Subject: Re: 16 bit Tiff image
Posted by David Fanning on Wed, 27 Feb 2008 19:12:16 GMT
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Stefano Scardigli writes:

> I'm new in using IDL and I'm using an old version too.
> I have a strange problem in writing 16 bit TIFF files
>
> this is the dump of my problem (I omitted the unuseful rows):
>
> IDL Version 5.1 (OSF alpha). Research Systems, Inc.
> IDL> img=read_tiff("V13A5.00.tif",/unsigned)
> IDL> help,img
> IMG LONG = Array[1000, 1000]
> IDL> print,max(img)
> 65535
> IDL> write_tiff,"prova.tiff",img
> IDL> print,max(img)
> 255
> IDL> img2=read_tiff("prova.tiff",/unsigned)
> IDL> print,max(img2)
> 255
> IDL> help,img
> IMG BYTE = Array[1000, 1000]
> IDL> help,img2
> IMG2 BYTE = Array[1000, 1000]
> IDL>
>
> as you can see the file prova.tiff is a 8 bit image and also the array img
> is changed from LONG to BYTE. I tried all the parameter of the write_tiff
> procedure, but nothing change

I think you forgot the SHORT keyword here:

```
IDL> write_tiff,"prova.tiff",img
```

This should be:

```
IDL> write_tiff,"prova.tiff",img, /SHORT
```

Cheers,

David

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

Subject: Re: 16 bit Tiff image
Posted by Stefano Scardigli on Wed, 27 Feb 2008 20:32:01 GMT
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nothing is changed

```
IDL> img=read_tiff("V13A5.00.tif",/unsigned)
IDL> help,img
IMG             LONG      = Array[1000, 1000]
IDL> print,max(img)
      65535
IDL> write_tiff,"prova.tiff",img,/SHORT
IDL> print,max(img)
 255
IDL> help,img
IMG             BYTE      = Array[1000, 1000]
```

On Wed, 27 Feb 2008 12:12:16 -0700, David Fanning wrote:

```
>  Stefano Scardigli writes:
>
>>  I'm new in using IDL and I'm using an old version too.
>>  I have a strange problem in writing 16 bit TIFF files
>>
>>  this is the dump of my problem (I omitted the unuseful rows):
>>
>>  IDL Version 5.1 (OSF alpha). Research Systems, Inc.
>>  IDL> img=read_tiff("V13A5.00.tif",/unsigned)
>>  IDL> help,img
>>  IMG             LONG      = Array[1000, 1000]
>>  IDL> print,max(img)
>>        65535
>>  IDL> write_tiff,"prova.tiff",img
>>  IDL> print,max(img)
>>   255
>>  IDL> img2=read_tiff("prova.tiff",/unsigned)
>>  IDL> print,max(img2)
>>   255
>>  IDL> help,img
>>  IMG             BYTE      = Array[1000, 1000]
>>  IDL> help,img2
>>  IMG2            BYTE      = Array[1000, 1000]
>>  IDL>
>>
```

>> as you can see the file prova.tiff is a 8 bit image and also the array img
>> is changed from LONG to BYTE. I tried all the parameter of the write_tiff
>> procedure, but nothing change
>
> I think you forgot the SHORT keyword here:
>
> IDL> write_tiff,"prova.tiff",img
>
> This should be:
>
> IDL> write_tiff,"prova.tiff",img, /SHORT
>
> Cheers,
>
> David

Subject: Re: 16 bit Tiff image
Posted by Jean H. on Wed, 27 Feb 2008 21:01:12 GMT
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Stefano Scardigli wrote:
> nothing is changed
>
> IDL> img=read_tiff("V13A5.00.tif",/unsigned)
> IDL> help,img
> IMG LONG = Array[1000, 1000]
> IDL> print,max(img)
> 65535
> IDL> write_tiff,"prova.tiff",img,/SHORT
> IDL> print,max(img)
> 255
> IDL> help,img
> IMG BYTE = Array[1000, 1000]

img is a long and you try to save it as an integer... have you tried

write_tiff,"prova.tiff",fix(img),/SHORT
or
write_tiff,"prova.tiff",img,/LONG
?

