Subject: Re: ARG! Direct Color problem IDL 5.5/Linux (decomposed doesn't help) Posted by gary.hodgesREMOVE on Wed, 06 Feb 2002 21:45:12 GMT View Forum Message <> Reply to Message

Robert Stockwell <rgs1967@hotmail.com> wrote:

: I have IDL 5.5 on Redhat Linux 7.2 running KDE

: in 24bit color mode.

Me too but with Gnome.

: I have tried the conventional wisdom, ensuring I

: am in 24 bit mode, setting the decomposed keyword, etc.

: But nothing works. I have gone through every keyword

: that device will take (true\_color=24, direct\_color=24,

: translation, etc), and toggled all the relevant

: sounding ones to no avail (it seems to be in Direct

: Color mode no matter what I do, note below where I

: set true\_color = 24, but it is still in direct color).

For me it was suggested to put the above in a startup file which solved my problem with color. I couldn't get no satisfaction putting those settings in my actual code. Here is my startup file:

~>more .idl\_startup !PATH = '/usr/local/rsi/coyote:' + !PATH DEVICE, TRUE\_COLOR=24, Decomposed=0

When I plot to postscript I had to set Decomposed=1 in the code to get color.

Good luck,

Gary -- That is just about everything I know about color.

Subject: Re: ARG! Direct Color problem IDL 5.5/Linux (decomposed doesn't help) Posted by Robert Stockwell on Wed, 06 Feb 2002 23:36:52 GMT View Forum Message <> Reply to Message

part 2,

I did (finally) apply the "workaround" that www.RSINC.COM gave for the "color prolbem in IDL 5.5 on linux" (correctly) but all I get now is greyscale. No colors (although the hideous yellow rectangle did go away).

So, apparently the problem is to change my setup to less than

24bit color. That is not something I can do on the fly in IDL since following "workaround B" from RSI does not change the display on my system.

So, please ignore my posts (if they ever do show up on the group)

Cheers, bob stockwell

Subject: Re: ARG! Direct Color problem IDL 5.5/Linux (decomposed doesn't help) Posted by R.Bauer on Thu, 07 Feb 2002 10:05:54 GMT

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```
Robert Stockwell wrote:
```

```
> Greetings all,
```

- > its been hours since a post about colors, so I
- > figured I volunteer a post.

>

- > I have IDL 5.5 on Redhat Linux 7.2 running KDE
- > in 24bit color mode.

>

>

- > I cannot get proper colors to show up on screen
- > (they are fine in postscript files though).

> I have tried the conventional wisdom, ensuring I

- > am in 24 bit mode, setting the decomposed keyword, etc.
- > But nothing works. I have gone through every keyword
- > that device will take (true\_color=24, direct\_color=24,
- > translation, etc), and toggled all the relevant
- > sounding ones to no avail (it seems to be in Direct
- > Color mode no matter what I do, note below where I
- > set true\_color = 24, but it is still in direct color).

>

- > Here is sample code, where I get a yellow rectangle over
- > the whole plot window, and the surface is blue.

> > /

- > Anyone have any ideas of what is going on here?
- > Cheers,
- > bob stockwell

\_

Dear Bob,

only on one of our machine the workaraound was working. I don't know why.

I have changed to 16 bit. This works for us. No problems at the moment.

Reimar

--

Reimar Bauer

Institut fuer Stratosphaerische Chemie (ICG-1) Forschungszentrum Juelich email: R.Bauer@fz-juelich.de http://www.fz-juelich.de/icg/icg1/

a IDL library at ForschungsZentrum Juelich http://www.fz-juelich.de/icg/icg1/idl\_icglib/idl\_lib\_intro.h tml

http://www.fz-juelich.de/zb/text/publikation/juel3786.html

Subject: Re: ARG! Direct Color problem IDL 5.5/Linux (decomposed doesn't help) Posted by Nigel Wade on Thu, 07 Feb 2002 10:23:21 GMT View Forum Message <> Reply to Message

#### Robert Stockwell wrote:

- > Greetings all,
- > its been hours since a post about colors, so I
- > figured I volunteer a post.

>

- > I have IDL 5.5 on Redhat Linux 7.2 running KDE
- > in 24bit color mode.

#### Snap.

>

- > I cannot get proper colors to show up on screen
- > (they are fine in postscript files though).

It can be somewhat troublsome.

>

- > I have tried the conventional wisdom, ensuring I
- > am in 24 bit mode, setting the decomposed keyword, etc.
- > But nothing works. I have gone through every keyword
- > that device will take (true\_color=24, direct\_color=24,
- > translation, etc), and toggled all the relevant
- > sounding ones to no avail (it seems to be in Direct
- > Color mode no matter what I do, note below where I
- > set true\_color = 24, but it is still in direct color).

>

Are you doing this before you create any windows? Once IDL has created a window, even if it hasn't actually displayed it on the screen yet, the X visual is decided and cannot be changed. This is the reason it's usually placed in the idl\_startup file, so you know it's done before any windows can be created.

This incantation seems to work (xloadct displays correctly):

