
Subject: mrd_struct failure for string values inside the VM

Posted by [vino](#) on Mon, 13 Apr 2015 17:42:26 GMT

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Hi,

I am trying to run a project in IDL VM. I am trying to convert fits headers into structures using the fitshead2struct.pro. My program fails at the MRD_STRUCT.pro, when the given tag values are strings, such as DATE_OBS.

Can someone please help? Even an alternative to fitshead2struct is also welcome..

This is all the error I receive from VM:

'ERROR - Invalid field value: "

Thanks in advance,

Regards,
Vino

Subject: Re: mrd_struct failure for string values inside the VM

Posted by [wlandsman](#) on Tue, 14 Apr 2015 12:49:06 GMT

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I can tell you why the problem is likely occurring but not how to fix it :-)

mrd_struct.pro creates a structure given a list of tag names and associated variables inside a program (http://idlastro.gsfc.nasa.gov/ftp/pro/structure/mrd_struct.pro). By default, it uses EXECUTE() but it also has a less capable mode which does not use EXECUTE() and so can be used with the virtual machine. In this less capable mode, one supplies mrd_struct with the data type and dimensions of the variables rather than the variables themselves. I suspect FITSHEAD2STRUCT needs to be modified -- in a manner similar to mrdfits.pro -- so it can call mrd_struct in this less capable mode.

On Monday, April 13, 2015 at 1:42:28 PM UTC-4, vino wrote:

> Hi,

>

> I am trying to run a project in IDL VM. I am trying to convert fits headers into structures using the fitshead2struct.pro. My program fails at the MRD_STRUCT.pro, when the given tag values are strings, such as DATE_OBS.

>

> Can someone please help? Even an alternative to fitshead2struct is also welcome..

>

> This is all the error I receive from VM:

>

> 'ERROR - Invalid field value: "
>
> Thanks in advance,
>
> Regards,
> Vino

Subject: Re: mrd_struct failure for string values inside the VM
Posted by [vino](#) on Thu, 16 Apr 2015 19:52:01 GMT
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Hi Wlandsman,

Thank you for reply. Can you please suggest any work around to this.. I just need to read in a fits header as a structure, so that I can access and modify them. I am taking some MEF files and making them single FITS files with appropriate headers added to them. Any help, will be much appreciated.

Thanks and regards,
Vino

Subject: Re: mrd_struct failure for string values inside the VM
Posted by [wlandsman](#) on Fri, 17 Apr 2015 14:12:47 GMT
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If you only have access to the IDL VM, I don't believe that you are going to be able to modify FITS files. Or is it that you have a license and are trying to write a VM application?

Anyway, if you have a FITS header (e.g. read in with headfits()) then the following little program will convert it to a structure (by using a hash as a intermediary). --Wayne

```
function fits2struct,hdr
; struct = fits2struct(hdr)

keywords = strmid(hdr,0,8)
hashfits = hash()
foreach key,keywords do hashfits[key] = sxpar(hdr,key,/silent)
return,hashfits.tostruct()
end
```

On Thursday, April 16, 2015 at 3:52:04 PM UTC-4, vino wrote:

> Hi Wlandsman,
>
> Thank you for reply. Can you please suggest any work around to this.. I just need to read in a

fits header as a structure, so that I can access and modify them. I am taking some MEF files and making them single FITS files with appropriate headers added to them. Any help, will be much appreciated.

>
> Thanks and regards,
> Vino

Subject: Re: mrd_struct failure for string values inside the VM

Posted by [vino](#) on Fri, 17 Apr 2015 17:10:08 GMT

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On Friday, 17 April 2015 10:12:50 UTC-4, wlandsman wrote:

> If you only have access to the IDL VM, I don't believe that you are going to be able to modify FITS files. Or is it that you have a license and are trying to write a VM application?

>
> Anyway, if you have a FITS header (e.g. read in with headfits()) then the following little program will convert it to a structure (by using a hash as a intermediary). --Wayne

```
>  
> function fits2struct,hdr  
> ; struct = fits2struct(hdr)  
>  
> keywords = strmid(hdr,0,8)  
> hashfits = hash()  
> foreach key,keywords do hashfits[key] = sxpar(hdr,key,/,silent)  
> return,hashfits.tostruct()  
> end
```

>
>
> On Thursday, April 16, 2015 at 3:52:04 PM UTC-4, vino wrote:

>> Hi Wlandsman,

>>
>> Thank you for reply. Can you please suggest any work around to this.. I just need to read in a fits header as a structure, so that I can access and modify them. I am taking some MEF files and making them single FITS files with appropriate headers added to them. Any help, will be much appreciated.

>>
>> Thanks and regards,
>> Vino

Hi Wayne,

wow.. Thank you so much.. I do have a runtime license..but have to write an application to run in a cluster without a license.. I will try this and let you know how it goes...

