Subject: Re: Fractional Pixels Origin?
Posted by mmiller3 on Fri, 17 Feb 2006 13:36:24 GMT
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>>>> > "David" == David Fanning <davidf@dfanning.com> writes:

> Then, JD Smith writes:

>> I'd urge those of you making the choice for your programs
>> to save the world confusion, and adopt the "natural"
>> choice: pixels centered on [a.5,b.5].

Here, here! JD - if you were running for office on that platform,
I'd vote for you!

> I'm not sure when (if ever) I am going to *use* fractional
> pixels, but I would like to understand it. :-)

I used to feel the same way, but then I started working on
multimodality medical image registration. In nut shell, I create
registration transformations for each image from pixel
cooridinates to space coordinates. When I want any image
intensity at any point in space, I use the inverse transforms to
take my space coordinates to pixel coordinates and then
interpolate the original data at those pixel coordinates. If I
use integer pixel coordinates, I natually get nearest neighbor
interpolation. If I want to use some other interpolation method,
I need to use fractional pixel coordinates.

Now my main problem is that every time I see a discussion like
this, I have an anxiety attack about whether or not my code
consistently does what I think it does!

Mike