```
device,true=24
window,/pixmap &wdelete ; fix the IDL 5.5/Linux colour problem
device,bypass_translation=0
```

- > image = dist(100)
- > loadct,13

>

> shade\_surf,image,shade=bytscl(image)

>

This shows a shaded surface with red at the peak, going down to blue at the corners. The axes are in red. Is this what was intended?

--

N: 134 1 0 4 A 1 : : 4 4 0 B

Nigel Wade, System Administrator, Space Plasma Physics Group,

University of Leicester, Leicester, LE1 7RH, UK

E-mail: nmw@ion.le.ac.uk

Phone: +44 (0)116 2523568, Fax: +44 (0)116 2523555

Subject: Re: ARG! Direct Color problem IDL 5.5/Linux (decomposed doesn't help) Posted by Robert Stockwell on Thu, 07 Feb 2002 14:40:16 GMT

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Nigel Wade wrote:

```
> Robert Stockwell wrote:
>
>> Greetings all,
>> its been hours since a post about colors, so I
>> figured I volunteer a post.
>>
>> I have IDL 5.5 on Redhat Linux 7.2 running KDE
>> in 24bit color mode.
>>
> Snap.
Snap?
```

- > This incantation seems to work (xloadct displays correctly):
- > device.true=24
- > window,/pixmap &wdelete ; fix the IDL 5.5/Linux colour problem
- > device,bypass\_translation=0

I did put this in my startup. (Of course, \_after\_ posting the message to the newsgroup, a coworker pointed out the bug report on rsinc.com, which I had failed to find with my searches).

This does NOT solve my problem, although it does make it better. Now I get greyscale, and any color table commands are ignored, and xloadct only has greyscale, regardless of which table I choose. ....WHAT THE!?? Hey, when I put the cursor on the colorbar of xloadct, I do get the IDL color table, but for the entire desktop! That is to say, the plot window now looks correct, but the entire desktop is also in that color table, and thus gets wacky colors assigned to everything (i.e other programs are now all blue, some have black on blue fonts and are unreadable, etc). When I move the cursor off the colorbar in Xloadct, it goes back to normal (normal desktop colors, and greyscal IDL plot window). Hmmmmm, we're on to something here.

Anyways, I think I will have to change my config to only use 16 bit colors, as Reimar suggested.

Thanks for the response.

Cheers, bob

PS anyone else amazed that RSI let this broken "24bit color on linux" out the door. OOPS! I think we should chip in and by them a linux computer that they can at least run the new releases before they ship!

```
>> image = dist(100)
>> loadct,13
>>
>> shade_surf,image,shade=bytscl(image)
>>
>>
```

- > This shows a shaded surface with red at the peak, going down to blue at the
- > corners. The axes are in red. Is this what was intended?

Yes I think so. Not very exciting or nice looking, but it was a watered down snip of code that manifested the problem. (on that color table, I think 255 is red, hence the red axis instead of white.) You have a 'white on black' background I guess, my preference is to always flip white and black so my plots are black on white, so it looked a little different to me.

Subject: Re: ARG! Direct Color problem IDL 5.5/Linux (decomposed doesn't help) Posted by Robert Stockwell on Thu, 07 Feb 2002 14:43:57 GMT View Forum Message <> Reply to Message

#### Reimar Bauer wrote:

