Subject: Re: remove duplicate elements from a multi-dimensional array efficiently in IDL
Posted by chenbo09@gmail.com on Mon, 04 May 2009 15:12:53 GMT
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On May 3, 12:47 pm, "chenb...@gmail.com" <chenb...@gmail.com> wrote:
> On May 2, 7:57 pm, Jeremy Bailin <astroco...@gmail.com> wrote:
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>> On May 2, 8:47 pm, guillermo.castilla.castell...@gmail.com wrote:
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>>> On May 1, 12:36 pm, Jeremy Bailin <astroco...@gmail.com> wrote:
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>>>> On May 1, 1:47 pm, Jeremy Bailin <astroco...@gmail.com> wrote:
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>>>> > On May 1, 12:13 pm, "chenb...@gmail.com" <chenb...@gmail.com> wrote:
>
>>>> > > Hello, everyone!
>
>>>> > > Is there anyone knows a routine in IDL that be capable to remove
>>>> > > duplicate elements from a multi-dimensional array efficiently? I 'm
>>>> > > now working with huge arrays, and I have written one by myself, it
>>>> > > works but is with low efficiency.
>
>>>> > > example of my problem:
>>>> > > the input array:
>>>> > > 1,10,9,100,200
>>>> > > 2,11,8,101,201
>>>> > > 2,11,8,101,201
>>>> > > 3,10,9,100,200
>>>> > > 4,7,12,99,199
>>>> > > 2,11,8,101,201
>
>>>> > > goal:
>>>> > > remove the duplicate elements with the same values for the second and
>>>> > > the third column.
>
>>>> > > expected output:
>>>> > > 1,10,9,100,200
>>>> > > 2,11,8,101,201
>>>> > > 4,7,12,99,199
>
>>>> > > Thanks for your help!
>
>>>> > > Bo
>
>>> If you don't have handy that ORD function Jeremy pointed out (I didn't

>>> know of it), and assuming your array is of byte type, you can do the
>>> following:
>
>>> input = [[1,10,9,100,200],[2,11,8,101,201],[2,11,8,101,201],$
>>>   [3,10,9,100,200],[4,7,12,99,199],[2,11,8,101,201]]
>
>>> keep = Where(Histogram(1000L*input[1,*]+input[2,*], rev=r) GT 0)
>>> keep = r[r[keep]]
>>> print, input[*,keep[sort(keep)]]
>>>   1   10   9   100   200
>>>   2   11   8   101   201
>>>   4   7   12   99   199
>
>>> Cheers
>
>>> Guillermo
>
>> You can find ord at:
>
>> http://web.astroconst.org/jbiu/jbiu-doc/math/ord.html
>
>> -Jeremy.
>
> Jeremy,
>
>   Thanks for your kind and prompt help!
>   It took my own routine 18 hours to do the job. I have just plug the
> codes you kindly offered into my codes, I'll let you know how
> efficient your routine is. Thanks!
>
> Bo

Hi Jeremy,

  Your code helps me save 7 hours! That's a lot. Thanks!

Bo
