Subject: Re: IDL ROT function
Posted by thompson on Tue, 28 May 2002 22:27:01 GMT
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James Kuyper <kuyper@gscmail.gsfc.nasa.gov> writes:

> David Fanning wrote:

>> Alok Nagdev (nagdev@csee.usf.edu) writes:
>>
>>
>>> I have a big image 2160x1440 pixels. After rotating the image
>>> by arbitary amount a square image turns into a parallelogram.
>>
>>
>> Uh, my math isn't what it used to be after that fall I
>> took at the last IDL Expert Programmer's Association
>> annual gala, but doesn't "square" mean that it has the
>> same number of pixels on all sides. :-(

> No, not if !D.X_PX_CM NE !D.Y_PX_CM. Furthermore, it is the rhombus that
> has all four sides equal. Whether or not it's a square also depends upon
> the angles, and not just the lengths of the sides.

ROT is a purely mathematical function. It doesn't know anything about screen parameters. It would make sense, though, if there were a way to pass in asymmetric scale parameters as a keyword. Unfortunately, the current implementation doesn't have this feature (or at least not in v5.4). It wouldn't be hard, though, to add it in. The source code is available at $IDL_DIR/lib/rot.pro, and shouldn't be hard to modify. You could probably even get RSI to implement your changes in future releases.

William Thompson

P.S. My, my! It's been many years since I ran into a graphics device that had non-square pixels. That takes me back!