
Subject: Re: IDL 8 image function

Posted by [David Forcadell](#) on Wed, 02 Feb 2011 10:44:27 GMT

[View Forum Message](#) <> [Reply to Message](#)

On Feb 2, 11:02 am, sh <sebastian.h...@gmail.com> wrote:

> Hi,

>

> Is there any option/keyword to turn of the scaling between 0-255? I

> have already scaled by values e.g. between 0 and 100 because I only

> want to use this colors in the colortable, and not all of them!

> Thanks!

>

> Sebastian

I am not sure that i understand you question, but perhaps you want this :

```
result=BYTSCL( MAT_IN , TOP=100)
```

Subject: Re: IDL 8 image function

Posted by [sh](#) on Wed, 02 Feb 2011 11:44:43 GMT

[View Forum Message](#) <> [Reply to Message](#)

On Feb 2, 11:44 am, David Forcadell <david...@gmail.com> wrote:

> On Feb 2, 11:02 am, sh <sebastian.h...@gmail.com> wrote:

>

>> Hi,

>

>> Is there any option/keyword to turn of the scaling between 0-255? I

>> have already scaled by values e.g. between 0 and 100 because I only

>> want to use this colors in the colortable, and not all of them!

>> Thanks!

>

>> Sebastian

>

> I am not sure that i understand you question, but perhaps you want

> this :

>

> result=BYTSCL(MAT_IN , TOP=100)

Yes I do it exactly like this, but image() rescales it again between 0 and 255. How to turn this off?

Subject: Re: IDL 8 image function

Posted by [sh](#) on Wed, 02 Feb 2011 13:31:13 GMT

On Feb 2, 12:44 pm, sh <sebastian.h...@gmail.com> wrote:
> On Feb 2, 11:44 am, David Forcadell <david...@gmail.com> wrote:
>
>> On Feb 2, 11:02 am, sh <sebastian.h...@gmail.com> wrote:
>
>>> Hi,
>
>>> Is there any option/keyword to turn of the scaling between 0-255? I
>>> have already scaled by values e.g. between 0 and 100 because I only
>>> want to use this colors in the colortable, and not all of them!
>>> Thanks!
>
>>> Sebastian
>
>> I am not sure that i understand you question, but perhaps you want
>> this :
>
>> result=BYTSCL(MAT_IN , TOP=100)
>
> Yes I do it exactly like this, but image() rescales it again between 0
> and 255. How to turn this off?

Another question, is there any possibility to set a background value like NaN in iimage?

All NaN values are transformed to 0 after bytscl?

Subject: Re: IDL 8 image function
Posted by [sh](#) on Wed, 02 Feb 2011 15:30:44 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Feb 2, 2:31 pm, sh <sebastian.h...@gmail.com> wrote:
> On Feb 2, 12:44 pm, sh <sebastian.h...@gmail.com> wrote:
>
>
>
>> On Feb 2, 11:44 am, David Forcadell <david...@gmail.com> wrote:
>
>>> On Feb 2, 11:02 am, sh <sebastian.h...@gmail.com> wrote:
>
>>>> Hi,
>
>>>> Is there any option/keyword to turn of the scaling between 0-255? I
>>>> have already scaled by values e.g. between 0 and 100 because I only
>>>> want to use this colors in the colortable, and not all of them!

>>>> Thanks!
>
>>>> Sebastian
>
>>> I am not sure that i understand you question, but perhaps you want
>>> this :
>
>>> result=BYTSCL(MAT_IN , TOP=100)
>
>> Yes I do it exactly like this, but image() rescales it again between 0
>> and 255. How to turn this off?
>
> Another question, is there any possiblity to set a background value
> like NaN in iimage?
>
> All NaN values are transformed to 0 after bytscl?

Ok I think I found the problem. Within idlitvisimage__define.pro in
line 1801 there is the bytscl, without the possibility to turn it off.

Would be nice to specify the top and bottom or even turn it off if the
data is already scaled.

Then the next think is the colorbar which didn't match when I update
line 1801 with top and bottom.

Subject: Re: IDL 8 image function
Posted by [David Fanning](#) on Wed, 02 Feb 2011 15:43:50 GMT
[View Forum Message](#) <> [Reply to Message](#)

sh writes:

> Ok I think I found the problem. Within idlitvisimage__define.pro in
> line 1801 there is the bytscl, without the possibility to turn it off.
>
> Would be nice to specify the top and bottom or even turn it off if the
> data is already scaled.
>
> Then the next think is the colorbar which didn't match when I update
> line 1801 with top and bottom.

