
Subject: Re: Matching elements in two arrays of different sizes

Posted by [Meredith Pind](#) on Thu, 28 Jun 2012 16:33:56 GMT

[View Forum Message](#) <> [Reply to Message](#)

Nevermind! Got it. Thanks for all the help!

On Thursday, June 28, 2012 9:53:44 AM UTC-5, pindsy wrote:

> Ok, that makes sense.

>

> I set jd1 to the larger dataset and jd2 to the smaller. When I compute w2 and w1 i get w2 = long[16] and w1 = !NULL. What does that mean??

>

> On Wednesday, June 27, 2012 4:28:24 PM UTC-5, alx wrote:

>> On 27 juin, 18:48, pindsy <meredith.p...@gmail.com> wrote:

>>> Hey Alain,

>>>

>>> thanks. I did this and got 16 matches

```
>>> w =      0      1      2      3      4
      10      11      12      13      14      15
      16      17      18      19      20
```

>>>

>>> When I go and print off jd2(w) (smaller array) and jd1(w) (larger array) I get this

>>>

>>> IDL> print, jd1(w)

```
>>> 2455771.2  2455771.2  2455771.2  2455771.2  2455771.2
      2455771.2  2455771.2  2455771.2  2455771.2  2455771.2
      2455771.2  2455771.2  2455771.2  2455771.2  2455771.2
      2455771.2
```

>>>

>>> IDL> print, jd2(w)

```
>>> 2455774.0  2455773.6  2455772.9  2455773.0  2455772.7
      2455778.0  2455778.0  2455776.9  2455776.9  2455783.8
      2455782.6  2455781.9  2455781.9  2455780.7  2455775.0
      2455774.8
```

>>>

>>> Which aren't the same values. I'm not sure I understand this.

>>>

>>>

>>>

>>> On Wednesday, June 27, 2012 11:14:40 AM UTC-5, alx wrote:

>>>> On 26 juin, 18:07, pindsy <meredith.p...@gmail.com> wrote:

>>>> > Hi everyone,

>>>>

>>>> > I am having trouble figuring out how to search through an array of size [1,17824] and match it to the points in another array of size [1,70].

>>>>

>>>> > What I am trying to use to match the two arrays are the month, day, year, hour, and minute within each dataset. I have made two arrays using julday and have been trying to go

through each of those arrays to find matches. However, it only searches up to the 70 first lines of the larger array and doesn't give all the possible matches.

>>>

>>>> > Any ideas on how to fix this would be helpful.

>>>

>>>> > Cheers,

>>>

>>>> > Meredith

>>>

>>>> Still use VALUE_LOCATE...

>>>> if jd1 and jd2 are the two arrays of julian dates, w will be the
>>>> vector of matching indices:

>>>> w = where(jd1[Value_Locate(jd1, jd2)] eq jd2, /NULL)

>>>

>>>> For instance:

>>>> IDL> jd1 = julday(indgen(6)*2,1,2012) ;month 1st day, every two
>>>> monthes

>>>> IDL> jd2 = julday(indgen(12),1,2012) ;1st day of each month

>>>> IDL> print, where(jd1[Value_Locate(jd1, jd2)] eq jd2, /NULL)

>>>> 0 2 4 6 8

>>>> 10

>>>

>>>> alain.

>>> On Wednesday, June 27, 2012 11:14:40 AM UTC-5, alx wrote:

>>>> On 26 juin, 18:07, pindsy <meredith.p...@gmail.com> wrote:

>>>> > Hi everyone,

>>>

>>>> > I am having trouble figuring out how to search through an array of size [1,17824] and
match it to the points in another array of size [1,70].

>>>

>>>> > What I am trying to use to match the two arrays are the month, day, year, hour, and
minute within each dataset. I have made two arrays using julday and have been trying to go
through each of those arrays to find matches. However, it only searches up to the 70 first lines
of the larger array and doesn't give all the possible matches.

>>>

>>>> > Any ideas on how to fix this would be helpful.

>>>

>>>> > Cheers,

>>>

>>>> > Meredith

>>>

>>>> Still use VALUE_LOCATE...

>>>> if jd1 and jd2 are the two arrays of julian dates, w will be the
>>>> vector of matching indices:

>>>> w = where(jd1[Value_Locate(jd1, jd2)] eq jd2, /NULL)

>>>

>>>> For instance:

>>>> IDL> jd1 = julday(indgen(6)*2,1,2012) ;month 1st day, every two

```

>>>> monthes
>>>> IDL> jd2 = julday(indgen(12),1,2012) ;1st day of each month
>>>> IDL> print, where(jd1[Value_Locate(jd1, jd2)] eq jd2, /NULL)
>>>>      0      2      4      6      8
>>>> 10
>>>
>>>> alain.
>>
>> When you calculate where(jd1[Value_Locate(jd1, jd2)] eq jd2), you can
>> call w2, you get a vector w2 of indices into jd2 pointing on those
>> values of jd2 - by definition of the Value_Locate function - which are
>> equal to the lower bound of the intervals, into jd1, containing each
>> of them.
>> Therefore, the days of interest are given by jd2[w2].
>> If you would like to get them from jd1, the simplest way is to reverse
>> the statement:
>> w1 = where(jd2[Value_Locate(jd2, jd1)] eq jd1). This time, w1 is a
>> vector of indices into jd1 and the days of interest are given by
>> jd1[w1].
>> Of course, you will easily check that w1 and w2 vectors have same
>> number of elements and that jd1[w1] is identical to jd2[w2].
>> alain.

```
