Subject: i need to use this idl function. but how ?
Posted by Cibi Raj on Fri, 19 Jun 2015 15:58:41 GMT
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Hey i need to use a function called read_wind_mfi.pro

It is from WInd_3dp libraries made for analysing data from Wind spacecraft by Dr. Lynn Wilson of Nasa.

The read_wind_mfi.pro is used to load the magnetic field data which I have stored in my directories.

```
;+
;*******************************************************  ****************************
;
;  FUNCTION :  read_wind_mfi.pro
;  PURPOSE  :  Reads in 3-second Magnetic Field Instrument (MFI) data from
;              the Wind spacecraft and returns a structure composed of the
;              the GSE magnetic field, its magnitude, and the times
;              associated with the data in seconds of day (default tag is in
;              unix time).
;
;  CALLS:
;              time_range_define.pro
;              read_cdf.pro
;              epoch2unix.pro
;              fix_bfield_data.pro
;
;  REQUIRES:
;              1)  UMN Modified Wind/3DP IDL Libraries
;              2)  Wind 3s CDF files from CDAWeb
;                   e.g. 'wi_h0_mfi_YYYYMMDD.cdf'
;
;  INPUT:
;              NA
;
;  KEYWORDS:
;              DATE    :  [string] 'MMDDYY' [MM=month, DD=day, YY=year]
;              TRANGE  :  [Double] 2 element array specifying the range over
;                         which to get data structures [Unix time]
;*******************************************************  ********************
```

This is the notes given in the read_wind_mfi.pro and it should be called by

IDL> test = read_wind_mfi([arguments],KEYWORDS=[keywords])

this. Now I need to know what to put in the place of arguments and keywords ?

Can you please provide me an example of it , so i could just change the value and put it on IDL. ?

Subject: Re: i need to use this idl function. but how ?
Posted by David Fanning on Fri, 19 Jun 2015 17:02:46 GMT
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Cibi Raj writes:

> This is the notes given in the read_wind_mfi.pro and it should be called by
>
> IDL> test = read_wind_mfi([arguments],KEYWORDS=[keywords])
>
> this. Now I need to know what to put in the place of arguments and keywords ?
>
> Can you please provide me an example of it , so i could just change the value and put it on IDL.
?

Why don't you just keep reading? The documentation will explain the
arguments to you, the order in which they should be placed after the
name of the command, and the purpose and name of each of the keywords
you can use.

Honestly, if you can't figure this out on your own (perhaps with a bit
of experimentation), you will never be able to use IDL. You should give
up now and save yourself immense frustration. I say this in the kindest
way possible. :-)

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: i need to use this idl function. but how ?
Posted by Dick Jackson on Fri, 19 Jun 2015 18:31:38 GMT
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On Friday, 19 June 2015 10:02:49 UTC-7, David Fanning wrote:
> Cibi Raj writes:
>
>> This is the notes given in the read_wind_mfi.pro and it should be called by
>>

>> IDL> test = read_wind_mfi([arguments],KEYWORDS=[keywords])
>>
>> this. Now I need to know what to put in the place of arguments and keywords ?
>>
>> Can you please provide me an example of it , so i could just change the value and put it on IDL. ?
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> arguments to you, the order in which they should be placed after the
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>
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> of experimentation), you will never be able to use IDL. You should give
> up now and save yourself immense frustration. I say this in the kindest
> way possible. :-)
>
> Cheers,
>
> David

It looks like Cibi Raj has given all the documentation that was available, but needs a hand to connect the dots. If they had added an EXAMPLE section to the documentation, it might look like this:

```
; EXAMPLE
; result = read_wind_mfi(DATE='123199', TRANGE=[startTime, endTime])
;    (where startTime and endTime are numbers in "Unix time")
;    (https://en.wikipedia.org/wiki/Unix_time)
```

Don't give up hope! I think you first need to know the basics of IDL procedure and function calling. This page, describing how IDL routines are documented, may give some helpful examples:
http://www.exelisvis.com/docs/idl_syntax.html

Can anyone offer a link to a better "orientation" for someone who is thrown into the waters of IDL, perhaps as a first-time programmer without access to a mentor or even a good book? I will point out David's fine book (in PDF form), for those who have the option of buying it:
http://www.idlcoyote.com/coyotestore/index.php?main_page=pro
duct_info&cPath=66&products_id=183

Cheers,
-Dick

Dick Jackson Software Consulting Inc.
Victoria, BC, Canada --- http://www.d-jackson.com

Subject: Re: i need to use this idl function. but how ?
Posted by David Fanning on Fri, 19 Jun 2015 18:54:25 GMT
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Dick Jackson writes:

> Can anyone offer a link to a better "orientation" for someone who is thrown into the waters of IDL, perhaps as a first-time programmer without access to a mentor or even a good book? I will point out David's fine book (in PDF form), for those who have the option of buying it:
> http://www.idlcoyote.com/coyotestore/index.php?main_page=pro
duct_info&cPath=66&products_id=183

I would recommend Ken Bowman's book "An Introduction to Programming with IDL," except for the chapter on Fourier Analysis, which appeared to require a Math PhD to negotiate. ;-)

It is geared to a student learning computer programming for the first time.

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: i need to use this idl function. but how ?
Posted by Cibi Raj on Wed, 01 Jul 2015 14:22:52 GMT
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On Friday, 19 June 2015 17:58:44 UTC+2, Cibi Raj wrote:
> Hey i need to use a function called read_wind_mfi.pro
>
> It is from WInd_3dp libraries made for analysing data from Wind spacecraft by Dr. Lynn Wilson of Nasa.
>
> The read_wind_mfi.pro is used to load the magnetic field data which I have stored in my directories.
>
> ;+
> ;** ******************************
> ;
> ; FUNCTION : read_wind_mfi.pro
> ; PURPOSE : Reads in 3-second Magnetic Field Instrument (MFI) data from

```
> ;             the Wind spacecraft and returns a structure composed of the
> ;             the GSE magnetic field, its magnitude, and the times
> ;             associated with the data in seconds of day (default tag is in
> ;             unix time).
> ;
> ; CALLS:
> ;             time_range_define.pro
> ;             read_cdf.pro
> ;             epoch2unix.pro
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> ;
> ; REQUIRES:
> ;             1)  UMN Modified Wind/3DP IDL Libraries
> ;             2)  Wind 3s CDF files from CDAWeb
> ;                   e.g. 'wi_h0_mfi_YYYYMMDD.cdf'
> ;
> ; INPUT:
> ;             NA
> ;
> ; KEYWORDS:
> ;             DATE    :  [string] 'MMDDYY' [MM=month, DD=day, YY=year]
> ;             TRANGE  :  [Double] 2 element array specifying the range over
> ;                          which to get data structures [Unix time]
>  ;************************************************************ ********************
>
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> IDL>  test = read_wind_mfi([arguments],KEYWORDS=[keywords])
>
> this. Now I need to know what to put in the place of arguments and keywords ?
>
> Can you please provide me an example of it , so i could just change the value and put it on IDL.
?
```

Thank you so much for all of your replies ! these were very helpful. i am accessing the materials given by you :)