Jean

Subject: Re: 16 bit Tiff image
Posted by David Fanning on Wed, 27 Feb 2008 21:26:30 GMT

Stefano Scardigli writes:

> nothing is changed
>
> IDL> img=read_tiff("V13A5.00.tif",/unsigned)
> IDL> help,img
> IMG LONG = Array[1000, 1000]
> IDL> print,max(img)
> 65535
> IDL> write_tiff,"prova.tiff",img,/SHORT
> IDL> print,max(img)
> 255
> IDL> help,img
> IMG BYTE = Array[1000, 1000]

Well, I don't know what to tell you. That's not what
happens when I type the code. :-(

Cheers,

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

Subject: Re: 16 bit Tiff image
Posted by Stefano Scardigli on Wed, 27 Feb 2008 23:03:16 GMT

better, thanks:

IDL> img=read_tiff("V13A5.00.tif",/unsigned)
IDL> help,img
IMG LONG = Array[1000, 1000]
IDL> print,max(img)
65535
IDL> write_tiff,"prova.tiff",fix(img),/SHORT <---------
IDL> help,img
IMG LONG = Array[1000, 1000]
IDL> print,max(img)
65535
IDL> img2=read_tiff("prova.tiff",/unsigned)
IDL> help,img2

```
IMG2            LONG      = Array[1000, 1000]
IDL> print,max(img2)
       255
```

and now both img and img2 are LONG, but the reloaded img2 is still shrunk
to 255 levels (ie 8 bit)!

Stefano Scardigli

On Wed, 27 Feb 2008 14:01:12 -0700, Jean H wrote:

```
>  Stefano Scardigli wrote:
>>  nothing is changed
>>
>>  IDL> img=read_tiff("V13A5.00.tif",/unsigned)
>>  IDL> help,img
>>  IMG             LONG      = Array[1000, 1000]
>>  IDL> print,max(img)
>>         65535
>>  IDL> write_tiff,"prova.tiff",img,/SHORT
>>  IDL> print,max(img)
>>   255
>>  IDL> help,img
>>  IMG             BYTE      = Array[1000, 1000]
>
>  img is a long and you try to save it as an integer...  have you tried
>
>  write_tiff,"prova.tiff",fix(img),/SHORT
>  or
>  write_tiff,"prova.tiff",img,/LONG
>  ?
>
>  Jean
```

Subject: Re: 16 bit Tiff image
Posted by David Fanning on Wed, 27 Feb 2008 23:12:24 GMT
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Stefano Scardigli writes:

```
>  better, thanks:
>
>  IDL> img=read_tiff("V13A5.00.tif",/unsigned)
>  IDL> help,img
>  IMG             LONG      = Array[1000, 1000]
```

> IDL> print,max(img)
>   65535
> IDL> write_tiff,"prova.tiff",fix(img),/SHORT   <---------
> IDL> help,img
> IMG   LONG   = Array[1000, 1000]
> IDL> print,max(img)
>   65535
> IDL> img2=read_tiff("prova.tiff",/unsigned)
> IDL> help,img2
> IMG2   LONG   = Array[1000, 1000]
> IDL> print,max(img2)
>   255
>
> and now both img and img2 are LONG, but the reloaded img2 is still shrunk
> to 255 levels (ie 8 bit)!

I still don't think so. Are you being *very*
careful with your variables? You might try using
a .reset after you write the file and before you
read it again. I think it is not possible to get
what you are getting. :-)

Cheers,

David

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

Subject: Re: 16 bit Tiff image
Posted by Jean H. on Wed, 27 Feb 2008 23:45:54 GMT
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>> IDL> img=read_tiff("V13A5.00.tif",/unsigned)

>> and now both img and img2 are LONG, but the reloaded img2 is still shrunk
>> to 255 levels (ie 8 bit)!
>
> I still don't think so. Are you being *very*
> careful with your variables? You might try using
> a .reset after you write the file and before you
> read it again. I think it is not possible to get
> what you are getting. :-)
>

> Cheers,
>
> David

Could it be a litle/big endian problem?
after reading img, try to do:
SWAP_ENDIAN_INPLACE, img
and see if it helps (or if it brings you wayyyyy off)
Jean

Subject: Re: 16 bit Tiff image
Posted by Stefano Scardigli on Thu, 28 Feb 2008 06:52:09 GMT
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On Wed, 27 Feb 2008 16:45:54 -0700, Jean H wrote:

>>> IDL> img=read_tiff("V13A5.00.tif",/unsigned)
>
>>> and now both img and img2 are LONG, but the reloaded img2 is still shrunk
>>> to 255 levels (ie 8 bit)!
>>
>> I still don't think so. Are you being *very*
>> careful with your variables? You might try using
>> a .reset after you write the file and before you
>> read it again. I think it is not possible to get
>> what you are getting. :-)
>>
>> Cheers,
>>
>> David
>
> Could it be a litle/big endian problem?
> after reading img, try to do:
> SWAP_ENDIAN_INPLACE, img
> and see if it helps (or if it brings you wayyyyy off)
> Jean

I haven't SWAP_ENDIAN_INPLACE in my IDL 5.1 !!!

