Subject: Finding pairs of points within a certain distance
Posted by koensayr on Mon, 08 Apr 2013 22:56:23 GMT
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Hello all,

I have a problem that I'm trying to find an efficient way to solve.

I have a large list of points (on the order of 10^8), that I need to match to a second list of points (on the order of 10^5 points), and find all pairs that are within a certain distance from each other.

The points are located on the surface of the Earth, so they are given in lat/lon coordinates. I have looked at functions like map_2points that can calculate the distance, but brute force way of matching them would be way too slow.

I noticed a user written library in the Documents of Exelis called match_sph that seem to do what I need, but I cannot find where to download it, and the website where that library was hosted seems to be down.

I have also thought about maybe dividing the points into small chunks using something like hist_nd, but was hoping that there might be an existing program for something like this already.

Any help is greatly appreciated,

Thanks!

Subject: Re: Finding pairs of points within a certain distance
Posted by Kenneth Bowman on Tue, 09 Apr 2013 13:43:09 GMT
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On 2013-04-08 22:56:23 +0000, koensayr@gmail.com said:

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> Thanks!

There are vectorized version of MAP_2POINTS and LL_ARC_AZIMUTH in my library that you can download here

http://learnidl.com/downloads/

Ken Bowman
