Subject: how to search if a variable exists in a file
Posted by Xiaohua Pan on Mon, 28 Sep 2015 22:25:17 GMT
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Hi all,
   I am dealing with a set of stations which unfortunately contain different variables (netcdf formate). For example, Some stations have the variables, say 'temperature' and 'pressure', while some stations only have 'temperature'. When I read data with DO loop the stations, I would like to search the variable first, so I can skip those variables not existing to avoid the crash of program. I found a function of file_search(), but can't find a similar function for a variable. Is there anyone know how to do it? Thanks.

```
    DO i_station = 0, n-1 do begin
      DO i_var = 0, 1 do begin
       ; How to skip the variable if it doesn't exit ????
      ENDFOR
    ENDFOR
```

   Thanks.
Xiaohua

Subject: Re: how to search if a variable exists in a file
Posted by David Fanning on Mon, 28 Sep 2015 23:25:28 GMT
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Xiaohua Pan writes:

>   I am dealing with a set of stations which unfortunately contain
different variables (netcdf formate). For example, Some stations have
the variables, say 'temperature' and 'pressure', while some stations
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>   DO i_station = 0, n-1 do begin
>   DO i_var = 0, 1 do begin
>   ; How to skip the variable if it doesn't exit ????
>   ENDFOR
>   ENDFOR

If you were to use the netCDF programs in the Coyote Library to work
with your netCDF files, you could use the method HasVar to tell you if a
file contains a variable with a particular name:

   http://www.idlcoyote.com/fileio_tips/ncdf_browser.html

Cheers,

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

Subject: Re: how to search if a variable exists in a file
Posted by Paul Van Delst[1] on Tue, 29 Sep 2015 15:27:20 GMT
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On 09/28/15 18:25, Xiaohua Pan wrote:
> Hi all,
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> different variables (netcdf formate). For example, Some stations have
> the variables, say 'temperature' and 'pressure', while some stations
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> there anyone know how to do it? Thanks.
>
>   DO i_station = 0, n-1 do begin
>   DO i_var = 0, 1 do begin
>   ; How to skip the variable if it doesn't exit ????
>   ENDFOR
>   ENDFOR

See:
http://www.exelisvis.com/docs/NCDF_VARID.html

Subject: Re: how to search if a variable exists in a file
Posted by Xiaohua Pan on Tue, 29 Sep 2015 19:05:15 GMT
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On Monday, September 28, 2015 at 7:25:32 PM UTC-4, David Fanning wrote:
> Xiaohua Pan writes:
>
>>   I am dealing with a set of stations which unfortunately contain
> different variables (netcdf formate). For example, Some stations have
> the variables, say 'temperature' and 'pressure', while some stations
> only have 'temperature'. When I read data with DO loop the stations, I

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>>   ENDFOR
>>   ENDFOR
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> with your netCDF files, you could use the method HasVar to tell you if a
> file contains a variable with a particular name:
>
>   http://www.idlcoyote.com/fileio_tips/ncdf_browser.html
>
> Cheers,
>
> David
> --
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
> Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Hi David,
   It works. Thank you so much!
Xiaohua

For those who may need this information as well,
  here is an example:

```
  filename = 'data.nc'
  var_name = 'sst'
  ncdfObj = Obj_New('NCDF_FILE', filename)
 hasVar = ncdfObj -> HasVar(var_name, OBJECT=varObj)
 IF hasVar THEN BEGIN
 print, '  find the variable ' + var_name
         ENDIF ELSE BEGIN
 print, "  Can't find the variable "+var_name
 ENDELSE
```