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Subject: Segmentation fault with CDF routines under Linux

Posted by [riglerej](#) on Fri, 10 Nov 2000 08:00:00 GMT

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Using both 5.3, and 5.4, I consistently have problems with seg-faults when trying to run various CDF routines under Linux. I'm fairly new to using IDL to read CDFs, but I'm not trying to do anything strange. In fact, I can't even get `cdf_open` to work.

Specifically, I have a problem when my argument to `cdf_open` is a string provided by the `findfile` routine. If I type in my own string, everything works great, but if it comes from `findfile`, I get a seg-fault. The excerpt below is copied exactly from my session, and should give a very clear idea of what is happening...

```
IDL Version 5.4 (linux x86). (c) 2000, Research Systems, Inc.
```

```
Installation number: 100.
```

```
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```

```
IDL> year_beg='2000'
```

```
IDL> month_beg='08'
```

```
IDL> day_beg='01'
```

```
IDL> help
```

```
% At $MAIN$
```

```
DAY_BEG      STRING  = '01'
```

```
MONTH_BEG    STRING  = '08'
```

```
YEAR_BEG     STRING  = '2000'
```

```
Compiled Procedures:
```

```
  $MAIN$
```

```
Compiled Functions:
```

```
IDL> file=findfile('ac_*_swe_'+year_beg+month_beg+day_beg+'*.cdf' )
```

```
IDL> print,file
```

```
ac_k0_swe_20000801_v01.cdf
```

```
IDL> id=cdf_open(file)
```

```
% Loaded DLM: CDF.
```

```
Segmentation fault
```

```
[jrigler@moiraine] [15:55:03]
```

```
1016 <~/research/LPF/data/cdf/ace/swe/2000> idl
```

```
IDL Version 5.4 (linux x86). (c) 2000, Research Systems, Inc.
```

```
Installation number: 100.
```

```
Licensed for use by: moiraine
```

```
IDL> file='ac_k0_swe_20000801_v01.cdf'
```

```
IDL> id=cdf_open(file)
% Loaded DLM: CDF.
IDL>
```

Can anyone else recreate this on Linux, or with versions other than 5.3 and 5.4? I tried this with several different cdf files, so I don't think it is a problem with the file format. Any other ideas?

-Josh

P.S. While I'd love to move to HDF, that is not an option, so it might be wisest not to make that suggestion.

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Subject: Re: Segmentation fault with CDF routines under Linux  
Posted by [Med Bennett](#) on Fri, 10 Nov 2000 08:00:00 GMT  
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I've not used CDF, but the only thing I can think of is that perhaps your variable 'file' is a string array of length 1 rather than just a string. What does it say if you do a 'help,file' after `file=findfile('ac_*_swe_'+year_beg+month_beg+day_beg+'*.cdf')`? This has tripped me up numerous times in other situations. You should probably also use a variable name other than 'file', as that is a keyword to the open procedure.

riglerej@my-deja.com wrote:

- > Using both 5.3, and 5.4, I consistently have problems with seg-faults
- > when trying to run various CDF routines under Linux. I'm fairly new to
- > using IDL to read CDFs, but I'm not trying to do anything strange. In
- > fact, I can't even get cdf\_open to work.
- >
- > Specifically, I have a problem when my argument to cdf\_open is a string
- > provided by the findfile routine. If I type in my own string,
- > everything works great, but if it comes from findfile, I get a
- > seg-fault. The excerpt below is copied exactly from my session, and
- > should give a very clear idea of what is happening...
- >
- > IDL Version 5.4 (linux x86). (c) 2000, Research Systems, Inc.
- > Installation number: 100.

> Licensed for use by: moiraine  
>  
> IDL> year\_beg='2000'  
> IDL> month\_beg='08'  
> IDL> day\_beg='01'  
> IDL> help  
> % At \$MAIN\$  
> DAY\_BEG       STRING   = '01'  
> MONTH\_BEG     STRING   = '08'  
> YEAR\_BEG       STRING   = '2000'  
