
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
```
