4)
x=findgen(256)
cgimage, im,/axis
```

and

```
cgimage, im,/axis, xv=x,yv=v
```

and in both cases the color of the axis is either white or something different.

Cheers,
Petros

On Monday, April 7, 2014 2:06:39 PM UTC+1, Petros Syntelis wrote:

> David thank you very very much!
>
>
>
> On Tuesday, April 1, 2014 3:40:24 PM UTC+1, David Fanning wrote:
>
>> Petros Syntelis writes:
>
>>
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>>
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>> David

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Subject: Re: cgImage abscissa values in axis feature
Posted by David Fanning on Mon, 07 Apr 2014 13:55:53 GMT
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Petros Syntelis writes:

> Hey David, I think there is something funky going on with the axis color. I did
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> loadct,0
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> cgimage, im,/axis
>
> and
>
> cgimage, im,/axis, xv=x,yv=v
>
> and in both cases the color of the axis is either white or something different.

Yeah, don't know. I don't see anything funky. Did you update your Coyote Library or just cgImage? What kind of computer?

Cheers,

David
--

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

Subject: Re: cgImage abscissa values in axis feature
Posted by Petros Syntelis on Mon, 07 Apr 2014 16:06:54 GMT
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I've downloaded the whole library and replaced the old one on my computer. My computer runs Mac OS X 10.8.5. I've restarted idl and the whole computer also!

The funny thing is that almost every time i run the cgimage command i get a different axis color. Also, If i run create a cgdispaly window it resolves partly the problem
So, this code:
!p.multi=[0,5,5]
cgdisplay, 600,400
for i=0,24 do cgimage, im,xv=x,yv=x,/axis
!p.multi=0

creates a series of plots where the first 4 plots have black axis and the rest have white axis.

This code, on the other hand,
!p.multi=[0,5,5]
for i=0,24 do cgimage, im,xv=x,yv=x,/axis
!p.multi=0

creates axis with all sorts of different colors. And the colors change randomly every time i run the for loop!
Also, when i tried to take a snapshot
snap=cgSnapshot(file='snaphot.png')
The resulting png file have colored vertical bars, like an old television that can't get signal..

What have i done??

On Monday, April 7, 2014 2:55:53 PM UTC+1, David Fanning wrote:
> Petros Syntelis writes:
>
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> Yeah, don't know. I don't see anything funky. Did you update your Coyote
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Subject: Re: cgImage abscissa values in axis feature
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Petros Syntelis writes:

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> Also, when i tried to take a snapshot
> snap=cgSnapshot(file='snaphot.png')
> The resulting png file have colored vertical bars, like an old television that can't get signal..
>
> What have i done??

Oh, my gosh! Bought the wrong computer, it sounds like. ;-)

Can you start IDL up fresh and give me the results of this command:

```
IDL> Help, /Device
```

Also, what version of IDL is this?

Cheers,

David

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

Subject: Re: cgImage abscissa values in axis feature
Posted by Petros Syntelis on Mon, 07 Apr 2014 16:15:58 GMT
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How much i would like the good old "hitting the computer" could move a cable or something and fix the problem :p

This is the result of Help, /Device

IDL> help, /Device
Available Graphics Devices: CGM HP LJ NULL PCL PRINTER PS REGIS TEK X Z
Current graphics device: X
   Server: X11.0, The X.Org Foundation, Release 11404000
   Display Depth, Size: 24 bits, (1280,778)
   Visual Class: TrueColor (4)
   Bits Per RGB: 8 (8/8/8)
   Physical Color Map Entries (Emulated / Actual): 256 / 256
   Colormap: Private, 16777216 colors. Translation table: Enabled
   Graphics pixels: Combined, Dither Method: Ordered
   Write Mask: 16777215 (decimal) ffffff (hex)
   Graphics Function: 3 (copy)
   Current Font: <default>, Current TrueType Font: <default>
   Default Backing Store: Req from Server.

and the idl version in 7.1.1

On Friday, March 28, 2014 5:45:55 PM UTC, Petros Syntelis wrote:
> Hi all (and mostly David),
>
>
>
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View Forum Message <> Reply to Message

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> Current graphics device: X
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> Display Depth, Size: 24 bits, (1280,778)
> Visual Class: TrueColor (4)
> Bits Per RGB: 8 (8/8/8)
> Physical Color Map Entries (Emulated / Actual): 256 / 256
> Colormap: Private, 16777216 colors. Translation table: Enabled
> Graphics pixels: Combined, Dither Method: Ordered
> Write Mask: 16777215 (decimal) ffffff (hex)
> Graphics Function: 3 (copy)
> Current Font: <default>, Current TrueType Font: <default>
> Default Backing Store: Req from Server.
>
> and the idl version in 7.1.1

Yeah, I'd try giving it a smack! :-)

Then, try this in a fresh IDL session:

  IDL> DEVICE, /BYPASS_TRANSLATION

Does that make any difference?

David
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.

Subject: Re: cgImage abscissa values in axis feature
Posted by Petros Syntelis on Mon, 07 Apr 2014 16:36:34 GMT
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This didn't solve the problem.. I think though the different colors on the axis became more vivid now!!!

On Monday, April 7, 2014 5:29:24 PM UTC+1, David Fanning wrote:
> Petros Syntelis writes:
>
>
>
>>
>
>> How much i would like the good old "hitting the computer" could move a cable or something and fix the problem :p
>
>>
>
>> This is the result of Help, /Device
>
>>
>
>> IDL> help, /Device
>
>> Available Graphics Devices: CGM HP LJ NULL PCL PRINTER PS REGIS TEK X Z
>
>> Current graphics device: X
>
>> Server: X11.0, The X.Org Foundation, Release 11404000
>
>> Display Depth, Size: 24 bits, (1280,778)
>
>> Visual Class: TrueColor (4)
>
>> Bits Per RGB: 8 (8/8/8)
>
>> Physical Color Map Entries (Emulated / Actual): 256 / 256
>
>> Colormap: Private, 16777216 colors. Translation table: Enabled
>
>> Graphics pixels: Combined, Dither Method: Ordered
>
>> Write Mask: 16777215 (decimal) ffffff (hex)

>
>>   Graphics Function: 3 (copy)
>
>>   Current Font: <default>, Current TrueType Font: <default>
>
>>   Default Backing Store: Req from Server.
>
>>
>
>> and the idl version in 7.1.1
>
>
>
> Yeah, I'd try giving it a smack! :-)
>
>
>
> Then, try this in a fresh IDL session:
>
>
>
>   IDL> DEVICE, /BYPASS_TRANSLATION
>
>
>
> Does that make any difference?
>
>
>
> David
>
> --
>
> David Fanning, Ph.D.
>
> Fanning Software Consulting, Inc.
>
> Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
>
> Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: cgImage abscissa values in axis feature
Posted by David Fanning on Mon, 07 Apr 2014 16:40:08 GMT
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Petros Syntelis writes:

> This didn't solve the problem.. I think though the different colors on the axis became more vivid now!!!

Well, that's always good. :-)

I really don't know. What kind of X window system are you using? I don't think this has anything to do with IDL, to be honest. I think it is an X window setup thing or bug or something. I'm not a Mac guy, so we probably need someone with more expertise to help.

Cheers,

David
--
David Fanning, Ph.D.
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Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
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Subject: Re: cgImage abscissa values in axis feature
Posted by Petros Syntelis on Mon, 07 Apr 2014 16:47:17 GMT
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Oooh Ok then. I'll search about this online.
Thanks for all the help!

On Monday, April 7, 2014 5:40:08 PM UTC+1, David Fanning wrote:
> Petros Syntelis writes:
>
>
>
>> This didn't solve the problem.. I think though the different colors on the axis became more vivid now!!!
>
>
>
> Well, that's always good. :-)
>
>
>
> I really don't know. What kind of X window system are you using? I don't
>
> think this has anything to do with IDL, to be honest. I think it is an X
>
> window setup thing or bug or something. I'm not a Mac guy, so we
>
> probably need someone with more expertise to help.

>
>
>
> Cheers,
>
>
>
> David
>
> --
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Subject: Re: cgImage abscissa values in axis feature
Posted by David Fanning on Mon, 07 Apr 2014 17:11:13 GMT
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Petros Syntelis writes:

> Oooh Ok then. I'll search about this online.

I suspect the problem, whatever it is, has to do with reading pixel values from the display. We could confirm that by doing something like this and seeing if the axes are the correct color:

```
!p.multi=[0,5,5]
for i=0,24 do cgimage, im,xv=x,yv=x,/axis, color='dodger blue'
!p.multi=0
```

Cheers,

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

Subject: Re: cgImage abscissa values in axis feature

Posted by David Fanning on Mon, 07 Apr 2014 17:27:44 GMT
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David Fanning writes:

> I suspect the problem, whatever it is, has to do with reading pixel
> values from the display. We could confirm that by doing something like
> this and seeing if the axes are the correct color:
>
> !p.multi=[0,5,5]
> for i=0,24 do cgimage, im,xv=x,yv=x,/axis, color='dodger blue'
> !p.multi=0

Another idea just occurred to me. Type this command, then open a window and see what happens:

