Subject: Re: Map_Image and interpolation
Posted by Ben Tupper on Thu, 09 Dec 1999 08:00:00 GMT
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In article <MPG.12b8d3f3d1de4d19899bb@news.frii.com>, davidf@dfanning.com says...
>
> Well, I'm ready to concede the simple algorithm you
> found on my web page may not be what you want for an arc,
> but I think you might find an equivalent arc-interpolation
> scheme on Ray Sterner's web page. (That's where I found
> this algorithm.) Or, it would be easy enough, I think,
> to come up with one of your own. (Let's let the lurkers
> come up with something. :-)
>

Actually, I think Ray's algorithm should work fine... if I can get a handle on how the warped image is georeferenced.

When I interpolate off the unwarped image I don't get the right answer because I am assuming that the unwarped image pixel locations are all the same physical size everywhere. But of course, they are not... because the east-west length of an arc second decreases as you move poleward (lines of longitude converge.) So if I try to calculate the distance between two points assuming a regular grid cell size, then I get the wrong distance (and if I interpolate or sample the grid at arbitrary locations between two points... I'll sample the wrong pixels.) But you have suggested something nifty in the arc-interpolation idea. Hey, I've got this computer and this software... maybe I could calculate distance in along the surface of a sphere between two points. Ooo! Ooo! I like it!

Here's a thought; suppose I wanted to make the mapped image program interactive. I want to post the lon/lat value of the cursor into two FSC_INPUTFIELD widgets. How do I convert the cursor position into lon/lat using direct graphics?

>
> I always enjoy these conversations, Ben. I don't always
> understand them. But I do enjoy them. :-)
>
That's good... everybody needs a straight-man like me!

Thanks again,

Ben

Ben Tupper
PemaquidRiver@tidewater.net