Subject: Re: Already written function to find if a point is within a rectangle?
Posted by Craig Markwardt on Thu, 23 Feb 2012 09:34:31 GMT

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On Feb 22, 10:25 pm, Jacare Omoplata <walkeystal...@gmail.com> wrote:
>>>> So I need a way to find out if a point (position of a star) is
>>>> within a rectangle (image boundary). The rectangle edges are not
>>>> strictly horizontal or vertical.
>
>>> You talk about coordinates in RA and dec. So are the images really
>>> rectangular? It seems to me that the real problem is that you need to
>>> deal with spherical geometry.
>
>> Not only that, but an "image boundary" will be projection-dependent
>> [*]. For small images it probably won't matter much, but there will
>> always be an edge case that gets you later.
>
> I'm thinking of making polygons with a large number of edges, instead
> of rectangles, with every data point at the edge of a FITS file as a
> vertex. That would minimize the projection error, right?

That helps. Special care is probably need around the poles though.

Craig