Subject: Re: 16 bit Tiff image
Posted by Stefano Scardigli on Thu, 28 Feb 2008 07:01:31 GMT
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On Wed, 27 Feb 2008 16:12:24 -0700, David Fanning wrote:

> Stefano Scardigli writes:
>
>> better, thanks:
>>
>> IDL> img=read_tiff("V13A5.00.tif",/unsigned)
>> IDL> help,img
>> IMG LONG = Array[1000, 1000]
>> IDL> print,max(img)
>> 65535
>> IDL> write_tiff,"prova.tiff",fix(img),/SHORT <---------
>> IDL> help,img
>> IMG LONG = Array[1000, 1000]
>> IDL> print,max(img)
>> 65535
>> IDL> img2=read_tiff("prova.tiff",/unsigned)
>> IDL> help,img2
>> IMG2 LONG = Array[1000, 1000]
>> IDL> print,max(img2)
>> 255
>>
>> and now both img and img2 are LONG, but the reloaded img2 is still shrunk
>> to 255 levels (ie 8 bit)!
>
> I still don't think so. Are you being *very*
> careful with your variables? You might try using
> a .reset after you write the file and before you
> read it again. I think it is not possible to get
> what you are getting. :-)
>
> Cheers,
>
> David

I'm very careful with my variables, and all the "code" I'm using is just
this:

```
img=read_tiff("V13A5.00.tif",/unsigned)
help,img
print,max(img)
write_tiff,"prova.tiff",fix(img),/LONG
help,img
print,max(img)
img2=read_tiff("prova.tiff",/unsigned)
help,img2
print,max(img2)
```

Subject: Re: 16 bit Tiff image
Posted by Andrew Cool on Thu, 28 Feb 2008 08:09:06 GMT
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On Feb 28, 5:01 pm, Stefano Scardigli <s.scardi...@libero.it> wrote:
> On Wed, 27 Feb 2008 16:12:24 -0700, David Fanning wrote:
>> Stefano Scardigli writes:
>
>>> better, thanks:
>
>>> IDL> img=read_tiff("V13A5.00.tif",/unsigned)
>>> IDL> help,img
>>> IMG LONG = Array[1000, 1000]
>>> IDL> print,max(img)
>>> 65535
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>>> and now both img and img2 are LONG, but the reloaded img2 is still shrunk
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>> I still don't think so. Are you being *very*
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>> Cheers,
>
>> David
>
> I'm very careful with my variables, and all the "code" I'm using is just
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> img=read_tiff("V13A5.00.tif",/unsigned)
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> print,max(img)
> write_tiff,"prova.tiff",fix(img),/LONG
> help,img
> print,max(img)
> img2=read_tiff("prova.tiff",/unsigned)

> help,img2
> print,max(img2)

My IDL5.3 manuals say that /UNSIGNED is used to read in unsigned 16-bit integer data and convert it to
unsigned 32-bit longword arrays. That keyword was obsolete by IDL 5.3.

Are you quite sure of the format of the data in your TIFF file? Have your tried QUERY_TIFF and inspected the resultant information structure?

Perhaps you could post the TIFF file somewhere for us to investigate?

Cheers,

Andrew

Subject: Re: 16 bit Tiff image
Posted by Stefano Scardigli on Fri, 29 Feb 2008 07:34:48 GMT
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what a mess =:-O

I'm on IDL 5.1 and I'm working on a remote server via ssh.

I haven't QUERY_TIFF
I haven't SWAP_ENDIAN_INPLACE

the images I'm dealing with are about 24 Mb each and they seem fine.
I'm thinking about some problem with multiband image (what is thinking IDL) and the monocromatic mine.

I'm thinking to give up to this IDL.
I spent a lot of time in compiling GDL and all the other stuff it requires. But I'm still not sure it is working fine.

Any idea?

Thanks to all

Stefano Scardigli

On Wed, 27 Feb 2008 16:12:24 -0700, David Fanning wrote:

> Stefano Scardigli writes:
>
>> better, thanks:
>>
>> IDL> img=read_tiff("V13A5.00.tif",/unsigned)
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> a .reset after you write the file and before you
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>
> Cheers,
>
> David
