Subject: Re: optimization; which point falls into a polygon
Posted by Jeremy Bailin on Wed, 23 Sep 2009 11:46:06 GMT
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Something akin to JD's match_2d might work... it would at least tell
you the closest corner of a satellite pixel for each GIS point, and is
probably faster than building a triangulation.

Is there an analytic expression for the satellite pixel corners, or do
you really have to go from the data? I'm trying to figure out if you
can directly compute it...

-Jeremy.

On Sep 22, 5:57 pm, Klemen <klemen.zak...@gmail.com> wrote:
> Hi,
>
> I am working with geostationary satellite data and some GIS rasters.
> The satellite data do not have a regular sampling (pixel has a form of
> a parallelogram) but I know corner coordinates of each pixels.
>
> I would like to do some kind of spatial join - I would like to know
> which of my pixels in GIS rasters (regularly sampled) fall into each
> satellite pixel – I would like to create a raster where each GIS pixel
> contains an index of the corresponding satellite index. This can be
> easily done using 4 for loops when the GIS raster is small. However, I
> would like to do this on a 1000 * 1000 large GIS layer. Satellite data
> have factor 3 less pixels in one direction and factor 6 less pixels in
> the other direction. Such a way is then really time consuming.
>
> How to do it faster? I was reading of triangulation, but this would
> probably mean that I would have to triangulate each GIS raster point
> with satellite centre points and then check in which of four closest
> satellite pixels falls the raster pixel. But I can imagine, that
> building a triangulation for a million times is also not really fast.
>
> Does anybody have a suggestion?
>
> Thank you in advance!
> Klemen