
Subject: basic array-structure understanding question
Posted by [julia.walterspiel](#) on Wed, 19 Nov 2008 14:21:27 GMT
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hi everybody

This is what does not get into my head:

I have one array containing my data.
I have a second array containing the times when the data was collected.
They have the same lenght.

I put them into one structure because we all like structures and I learned about their advantages.

now:

IN SHORT are those arrays linked somehow? in other words: when working with a structure, does IDL know which value matches the corresponding date, given the data and the date array have the same length. Are those arrays somehow connected or are they completely independent from each other?

IN LONG: if I want to get e.g. all the data from all Januarys from 2000 to 2007, can I do it somehow like

`all_jan = structure.data (where(structure.time EQ 200?01??????) )..`
then it would automatically "select" only the right values. (and then I would have to make a separate array of the corresponding dates, make those two new arrays a structure so that I can plot data vs. date all in one?)

or do I have to do it via some indexing, like:
`all_jan = where (structure.time EQ 200?01??????) )`

and then apply the index to my array of data?

jeez, i'm real slow on the uptake here.. sorry for bothering you with such simple questions, but can anybody help me undo this big knot in my brain?
cheers,
juls

Subject: Re: basic array-structure understanding question
Posted by [Kenneth P. Bowman](#) on Wed, 19 Nov 2008 15:10:06 GMT
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In article

<68a3f7b5-1c15-4dbb-bf83-b019eb7dd204@g17g2000prg.googlegroups.com>,
julia.walterspiel@gmail.com wrote:

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An IDL structure is just a container, into which you can put a collection of (related) variables. Then you can pass the structure around, instead of having to pass all of the variables individually.

```
IDL> x = findgen(10)^3
IDL> i = lindgen(10)
IDL> str = {x:x, i:i}
IDL> help, str, /str
** Structure <1db1314>, 2 tags, length=80, data length=80, refs=1:
  X          FLOAT   Array[10]
  I          LONG    Array[10]
IDL> help, str.x
<Expression>  FLOAT   = Array[10]
IDL> help, str.i
<Expression>  LONG    = Array[10]
IDL> plot, str.i, str.x
IDL> even = where((str.i MOD 2) eq 0) ;Find even indices
IDL> print, even
      0      2      4      6      8
IDL> oplot, str.i[even], str.x[even], psym = -1 ;Plot even indices only
```

Ken Bowman

Subject: Re: basic array-structure understanding question
Posted by [julia.walterspiel](#) on Thu, 20 Nov 2008 08:13:15 GMT
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> An IDL structure is just a container, into which you can put a
> collection of (related) variables. Then you can pass the
> structure around, instead of having to pass all of the variables
> individually.

well put, thank you all.
juls

Subject: Re: basic array-structure understanding question
Posted by [R.Bauer](#) on Thu, 20 Nov 2008 08:46:59 GMT
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julia.walterspiel@gmail.com schrieb:
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Hi Julia

you may want to read examples in
http://www.fz-juelich.de/zb/datapool/page/439/00322_Bauer.pdf

page 49++

you can use google.com/translate_t to translate it.

cheers
Reimar

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> cheers,
> juls

Subject: Re: basic array-structure understanding question
Posted by [julia.walterspiel](#) on Thu, 20 Nov 2008 09:02:26 GMT
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thanks Reimar for the link
no need to translate it, bin aus der schweiz :)

Subject: Re: basic array-structure understanding question
Posted by [R.Bauer](#) on Thu, 20 Nov 2008 09:12:41 GMT
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julia.walterspiel@gmail.com schrieb:
> thanks Reimar for the link
> no need to translate it, bin aus der schweiz :)

eth?

Gruss
Reimar

Subject: Re: basic array-structure understanding question
Posted by [julia.walterspiel](#) on Thu, 20 Nov 2008 09:38:59 GMT
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>
> eth?

war an der ETH/Uni ZH, jetzt an der MeteoSchweiz (Pendant zum DWD),
und die arbeiten "leider" nicht mit Matlab sondern IDL.. back to
square one

Subject: Re: basic array-structure understanding question
Posted by [David Fanning](#) on Thu, 20 Nov 2008 14:00:56 GMT
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julia.walterspiel@gmail.com writes:

- > war an der ETH/Uni ZH, jetzt an der MeteoSchweiz (Pendant zum DWD),
- > und die arbeiten "leider" nicht mit Matlab sondern IDL.. back so
- > square one :)

And people ask, "Why in the world are you studying German!?"
"You just never know when it might come in handy," I answer. :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: basic array-structure understanding question

Posted by [pgrigis](#) on Thu, 20 Nov 2008 14:43:19 GMT

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julia.waltersp...@gmail.com wrote:

>>

>> eth?

>

>

- > war an der ETH/Uni ZH, jetzt an der MeteoSchweiz (Pendant zum DWD),
- > und die arbeiten "leider" nicht mit Matlab sondern IDL.. back to
- > square one

Ich wusste gar nicht, dass Meteosuisse IDL benutzt...

Mein Vertrauen in Wetterprognoses ist jetezt
ein bisschen gesunken ;-)

Liebe Gruesse aus Boston

Paolo Grigis (ehemalig doktorand an der ETH)

Subject: Re: basic array-structure understanding question

Posted by [julia.walterspiel](#) on Thu, 20 Nov 2008 15:49:53 GMT

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Na Paolo, wenn du in Boston sitzt, dann sollten dich unsere
Wetterprognosen ja nicht tangieren ;-)

aber um dich trotzdem zu beruhigen: nur die Klimaleute arbeiten mit

IDL...
grüsse vom "Züriberg"
