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Subject: recursive routine

Posted by [Thibault Garel](#) on Mon, 08 Apr 2013 09:21:37 GMT

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Hi,

I am having a hard time to figure out how to write a recursive routine for the case below.

I have 2 arrays of similar size that contain integers.

For the value 2 of A:

(a) I want to find the corresponding elements of B, B[i].

(b) Then, I search for the values of A that are equal to the B[i]

values found in step (a)

(c) repeat step (a) with new A values

and so on

Example:

A = [2, 7, 6, 2, 0]

B = [6, 3, 1, 4, 6]

(a) A[0] and A [3] have value 2 => the corresponding B elements are B[0]=6 and B[3]=4

(b) the value 4 is not found in A

(b) the value 6 is found in A : A[2]=1

(c) value 1 does not exist in B

I could easily write the algorithm in this simple example (using the where function), but cannot make it work with much larger arrays in case of N "levels" , i.e. all the steps have to be repeated N times because several elements match the condition at each step.

I guess that I should use a recursive routine... (?)

Any help much appreciated !

Thanks

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Subject: Re: recursive routine

Posted by [Matthew Argall](#) on Thu, 11 Apr 2013 13:11:01 GMT

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I have a program called "ismember.pro" that does what you want for 1 iteration. You could put it in a loop...

<https://dl.dropboxusercontent.com/u/42944960/ismember.pro>

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Subject: Re: recursive routine

Posted by [Matthew Argall](#) on Thu, 11 Apr 2013 13:22:55 GMT

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On Thursday, April 11, 2013 9:11:01 AM UTC-4, Matthew Argall wrote:

> I have a program called "ismember.pro" that does what you want for 1 iteration. You could put it in a loop...

>

>

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> <https://dl.dropboxusercontent.com/u/42944960/ismember.pro>

Actually, I think this is exactly what you need and that you only need to call it once. I have been pretty lazy this morning and did not read your post carefully the first time.

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