Subject: Re: Image warping in IDL
Posted by JD Smith on Thu, 09 Nov 2006 19:50:15 GMT
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On Thu, 09 Nov 2006 13:37:21 +0100, Wox wrote:

> On 8 Nov 2006 21:49:19 -0800, "Robbie" <retsil@iinet.net.au> wrote:
>
>> I don't really understand the problem fully, but I'm sure that
>> INTERPOLATE does all the hard work for you.
>
> That would be for reverse mapping. In forward mapping, it's the
> resampling (the for-loops in the original post) that takes processing
> time. There isn't really a memory problem here.
>
> So the problem in short:
> 1. How to get ride of the looping in the resampling step
> OR
> 2. How to prevent having to do the resampling in the first place
> (going to reverse mapping by having a "magical operation" converting
> the 2D spline coefficients)

I'm afraid if you want to get any further with this, you are going to have to illustrate the issue with a small amount of actual IDL code. What do you actually have in hand? The output of TRIANGULATE without the anchor points themselves? Just the map of fractional pixel positions in the input image for each pixel in the output image (as obtained by, e.g. TRIGRID)? If it's the latter, there must have been some higher-level method for defining the warp. Rather than start with the pixel-by-pixel mapping, I'd suggest going upstream. If you can't go upstream, you'll have to triangulate your entire forward map, and then sample it at the fixed x,y grid positions of the input array. This may not give a unique solution, depending on how perverse the mapping is (it could fold onto itself, for instance).

JD