Subject: Re: match_2d
Posted by vino on Thu, 23 Apr 2009 12:10:57 GMT
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Hi Jeremy!!

Thank you very much for helping me out....It works very well with my
data set...
For me to be able to use this routine is going to save me about a
couple of weeks of runtime in my program!!

I have looked at WITHINSPHRAD but in that case, i still need to have
a loop which is what i was trying to avoid!!

Thanks to J.D.Smith for giving us a boon with routines like this!! (i
will someday learn how to use histogram)..

Regards,

Vino

On Apr 22, 11:39 pm, JDS <jdtsmith.nos...@yahoo.com> wrote:
>> Aha... I've looked at it in gory detail, and it turns out that the
>> routine implicitly assumes that the minimum value of both x2 and y2
>> are 0. So you can get it to work if you do the following:
>
> Aha! Thanks for the catch. That's what you get when you evaluate an
> algorithm on artificial random coordinates ranging uniformly from
> [0,1].
>
> I've updated MATCH_2D at the address mentioned to handle this issue
> explicitly, and also catch cases of matching points which fall just
> slightly outside the bounding box of the search set. I've also added
> a much-needed warning regarding using this Euclidean matching
> algorithm for points on the sphere (e.g. star positions, lat/lon,
> etc.):
>
> ; WARNING:
> ;
> ;   Distance is evaluated in a strict Euclidean sense. For
> ;   points on a sphere, the distance between two given
> ;   coordinates is *not* the Euclidean distance. As an extreme
> ;   example, consider two points very near the N. pole, but on
> ;   opposite sides (one due E, one due W). For small patches,
> ;   this Euclidean assumption is approximately valid, and the

```
> ;        method works.  See NOTES above for a tip regarding obtaining
> ;        a (more) uniform match criterion on the sphere.
> ;;
>
> Give this version a try.  By the way, the value of MATCH_DISTANCE for
> points which did *not* match is not meaningful.
>
> JD
```