Subject: Re: Fast Marching Algorithm
Posted by Juggernaut on Fri, 21 May 2010 19:56:10 GMT
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On May 21, 12:20 pm, James <donje...@gmail.com> wrote:
> Has anyone implemented (or attempted to implement) Sethian's Fast
> Marching Method in IDL? I'd like to use it to compute wave front
> propagation in a scalar field. Here's a
description:http://math.berkeley.edu/~sethian/2006/Explanati ons/fast_marching_exp...
>
> The algorithm generally uses a binary heap to keep track of the narrow
> band of neighbor *xels for the current wave front boundary. It also
> loops around the list of current boundary *xels. With all that
> looping and linked data structures, it seems like IDL might not run it
> so quickly.
>
> Matlab has this, and it seems like a pretty widely used algorithm.
> I'm surprised IDL doesn't have it built in. If there's no preexisting
> IDL implementation, I'll write a C program and post it here for anyone
> who's interested.
>
> (*xels = {pixels, voxels})

Intel's IPP library has this in a highly optimized form if you have
access. Simply wrap it and use call_external. Alas not everyone has
access....but if you're lucky enough...

Subject: Re: Fast Marching Algorithm
Posted by James[2] on Sun, 23 May 2010 00:38:47 GMT
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Hmm, the IPP suite looks to be only $199 - not bad for its apparent
capabilities. Unfortunately, I don't have it now, but maybe I can put
in a request...