I don't want to intrude on a discussion of function graphics,
which I don't know much about, but all this is *easily* done,
resizeable windows and all, with TVImage and FSC_Colorbar
from the Coyote Graphics routines. :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

Subject: Re: IDL 8 image function

Posted by [penteado](#) on Wed, 02 Feb 2011 15:51:55 GMT

[View Forum Message](#) <> [Reply to Message](#)

On Feb 2, 1:30 pm, sh <sebastian.h...@gmail.com> wrote:

> On Feb 2, 2:31 pm, sh <sebastian.h...@gmail.com> wrote:

>

>

>

>

>

>> On Feb 2, 12:44 pm, sh <sebastian.h...@gmail.com> wrote:

>

>>> On Feb 2, 11:44 am, David Forcadell <david...@gmail.com> wrote:

>

>>>> On Feb 2, 11:02 am, sh <sebastian.h...@gmail.com> wrote:

>

>>>> > Hi,

>

>>>> > Is there any option/keyword to turn of the scaling between 0-255? I

>>>> > have already scaled by values e.g. between 0 and 100 because I only

>>>> > want to use this colors in the colortable, and not all of them!

>>>> > Thanks!

>

>>>> > Sebastian

>

>>>> I am not sure that i understand you question, but perhaps you want

>>>> this :

>

>>>> result=BYTSCL(MAT_IN , TOP=100)

>

>>> Yes I do it exactly like this, but image() rescales it again between 0

>>> and 255. How to turn this off?

>

>> Another question, is there any possiblity to set a background value

>> like NaN in iimage?

>
>> All NaN values are transformed to 0 after bytscl?
>
> Ok I think I found the problem. Within idlitvisimage__define.pro in
> line 1801 there is the bytscl, without the possibility to turn it off.
>
> Would be nice to specify the top and bottom or even turn it off if the
> data is already scaled.
>
> Then the next think is the colorbar which didn't match when I update
> line 1801 with top and bottom.

If I understand this right, you can to map your data into RGB, and
give image() a 3 channel image, which it will display as it is. If you
do that, you can also make it a 4 channel image, with the alpha
(transparency) channel determined by the presence of NaNs, to make
NaNs transparent.

Subject: Re: IDL 8 image function
Posted by [sh](#) on Wed, 02 Feb 2011 16:11:52 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Feb 2, 4:51 pm, Paulo Penteado <pp.pente...@gmail.com> wrote:
> On Feb 2, 1:30 pm, sh <sebastian.h...@gmail.com> wrote:
>
>
>
>> On Feb 2, 2:31 pm, sh <sebastian.h...@gmail.com> wrote:
>
>>> On Feb 2, 12:44 pm, sh <sebastian.h...@gmail.com> wrote:
>
>>>> On Feb 2, 11:44 am, David Forcadell <david...@gmail.com> wrote:
>
>>>> > On Feb 2, 11:02 am, sh <sebastian.h...@gmail.com> wrote:
>
>>>> > > Hi,
>
>>>> > > Is there any option/keyword to turn of the scaling between 0-255? I
>>>> > > have already scaled by values e.g. between 0 and 100 because I only
>>>> > > want to use this colors in the colortable, and not all of them!
>>>> > > Thanks!
>
>>>> > > Sebastian
>
>>>> > I am not sure that i understand you question, but perhaps you want
>>>> > this :
>

```
>>>> > result=BYTSCL( MAT_IN , TOP=100)
>
>>>> Yes I do it exactly like this, but image() rescales it again between 0
>>>> and 255. How to turn this off?
>
>>> Another question, is there any possibility to set a background value
>>> like NaN in iimage?
>
>>> All NaN values are transformed to 0 after bytscl?
>
>> Ok I think I found the problem. Within idlitvisimage__define.pro in
>> line 1801 there is the bytscl, without the possibility to turn it off.
>
>> Would be nice to specify the top and bottom or even turn it off if the
>> data is already scaled.
>
>> Then the next think is the colorbar which didn't match when I update
>> line 1801 with top and bottom.
>
> If I understand this right, you can to map your data into RGB, and
> give image() a 3 channel image, which it will display as it is. If you
> do that, you can also make it a 4 channel image, with the alpha
> (transparency) channel determined by the presence of NaNs, to make
> NaNs transparent.
```

I already tried an RGB image. Indeed it works for the image but since I would like to use the first color as a background value the colorbar has it included!

