
Subject: Re: Random selection of pairs

Posted by Kenneth P. Bowman on Sat, 11 Nov 2006 14:58:11 GMT

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In article <1163249745.126148.50070@h48g2000cwc.googlegroups.com>,

"Julio" <julio@cpa.unicamp.br> wrote:

> I have an array with two columns and a thousand of rows. Each row has a
> pair of latitude and longitude.
>
> Array=float(2, 1000)
>
> -27.3456 -54.6529
> -23.4546 -56.7263
> ... and so on....
>
> I need to retrieve only 100 pairs, randomly. How can I do that?
> Any comments welcome!
> Julio

It will be much simpler, and probably much quicker, to read all
of the pairs and then pick 100 randomly, like this script named
select_random:

```
x = findgen(2, 1000)      ;create fake lon-lat data
r = RANDOMU(seed, 1000)    ;generate random numbers
j = (SORT(r))[0:9]         ;find indices of 10 smallest numbers
PRINT, j
PRINT, r[j]
FOR k = 0, 9 DO PRINT, x[*,j[k]] ;print 10 random pairs
```

IDL> @select_random

952	848	497	935	490	678	853	313
365	976						
0.000964510	0.00113783	0.00255171	0.00340872	0.00390364	0.00452789	0.00609691	
0.00676597	0.0117514	0.0121868					
1904.00	1905.00						
1696.00	1697.00						
994.000	995.000						
1870.00	1871.00						
980.000	981.000						
1356.00	1357.00						
1706.00	1707.00						
626.000	627.000						
730.000	731.000						
1952.00	1953.00						

Ken Bowman

Subject: Re: Random selection of pairs
Posted by [Michael Galloy](#) on Sun, 12 Nov 2006 04:30:13 GMT
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Kenneth P. Bowman wrote:

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Yes, I think this is the way to do it.

It won't help here with only 1000 elements, but I have a routine to get the indices of the n smallest (or largest) values in an array. It uses HISTOGRAM and REVERSE_INDICES instead of the SORT in the line

```
j = (SORT(r))[0:9]
```

The article describing it is at:

<http://michaelgalloy.com/2006/06/02/finding-the-n-smallest-elements-in-an-array.html>

Mike

--

www.michaelgalloy.com

Subject: Re: Random selection of pairs
Posted by [Julio\[1\]](#) on Sun, 12 Nov 2006 12:55:35 GMT
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Thanks guys... it will help.

Cheers,
Julio

Michael Galloy escreveu:

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>
>
>
> Mike
> --
> www.michaelgalloy.com
```
