
Subject: Re: Matching elements in two arrays of different sizes
Posted by [lecacheux.alain](#) on Wed, 27 Jun 2012 21:28:24 GMT
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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 dosen'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:
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>
>>> Meredith
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>> 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.