```
Dear Bob,
only on one of our machine the workaraound was working.
I don't know why.
I have changed to 16 bit. This works for us. No problems
at the moment.
Reimar
```

Thanks for the response. Yes, the work around does not work around for me either, so I guess I will follow your advice and switch my X to 16 bit colors.

Thanks!

Cheers, bob

PS I have VNC (virtual network computing) running, so I can have a little independent 16 bit virtual desktop to test out IDL before I actually make any changes. COOL!

Subject: Re: ARG! Direct Color problem IDL 5.5/Linux (decomposed doesn't help) Posted by David Fanning on Thu, 07 Feb 2002 14:54:46 GMT View Forum Message <> Reply to Message

Robert Stockwell (rgs1967@hotmail.com) writes:

- > PS anyone else amazed that RSI let this broken "24bit color on linux"
- > out the door. OOPS! I think we should chip in and by them a linux
- > computer that they can at least run the new releases before they ship!

There is always huge pressure around a software release to either (1) meet the ship date, or (2) fix the software. Fixing the software is never finished, so eventually you just say "What the hell, enough is enough" and ship the software. It's like writing a book in that respect, which is why editor's impose deadlines

But shipping with broken color and no help files is

making the decision at the completely wrong end of the continuum, in my opinion. I'd have been much more content to wait another couple weeks or even a month for a more complete product. I feel embarrassed for them, and I don't even work there.

Cheers,

David

--

David W. Fanning, Ph.D. Fanning Software Consulting

Phone: 970-221-0438, E-mail: david@dfanning.com

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

Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: ARG! Direct Color problem IDL 5.5/Linux (decomposed doesn't help) Posted by R.Bauer on Thu, 07 Feb 2002 14:55:20 GMT

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#### Robert Stockwell wrote:

>

- > Greetings all,
- > its been hours since a post about colors, so I
- > figured I volunteer a post.

>

- > I have IDL 5.5 on Redhat Linux 7.2 running KDE
- > in 24bit color mode.

>

- > I cannot get proper colors to show up on screen
- > (they are fine in postscript files though).

>

## rrrrrr arg

I tried to switch back to idl54 and 24 bit colors, but this didn't work too.

This looks now the same as Robert described for idl5.5.

Did idl5.5 hack my graphic card and destroy some settings there?

The only way we can use IDL now is 16 bit and idl5.5 ):-((

I hope there aren't any critical bugs, mistakes and errors!!!!

#### Reimar

P.S. During beta-test all was working, no color problem. Why did I spent time for debugging by beta if they change later working things.

--

### Reimar Bauer

Institut fuer Stratosphaerische Chemie (ICG-1) Forschungszentrum Juelich email: R.Bauer@fz-juelich.de http://www.fz-juelich.de/icg/icg1/

\_\_\_\_\_

a IDL library at ForschungsZentrum Juelich http://www.fz-juelich.de/icg/icg1/idl\_icglib/idl\_lib\_intro.h tml

http://www.fz-juelich.de/zb/text/publikation/juel3786.html

Subject: Re: ARG! Direct Color problem IDL 5.5/Linux (decomposed doesn't help) Posted by Jaco van Gorkom on Thu, 07 Feb 2002 16:01:56 GMT

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"Robert Stockwell" <rgs1967@hotmail.com> wrote in message news:3C6291D0.4020500@hotmail.com... <skipped some color stuff...>

- > This does NOT solve my problem, although it does make it better.
- > Now I get greyscale, and any color table commands are ignored,
- > and xloadct only has greyscale, regardless of which table I choose.
- > ....WHAT THE!?? Hey, when I put the cursor on the colorbar of
- > xloadct, I do get the IDL color table, but for the entire desktop!
- > That is to say, the plot window now looks correct, but the entire
- > desktop is also in that color table, and thus gets wacky colors
- > assigned to everything (i.e other programs are now all blue, some
- > have black on blue fonts and are unreadable, etc). When I move the
- > cursor off the colorbar in Xloadct, it goes back to normal (normal
- > desktop colors, and greyscal IDL plot window).
- > Hmmmmm, we're on to something here.

I remember once working in a window manager in which the IDL plot windows were prevented from getting the focus. The cause was some setting somewhere in the window manager configuration. Sorry, I cannot recall more details, but this definitely matches with the behaviour your are describing. (although I would only have expected this on 8-bit color)

Funny isn't it, this color behaviour of xloadct? It seems to be the only way for widgets to handle color on 256-color hardware. No way of seeing the color bar or the plots/images which your are trying to adjust while adjusting the sliders.

Hope this helps a little, Jaco

Subject: Re: ARG! Direct Color problem IDL 5.5/Linux (decomposed doesn't help) Posted by David Fanning on Thu, 07 Feb 2002 16:16:22 GMT View Forum Message <> Reply to Message

Jaco van Gorkom (j.c.van.gorkom@fz-juelich.de) writes:

- > Funny isn't it, this color behaviour of xloadct? It seems to be the only
- > way for widgets to handle color on 256-color hardware. No way of
- > seeing the color bar or the plots/images which your are trying to adjust
- > while adjusting the sliders.

Well, I'm not sure \*this\* is true. No way of seeing the color adjustments on your plots/images without re-displaying the plot/image is true. But this is easily remedied with 5-6 additional lines of code that can be reused over and over again. I certainly don't notice the burden in the programs I write.

Cheers.

David

--

David W. Fanning, Ph.D. Fanning Software Consulting

Phone: 970-221-0438, E-mail: david@dfanning.com

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Subject: Re: ARG! Direct Color problem IDL 5.5/Linux (decomposed doesn't help) Posted by Chris Mutlow on Thu, 07 Feb 2002 16:34:47 GMT

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Hi,

I agree with the general discontent on this. I spent a lot of time running the 5.5 beta test version to help avoid this kind of fundamental problem, only to find RSI had introduced this 24-bit bug into the released version.

It does rather make you wonder. Is this IDL bug like the tip of an iceberg and many more serious bugs are hidden!

### Chris Mutlow

**Rutherford Appleton Laboratory** 