Maybe it will work with RGBA, I'll try that.

Thanks David, but yours is direct graphics and I would like to play around with the new graphics instead using your graphics as usual ;)

Subject: Re: IDL 8 image function
Posted by [David Fanning](#) on Wed, 02 Feb 2011 16:21:12 GMT
[View Forum Message](#) <> [Reply to Message](#)

sh writes:

```
> Thanks David, but yours is direct graphics and I would like to play
> around with the new graphics instead using your graphics as usual ;)
```

Yes, by all means. But, I have a feeling you will be back in the fold shortly. ;-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

Subject: Re: IDL 8 image function

Posted by [Paul Van Delst\[1\]](#) on Wed, 02 Feb 2011 16:35:57 GMT

[View Forum Message](#) <> [Reply to Message](#)

David Fanning wrote:

> sh writes:

>

> I don't want to intrude on a discussion of function graphics,
> which I don't know much about, but all this is *easily* done,
> resizable windows and all, with TVImage and FSC_Colorbar
> from the Coyote Graphics routines. :-)

You mean "cgImage" and "cgColorbar" don't you?

:o)

cheers,

paulv

p.s. c.l.i-p lurkers and new readers, please refer to the "Time to Fish or Cut Bait" thread so my remark doesn't cause undue confusion..... :o)

Subject: Re: IDL 8 image function

Posted by [sh](#) on Wed, 02 Feb 2011 16:51:41 GMT

[View Forum Message](#) <> [Reply to Message](#)

On Feb 2, 5:35 pm, Paul van Delst <paul.vande...@noaa.gov> wrote:

> David Fanning wrote:

>> sh writes:

>

>> I don't want to intrude on a discussion of function graphics,
>> which I don't know much about, but all this is *easily* done,

>> resizable windows and all, with TVImage and FSC_Colorbar
>> from the Coyote Graphics routines. :-)
>
> You mean "cgImage" and "cgColorbar" don't you?
>
> :o)
>
> cheers,
>
> paulv
>
> p.s. c.l.i-p lurkers and new readers, please refer to the "Time to Fish or Cut Bait" thread so my
remark doesn't cause
> undue confusion..... :o)

Ok. RGBA works properly, but colorbar sometimes says:

```
% Loaded DLM: XML.  
% Unable to create colorbar
```

and if it works it is scaled between 0 and 255. I guess I need to
rescale it somehow?

Anyone has a clue?

Subject: Re: IDL 8 image function
Posted by [David Fanning](#) on Wed, 02 Feb 2011 17:00:15 GMT
[View Forum Message](#) <> [Reply to Message](#)

Paul van Delst writes:

> You mean "cgImage" and "cgColorbar" don't you?

Yes, but I haven't checked those in yet. I'm pretty sure
the book is OK, and the Library is fine. But just the thought
of all those broken links on my web page is giving me
heartburn this morning. :-(

I've got to get to it, but my "final" list is getting
longer, not shorter... Aaaauughhhh!

Cheers,

David

--

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

Subject: Re: IDL 8 image function
Posted by [sh](#) on Wed, 02 Feb 2011 17:35:29 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Feb 2, 6:00 pm, David Fanning <n...@dfanning.com> wrote:

> Paul van Delst writes:

>> You mean "cgImage" and "cgColorbar" don't you?

>

> Yes, but I haven't checked those in yet. I'm pretty sure
> the book is OK, and the Library is fine. But just the thought
> of all those broken links on my web page is giving me
> heartburn this morning. :-(

>

> I've got to get to it, but my "final" list is getting
> longer, not shorter... Aaaughhhh!

>

> Cheers,

>

> David

>

> --

> David Fanning, Ph.D.

> Fanning Software Consulting, Inc.

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

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

Ok this error message comes if RGB_TABLE is not specified within the
image()

Now the only problem left is to rescale the colorbar from 0 to 255 to
the dataspace

Subject: Re: IDL 8 image function
Posted by [penteado](#) on Wed, 02 Feb 2011 19:20:14 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Feb 2, 3:35 pm, sh <sebastian.h...@gmail.com> wrote:

> Ok this error message comes if RGB_TABLE is not specified within the
> image()

>

> Now the only problem left is to rescale the colorbar from 0 to 255 to
> the dataspace

I had a feeling I had done this before. As it turns out, I did:

http://www.ppenteadonet.idl/pp_lib/doc/pp_colorbar_range.html

It was written back in the days of the iTools, but it seems to work
the same with Graphics.