```
IDL> Device, Retain=2
IDL> cgDisplay
IDL> cgImage, cgDemodata(7), /Axes
```

Maybe it is a backing store problem.

Cheers,

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

Subject: Re: cgImage abscissa values in axis feature
Posted by Petros Syntelis on Mon, 07 Apr 2014 18:42:14 GMT
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This solution
for i=0,24 do cgimage, im,xv=x,yv=x,/axis, color='dodger blue'
works like a charm, regardless of Device settings etc.

About the retain:
If i use:
Device, Retain=0
!p.multi=[0,5,5]
for i=0,24 do cgImage, im, /Axes & !p.multi=0
I get colors.

If i use

Device, Retain=2
!p.multi=[0,5,5]
for i=0,24 do cgImage, im, /Axes & !p.multi=0
I get colors

if i use
Device, Retain=2
cgDisplay
!p.multi=[0,5,5]
for i=0,24 do cgImage, im, /Axes & !p.multi=0
I don't get colors, but i have the other "bug" the first 4 plots have black axes and the others have white..
i get the same result if retain is set to 0, so i think that cgDisplay does some trick and solves the problem at some extent.

On Monday, April 7, 2014 6:27:44 PM UTC+1, David Fanning wrote:
> David Fanning writes:
>
>
>
>> I suspect the problem, whatever it is, has to do with reading pixel
>
>> values from the display. We could confirm that by doing something like
>
>> this and seeing if the axes are the correct color:
>
>>
>
>> !p.multi=[0,5,5]
>
>> for i=0,24 do cgimage, im,xv=x,yv=x,/axis, color='dodger blue'
>
>> !p.multi=0
>
>
>
> Another idea just occurred to me. Type this command, then open a window
>
> and see what happens:
>
>
>
> IDL> Device, Retain=2
>
> IDL> cgDisplay
>
> IDL> cgImage, cgDemodata(7), /Axes

>
>
>
> Maybe it is a backing store problem.
>
>
>
> Cheers,
>
>
>
> David
>
> --
>
> David Fanning, Ph.D.
>
> Fanning Software Consulting, Inc.
>
> Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
>
> Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: cgImage abscissa values in axis feature
Posted by David Fanning on Mon, 07 Apr 2014 19:13:54 GMT
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Petros Syntelis writes:

> This solution
> for i=0,24 do cgimage, im,xv=x,yv=x,/axis, color='dodger blue'
> works like a charm, regardless of Device settings etc.
>
> About the retain:
> If i use:
> Device, Retain=0
> !p.multi=[0,5,5]
> for i=0,24 do cgImage, im, /Axes & !p.multi=0
> I get colors.
>
> If i use
> Device, Retain=2
> !p.multi=[0,5,5]
> for i=0,24 do cgImage, im, /Axes & !p.multi=0
> I get colors
>
> if i use

> Device, Retain=2
> cgDisplay
> !p.multi=[0,5,5]
> for i=0,24 do cgImage, im, /Axes & !p.multi=0
> I don't get colors, but i have the other "bug" the first 4 plots have black axes and the others have white..
> i get the same result if retain is set to 0, so i think that cgDisplay does some trick and solves the problem at some extent.

I think your X window manager is having trouble reading pixel information from a graphics window. This is the the only thing that makes any sense to me. Maybe its reading 4 bit per channel, or 16, or who knows what, but something is wrong there.

I don't think cgDisplay does any "tricks". It opens an IDL graphics window and erases it with a white color. Maybe the bug, whatever it is, likes white windows more than black windows. I feel the same way. :-)

Oh!! You know what is happening here?

The axes, by default, set their color to "opposite". They read the pixel in the upper-right corner of the window and then set the axis color to the "opposite" of whatever color is displayed in that single pixel. I'll bet one of your images is overwriting that pixel with a dark color, which makes all subsequent image plots be drawn in a very light color.

Is this what is going on? Maybe you should set the MultiMargin keyword cgImage to see if this works correctly if you don't completely fill up the !P.Multi region.

```
for i=0,24 do cgImage, im, /Axes, multimargin=2
```

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
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Subject: Re: cgImage abscissa values in axis feature
Posted by Petros Syntelis on Tue, 08 Apr 2014 09:23:27 GMT
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This is close i think,

In case i use
cgDisplay
for i=0,24 do cgImage,im,/Axes,multimargin=2

problem is solved.

If i use just
for i=0,24 do cgImage,im,/Axes,multimargin=2
the rainbow colored axes still exist.

So it must have to do something with the background color and the way axis pick colors.

On Friday, March 28, 2014 5:45:55 PM UTC, Petros Syntelis wrote:
> Hi all (and mostly David),
>
>
>
> I find myself very often in need to put an image into a plot with axis that show some x and y abscissa values, like in the way we use the contour command,
>
> cgcontour, data, x,y
>
> In cgImage, i can do this by setting the limits xr=[min(x),max(x)], yr=[min(x),max(x)] in a plot.
>
> This works ok for uniform x,y but doesnot work for non uniform x,y.
>
> Also, if you want repeat this some times, its more trouble than to simply put the x,y abscissa values directly.
>
>
>
> Is there a way i can put x and y vectors as values for axis? And if not, would it be too much to ask for this feture in another version of cgImage?
>
>
>
> Cheers,
>
> Petros