Subject: Re: polar interpolation
Posted by Rick Towler on Mon, 13 Jan 2003 18:39:29 GMT
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"Thomas Gutzler" <tgutzler@ee.uwa.edu.au> wrote

> Thomas Gutzler wrote:
>>
>> I should write both functions, compare, and then decide again if I want
>> to use the conversion-method. Just wanted to know _if_ there is another
>> way to do it.
>
> I'm facing the problem now. I can see it really clear and it won't let
> me pass.
> I want an interpolated curve in polar coordinates AND equidistant
> theta-values. Since the original curve isn't a straight line it's really
> complicated to pass the correct x-values to interpol so that
> reconversion of the interpolated curve would have eqidistant
> theta-values (of type integer).
> Can anybody see and solve the problem or even give me a hint?

I might be missing something here (I usually am) but why won't simple linear interpolation work? If it is difficult to get one of the canned routines to work, brew your own:

Interpolate between points a and b:

iFactor = (Ti - Ta) / (Tb - Ta)

Ri = Ra + (iFactor * (Rb - Ra))

Where Ti is the Theta value where you are interpolating your radius Ri.

-Rick