
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/Explanations/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...