```
"Reimar Bauer" <r.bauer@fz-juelich.de> wrote in message
news:3C629558.5580EA47@fz-juelich.de...
> Robert Stockwell wrote:
>>
>> Greetings all,
>> its been hours since a post about colors, so I
>> figured I volunteer a post.
>>
>> I have IDL 5.5 on Redhat Linux 7.2 running KDE
>> in 24bit color mode.
>>
>> I cannot get proper colors to show up on screen
>> (they are fine in postscript files though).
>>
>
> rrrrrrr arg
> I tried to switch back to idl54 and 24 bit colors,
> but this didn't work too.
  This looks now the same as Robert described for idl5.5.
> Did idl5.5 hack my graphic card and destroy some settings
> there?
  The only way we can use IDL now is 16 bit and idl5.5 ):-((
  I hope there aren't any critical bugs, mistakes and errors!!!!
>
>
 Reimar
> P.S. During beta-test all was working, no color problem.
> Why did I spent time for debugging by beta if they
> change later working things.
>
```

Subject: Re: ARG! Direct Color problem IDL 5.5/Linux (decomposed doesn't help) Posted by Jaco van Gorkom on Thu, 07 Feb 2002 17:09:53 GMT

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"David Fanning" <david@dfanning.com> wrote in message news:MPG.16cc563cac32937c9897f2@news.frii.com...

> Jaco van Gorkom (j.c.van.gorkom@fz-juelich.de) writes:

>

- >> Funny isn't it, this color behaviour of xloadct? It seems to be the only
- >> way for widgets to handle color on 256-color hardware. No way of
- >> seeing the color bar or the plots/images which your are trying to adjust
- >> while adjusting the sliders.

>

- > Well, I'm not sure \*this\* is true. No way of seeing the
- > color adjustments on your plots/images without re-displaying
- > the plot/image is true. But this is easily remedied with
- > 5-6 additional lines of code that can be reused over
- > and over again. I certainly don't notice the burden
- > in the programs I write.

That is the situation for video hardware which handles 32-bit color. In 8-bit color hardware (think government-funded research) there can only be 256 different colors on the screen at any one time. So if I ask IDL to allocate 256 colors, it uses a private colormap. This causes color flashing when moving in or out of plot windows and/or draw widgets. Result: when looking at a plot window in the correct colors, the black and gray/white of the slider bars appear in some of the first 20 colors of the color map. Usually

black on black. With the mouse on the slider button, the general desktop color

map is active. Ergo I do not see the plot in the color map I am adjusting. Or am I missing something?

Cheers, Jaco

P.S.: I just got this new PC last week. It seems that those cheap videocards with 1MB memory are no longer made, so now they got me a whopping 32MB. I'll have to start writing those 5-6 lines of code soon! xcolors.pro, isn't it?

Subject: Re: ARG! Direct Color problem IDL 5.5/Linux (decomposed doesn't help) Posted by Robert Stockwell on Thu, 07 Feb 2002 17:33:14 GMT View Forum Message <> Reply to Message

# David Fanning wrote:

- > Robert Stockwell (rgs1967@hotmail.com) writes:
- >> PS anyone else amazed that RSI let this broken "24bit color on linux"
- >> out the door. OOPS! I think we should chip in and by them a linux
- >> computer that they can at least run the new releases before they ship!
- >>

>

- > There is always huge pressure around a software release to
- > either (1) meet the ship date, or (2) fix the software.

Tell me about it:)

