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Subject: Re: intersection of two tracks(lat,lon)

Posted by [Kenneth P. Bowman](#) on Thu, 17 Feb 2011 15:11:24 GMT

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In article <ijilrq\$t4g\$1@news-a.stw-bonn.de>,  
Kai Muehlbauer <kai.muehlbauer@uni-bonn.de> wrote:

> Unfortunately, this is only for X,Y-space. What can I do, if the 3rd  
> dimension (height) should also be processed?

In 3-D the tracks will probably never actually intercept. You will have to  
look for minima in the separation between the tracks.

I suggest you do a brute force solution and find the distance between  
all pairs of points. It is of order  $n_1 \times n_2$ , where  $n_1$  and  $n_2$  are the  
number of points in each track.

Then sort the results. You might need to provide some human input  
into the problem, in case there are multiple local minima. If there  
is only a single intersection, it should appear as the global minimum.

Ken Bowman

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