Subject: Re: IDL 8 image function
Posted by [sh](#) on Thu, 03 Feb 2011 08:28:26 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Feb 2, 8:20 pm, Paulo Penteadon <pp.pente...@gmail.com> wrote:

> On Feb 2, 3:35 pm, sh <sebastian.h...@gmail.com> wrote:
>
>> Ok this error message comes if RGB_TABLE is not specified within the
>> image()
>
>> Now the only problem left is to rescale the colorbar from 0 to 255 to
>> the dataspace
>
> I had a feeling I had done this before. As it turns out, I did:
>
> http://www.ppenteadonet.idl/pp_lib/doc/pp_colorbar_range.html
>
> It was written back in the days of the iTools, but it seems to work
> the same with Graphics.

Thanks!! I have already a workaround for this ;)

I create a hidden image with the MY max and min values, and then use
the colorbar function on this hidden image "overlay".

```
ov_im=image([[minv,minv],[maxv,maxv]],/HIDE,/OVERPLOT)  
c = COLORBAR(TARGET=ov_im)
```

It works fine with an RGBA image in the beginning, which I have scaled
myself with BYTSCL.

Unfortunately the colorbar uses always 256 colors/values, so when I
want to use only index from 0 to 100, the rest is black.

I'm playing around now with the 'IDLgrPalette', maybe I can convince
IDL to use only the number of colors specified there.

Subject: Re: IDL 8 image function
Posted by [sh](#) on Thu, 03 Feb 2011 08:28:32 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Feb 2, 8:20 pm, Paulo Penteado <pp.pente...@gmail.com> wrote:
> On Feb 2, 3:35 pm, sh <sebastian.h...@gmail.com> wrote:
>
>> Ok this error message comes if RGB_TABLE is not specified within the
>> image()
>
>> Now the only problem left is to rescale the colorbar from 0 to 255 to
>> the dataspace
>
> I had a feeling I had done this before. As it turns out, I did:
>
> http://www.ppenteado.net/idl/pp_lib/doc/pp_colorbar_range.html
>
> It was written back in the days of the iTools, but it seems to work
> the same with Graphics.

Thanks!! I have already a workaround for this ;)

I create a hidden image with the MY max and min values, and then use the colorbar function on this hidden image "overlay".

```
ov_im=image([[minv,minv],[maxv,maxv]],/HIDE,/OVERPLOT)  
c = COLORBAR(TARGET=ov_im)
```

It works fine with an RGBA image in the beginning, which I have scaled myself with BYTSCL.

Unfortunately the colorbar uses always 256 colors/values, so when I want to use only index from 0 to 100, the rest is black.

I'm playing around now with the 'IDLgrPalette', maybe I can convince IDL to use only the number of colors specified there.

Subject: Re: IDL 8 image function
Posted by [sh](#) on Thu, 03 Feb 2011 08:28:38 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Feb 2, 8:20 pm, Paulo Penteado <pp.pente...@gmail.com> wrote:
> On Feb 2, 3:35 pm, sh <sebastian.h...@gmail.com> wrote:
>
>> Ok this error message comes if RGB_TABLE is not specified within the
>> image()
>
>> Now the only problem left is to rescale the colorbar from 0 to 255 to
>> the dataspace

>
> I had a feeling I had done this before. As it turns out, I did:
>
> http://www.ppenteado.net/idl/pp_lib/doc/pp_colorbar_range.html
>
> It was written back in the days of the iTools, but it seems to work
> the same with Graphics.

Thanks!! I have already a workaround for this ;)

I create a hidden image with the MY max and min values, and then use the colorbar function on this hidden image "overlay".

```
ov_im=image([[minv,minv],[maxv,maxv]],/HIDE,/OVERPLOT)  
c = COLORBAR(TARGET=ov_im)
```

It works fine with an RGBA image in the beginning, which I have scaled myself with BYTSCL.

Unfortunately the colorbar uses always 256 colors/values, so when I want to use only index from 0 to 100, the rest is black.

I'm playing around now with the 'IDLgrPalette', maybe I can convince IDL to use only the number of colors specified there.