With warm regards,
Vino

Subject: Re: mrd_struct failure for string values inside the VM

Posted by [alepliee](#) on Sun, 19 Apr 2015 03:26:14 GMT

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```
home='C:\Users\Cliente02\id\itt\projetos\  
;hubble=rd_tfile('teste.rtf',/auto,/convert)  
openr,1,home+'distancia1.txt'
```

```
dados=fltarr(2,24)  
readf,1,dados  
close,1
```

```
openr,1,home+'velocidade1.txt'
```

```
luz=fltarr(1,24)  
readf,1,luz  
close,1
```

```
openr,1,home+'erro1.txt'
```

```
erros=fltarr(1,24)  
readf,1,erros  
close,1
```

```
redshift=dados(0,*)  
velocidade=luz(0,*)  
erroy=erros(0,*)
```

```
plot,redshift,velocidade,psym=2,xrange=[0.0,2.5],yrange=[-50 0.0,1500.0],$  
xtit='Distancia(10E6)',ytit='Velocidade (km/s)',charsize=1.0,xminor=11,yminor=11  
oploterror,redshift,velocidade,erroy,psym=3,errcolor=fsc_color('red')  
plots,2.2,1350,psym=2,symsize=1.  
redshift2=[0.0,2.5]  
xyouts,2.22,1350,'Amostras',charsize=1.  
xyouts,2.22,1250,'Aj.Linear',charsize=1.,color=fsc_color('red')  
xyouts,2.22,1150,'Aj.Robusto',charsize=1.,color=fsc_color('green')
```

```
result=LINFIT(distancia,velocidade)  
print,result  
yfit=result(0)+result(1)*redshift2  
oplot,redshift2,yfit,linestyle=3,color=fsc_color('red')  
robusto=robust_linefit(redshift,velocidade,/bisect,NumIT = 1000)  
yrob=robusto(0)+robusto(1)*redshift2  
oplot,redshift2,yrob,linestyle=2,color=fsc_color('green')
```

```
end
```

Can someone tell me Why NOT appears as lines ?

Subject: Re: mrd_struct failure for string values inside the VM

Posted by [vino](#) on Mon, 20 Apr 2015 14:47:56 GMT

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On Saturday, 18 April 2015 23:26:16 UTC-4, alep...@gmail.com wrote:

```
> home='C:\Users\Cliente02\id\itt\projetos\'
> ;hubble=rd_tfile('teste.rtf',/auto,/convert)
> openr,1,home+'distancia1.txt'
>
> dados=fltarr(2,24)
> readf,1,dados
> close,1
>
> openr,1,home+'velocidade1.txt'
>
> luz=fltarr(1,24)
> readf,1,luz
> close,1
>
> openr,1,home+'erro1.txt'
>
> erros=fltarr(1,24)
> readf,1,erros
> close,1
>
> redshift=dados(0,*)
> velocidade=luz(0,*)
> erroy=erros(0,*)
>
> plot,redshift,velocidade,psym=2,xrange=[0.0,2.5],yrange=[-50 0.0,1500.0],$
> xtit='Distancia(10E6)',ytit='Velocidade (km/s)',charsize=1.0,xminor=11,yminor=11
> oploterror,redshift,velocidade,erroy,psym=3,errcolor=fsc_col or('red')
> plots,2.2,1350,psym=2,symsize=1.
> redshift2=[0.0,2.5]
> xyouts,2.22,1350,'Amostras',charsize=1.
> xyouts,2.22,1250,'Aj.Linear',charsize=1.,color=fsc_color('re d')
> xyouts,2.22,1150,'Aj.Robusto',charsize=1.,color=fsc_color('g reen')
>
> result=LINFIT(distancia,velocidade)
> print,result
> yfit=result(0)+result(1)*redshift2
> oplot,redshift2,yfit,linestyle=3,color=fsc_color('red')
> robusto=robust_linefit(redshift,velocidade,/bisect,NumIT = 1000)
> yrob=robusto(0)+robusto(1)*redshift2
> oplot,redshift2,yrob,linestyle=2,color=fsc_color('green')
>
> end
>
> Can someone tell me Why NOT appears as lines ?
```

Hi,

I think you have to post this as a separate question. Also, maybe you can be a little more clear as what does not appear as lines?

Subject: Re: mrd_struct failure for string values inside the VM

Posted by [vino](#) on Mon, 20 Apr 2015 14:48:36 GMT

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On Friday, 17 April 2015 10:12:50 UTC-4, wlandsman wrote:

> If you only have access to the IDL VM, I don't believe that you are going to be able to modify FITS files. Or is it that you have a license and are trying to write a VM application?

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> hashfits = hash()  
> foreach key,keywords do hashfits[key] = sxpar(hdr,key,/silent)  
> return,hashfits.tostruct()  
> end
```

```
>  
>  
> On Thursday, April 16, 2015 at 3:52:04 PM UTC-4, vino wrote:
```

```
>> Hi Wlandsman,  
>>
```

```
>> Thank you for reply. Can you please suggest any work around to this.. I just need to read in a fits header as a structure, so that I can access and modify them. I am taking some MEF files and making them single FITS files with appropriate headers added to them. Any help, will be much appreciated.
```

```
>>  
>> Thanks and regards,  
>> Vino
```

Hi Wayne,

I owe you a lot...Your solution works like a charm.. Thanks a ton....

With regards,
Vino
