Subject: Shifted origin using Polywarp and Poly_2d
Posted by jdshaw on Tue, 13 Nov 2007 22:42:07 GMT
View Forum Message <> Reply to Message

Hi,

I have some 2k x 2k astronomical images for which I need to correct the astrometry. I've tried using POLYWARP and POLY_2D, but they dont give good results as there is a reference pixel that should not be moved. The reference pixel is near the middle of the image (e.g. [1079.51, 1007.41]) that corresponds to a particular celestial coordinate.

I get much better agreement when I shift the origin to the reference coordinate for my reference vectors as the distance from the reference pixel is related to how much the coordinate shifts. I can get a good set of matrices from Polywarp this way (much better than having the origin at the corner of the image), but I am not sure how to get POLY_2D to warp around a point that is not [0,0].

Any suggestions would be appreciated.

Thanks - John

Subject: Re: Shifted origin using Polywarp and Poly_2d
Posted by wlandsman on Wed, 14 Nov 2007 14:42:02 GMT
View Forum Message <> Reply to Message

On Nov 13, 5:42 pm, jds...@udel.edu wrote:
> Hi,
>
> I have some 2k x 2k astronomical images for which I need to correct
> the astrometry. I've tried using POLYWARP and POLY_2D, but they dont
> give good results as there is a reference pixel that should not be
> moved. The reference pixel is near the middle of the image (e.g.
> [1079.51, 1007.41]) that corresponds to a particular celestial
> coordinate.

I don't quite understand what you are doing -- what are you using to correct the astroemtry? if the reference pixel is one of the grid point in polywarp then it shouldn't be moving.

You might want to look at hastrom.pro (http://idlastro.gsfc.nasa.gov/ftp/pro/astrom/hastrom.pro) which might either already be doing what you need, or provide some hints.

If instead, you have a list of star X,Y and celestial positions you

could try astromit.pro http://idlastro.gsfc.nasa.gov/ftp/contrib/landsman/mousse/as tromit.pro - it also need astrom.pro) or you could use the very cool software at http://astrometry.net. Note that once you have an astrometric solution, you can set the reference pixel to anything you want.

--Wayne