> Compiled Procedures:  
>     \$MAIN\$  
>  
> Compiled Functions:  
>  
> IDL> file=findfile('ac\_\*\_swe\_'+year\_beg+month\_beg+day\_beg+'\*.cdf' )  
> IDL> print,file  
> ac\_k0\_swe\_20000801\_v01.cdf  
> IDL> id=cdf\_open(file)  
> % Loaded DLM: CDF.  
> Segmentation fault  
>  
> [jrigler@moiraine] [15:55:03]  
> 1016 <~/research/LPF/data/cdf/ace/swe/2000> idl  
> IDL Version 5.4 (linux x86). (c) 2000, Research Systems, Inc.  
> Installation number: 100.  
> Licensed for use by: moiraine  
>  
> IDL> file='ac\_k0\_swe\_20000801\_v01.cdf'  
> IDL> id=cdf\_open(file)  
> % Loaded DLM: CDF.  
> IDL>  
>  
> Can anyone else recreate this on Linux, or with versions other than 5.3  
> and 5.4? I tried this with several different cdf files, so I don't  
> think it is a problem with the file format. Any other ideas?  
>  
> -Josh  
>  
> P.S. While I'd love to move to HDF, that is not an option, so it might  
> be wisest not to make that suggestion.  
>  
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Subject: Re: Segmentation fault with CDF routines under Linux

Posted by [riglerej](#) on Sat, 11 Nov 2000 00:23:16 GMT

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DOH! It's been almost three years since I last used IDL (sadly I've been forced to use MATLAB the whole time). I recall making this mistake quite often in my old IDL days. Thanks for the quick reminder. Of course calling CDF\_OPEN with "file[0]" fixed all my problems!

-Josh

In article <3A0C8541.2F5A26BF@indra.com>,

Med Bennett <mbennett@indra.com> wrote:

> I've not used CDF, but the only thing I can think of is that perhaps your

> variable 'file' is a string array of length 1 rather than just a string.

> What does it say if you do a 'help,file' after

> file=findfile('ac\_\*\_swe\_'+year\_beg+month\_beg+day\_beg+'\*.cdf' )? This has

> tripped me up numerous times in other situations. You should probably also

> use a variable name other than 'file', as that is a keyword to the open

> procedure.

>

> riglerej@my-deja.com wrote:

>

>> Using both 5.3, and 5.4, I consistently have problems with seg-faults

>> when trying to run various CDF routines under Linux. I'm fairly new to

>> using IDL to read CDFs, but I'm not trying to do anything strange.

In

>> fact, I can't even get cdf\_open to work.

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>> Specifically, I have a problem when my argument to cdf\_open is a string

>> provided by the findfile routine. If I type in my own string,

>> everything works great, but if it comes from findfile, I get a

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>> IDL Version 5.4 (linux x86). (c) 2000, Research Systems, Inc.

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>>

>> IDL> year\_beg='2000'

>> IDL> month\_beg='08'

```
>> IDL> day_beg='01'
>> IDL> help
>> % At $MAIN$
>> DAY_BEG      STRING  = '01'
>> MONTH_BEG   STRING  = '08'
>> YEAR_BEG    STRING  = '2000'
>> Compiled Procedures:
>>   $MAIN$
>>
>> Compiled Functions:
>>
>> IDL> file=findfile('ac_*_swe_'+year_beg+month_beg+day_beg+'*.cdf' )
>> IDL> print,file
>> ac_k0_swe_20000801_v01.cdf
>> IDL> id=cdf_open(file)
>> % Loaded DLM: CDF.
>> Segmentation fault
>>
>> [jrigler@moiraine] [15:55:03]
>> 1016 <~/research/LPF/data/cdf/ace/swe/2000> idl
>> IDL Version 5.4 (linux x86). (c) 2000, Research Systems, Inc.
>> Installation number: 100.
>> Licensed for use by: moiraine
>>
>> IDL> file='ac_k0_swe_20000801_v01.cdf'
>> IDL> id=cdf_open(file)
>> % Loaded DLM: CDF.
>> IDL>
>>
>> Can anyone else recreate this on Linux, or with versions other than
5.3
>> and 5.4? I tried this with several different cdf files, so I don't
>> think it is a problem with the file format. Any other ideas?
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>
>
```

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