I often do programming as an independent contractor and there has never been a case where the client has allocated enough time to "properly" finish a project. There is always a decision to be made on what features and functionality will be dropped from the final version.

But broken linux/color seems to be a rather large bug to slip by. I'm not much a a linux user, but it seems that 24 bit color in linux would be quite common.

- > Fixing the software is never finished, so eventually
- > you just say "What the hell, enough is enough" and
- > ship the software. It's like writing a book in that
- > respect, which is why editor's impose deadlines

>

- > But shipping with broken color and no help files is
- > making the decision at the completely wrong end of
- > the continuum, in my opinion. I'd have been much more

- > content to wait another couple weeks or even a month
- > for a more complete product. I feel embarrassed for
- > them, and I don't even work there.

I agree. I was embarrasses when I helped a colleague convert some simple matlab code to IDL. He read in some data, and created an image overlayed on a map, and the results were terrible (due to the crazy colors). He interpreted it as an error in reading the data, when in fact I had to inform him that it was merely broken IDL. I don't think we won over a user from Matlab.

(Especially since I had in the past (jokingly) chided him for using a toy scripting language like matlab, when real scientists used the awesome programming power of objects and pointers with IDL. lol )

But I suppose RSI is telling us that color is only for the style-over-substance crowd.

Cheers, bob stockwell aka bobby greyscale

Subject: Re: ARG! Direct Color problem IDL 5.5/Linux (decomposed doesn't help) Posted by David Fanning on Thu, 07 Feb 2002 17:34:31 GMT View Forum Message <> Reply to Message

Jaco van Gorkom (j.c.van.gorkom@fz-juelich.de) writes:

- > That is the situation for video hardware which handles 32-bit color.
- > In 8-bit color hardware (think government-funded research) there can only
- > be 256 different colors on the screen at any one time. So if I ask IDL to
- > allocate 256 colors, it uses a private colormap. This causes color flashing
- > when moving in or out of plot windows and/or draw widgets. Result: when
- > looking at a plot window in the correct colors, the black and gray/white of
- > the slider bars appear in some of the first 20 colors of the color map.
- > Usually
- > black on black. With the mouse on the slider button, the general desktop
- > color
- > map is active. Ergo I do not see the plot in the color map I am adjusting.
- > Or am I missing something?

Oh, I see what you are talking about. Yes, allocating 256 colors on an 8-bit X Windows system will give you color flashing problems. This is entirely due to the

way X Windows works, and has nothing to do with IDL. But it \*is\* a problem, certainly.

- > P.S.: I just got this new PC last week. It seems that those cheap
- > videocards
- > with 1MB memory are no longer made, so now they got me a whopping 32MB.
- > I'll have to start writing those 5-6 lines of code soon! xcolors.pro, isn't
- > it?

Something like that. :-)

Cheers.

David

--

David W. Fanning, Ph.D. Fanning Software Consulting

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Subject: Re: ARG! Direct Color problem IDL 5.5/Linux (decomposed doesn't help) Posted by Nigel Wade on Thu, 07 Feb 2002 18:32:33 GMT

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# Robert Stockwell wrote:

```
>
> Nigel Wade wrote:
>> Robert Stockwell wrote:
>>
>>
>>> Greetings all,
>>> its been hours since a post about colors, so I
>>> figured I volunteer a post.
>>>
>>> I have IDL 5.5 on Redhat Linux 7.2 running KDE
>>> in 24bit color mode.
>>>
>>
>> Snap.
>
> Snap?
```

>

Ditto, the same.

Don't tell me you never played snap as a kid? Maybe it's called something else over the pond. How does that saying go "two countries separated by a common language"?

```
>> This incantation seems to work (xloadct displays correctly):
>>
>> device.true=24
>> window,/pixmap &wdelete
>> device,bypass_translation=0
>
```

- > I did put this in my startup. (Of course, \_after\_ posting the message
- > to the newsgroup, a coworker pointed out the bug report on rsinc.com,
- > which I had failed to find with my searches).

That's strange. Do you do a device, decomposed=0 first? I have a feeling that fixes the visual to the default.

- > This does NOT solve my problem, although it does make it better.
- > Now I get greyscale, and any color table commands are ignored,
- > and xloadct only has greyscale, regardless of which table I choose.
- > ....WHAT THE!?? Hey, when I put the cursor on the colorbar of
- > xloadct, I do get the IDL color table, but for the entire desktop!
- > That is to say, the plot window now looks correct, but the entire
- > desktop is also in that color table, and thus gets wacky colors > assigned to everything (i.e other programs are now all blue, some
- > have black on blue fonts and are unreadable, etc). When I move the
- > cursor off the colorbar in Xloadct, it goes back to normal (normal
- > desktop colors, and greyscal IDL plot window).
- > Hmmmmm, we're on to something here.

Yep, that's DirectColor. Just like PsuedoColor for 8 bit.

It does seem strange that you are unable to force it into TrueColor.

>

>

- > PS anyone else amazed that RSI let this broken "24bit color on linux"
- > out the door. OOPS! I think we should chip in and by them a linux
- > computer that they can at least run the new releases before they ship!

I can understand it getting shipped. I would, however, have hoped they could have released a patch for it by now.

--

-----

Nigel Wade, System Administrator, Space Plasma Physics Group,

University of Leicester, Leicester, LE1 7RH, UK

E-mail: nmw@ion.le.ac.uk

Phone: +44 (0)116 2523568, Fax: +44 (0)116 2523555

Subject: Re: ARG! Direct Color problem IDL 5.5/Linux (decomposed doesn't help) Posted by Andrew Cool on Thu, 07 Feb 2002 23:16:28 GMT

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# Jaco van Gorkom wrote:

> snip

>

- > That is the situation for video hardware which handles 32-bit color.
- > In 8-bit color hardware (think government-funded research) there can only
- > be 256 different colors on the screen at any one time. So if I ask IDL to
- > allocate 256 colors, it uses a private colormap. This causes color flashing
- > when moving in or out of plot windows and/or draw widgets. Result: when
- > looking at a plot window in the correct colors, the black and gray/white of
- > the slider bars appear in some of the first 20 colors of the color map.
- > Usually black on black. With the mouse on the slider button, the general desktop
- > color map is active. Ergo I do not see the plot in the color map I am adjusting.
- > Or am I missing something?

>

- > Cheers,
- > Jaco

I know your problem with the 8bit colour hardware in government-funded research.

as my mob mainly used IDL under OpenVMS and Xterms for many years.

We gave up allowing the default allocation of 256 colours pretty quickly too.

These days, most of us here allocate only 64 colours, and of that the top dozen or

so are set to standard colours like red, orange, yellow, green, etc, leaving about

50 colours for the actual colour scale.

By allocating only 64 colours, this allows us to open say 3-4 separate

**IDL** sessions

without any conflicting colour table problems or flashing windows as the cursor

moves around the screen.

And we're not missing anything in terms of detail. Let's face it, with 256 colours,

can you really tell which shade of lime-green pixelA is, and compare that exactly

to your colour bar legend? I'd say No - you just get a feel for the value.

Less can sometimes be more when eyeballing colour plots. Trends in the data are

just as visible, and you've always got the cursor readout if you need to reference

pixelA back to the original data.

32 bits to represent 8 bit data might just be overkill;-)

But then some people describe me as brain dead too.

Andrew

Andrew D. Cool

.->-. Electromagnetics & Propagation Group

Surveillance Systems Division Transmitted on

Defence Science & Technology Organisation 100% recycled

PO Box 1500, Salisbury electrons

South Australia 5108

Phone: 061 8 8259 5740 Fax: 061 8 8259 6673

Email: andrew.cool@dsto.defence.gov.au