Subject: Re: change pixel scale
Posted by wlandsman on Sat, 26 May 2012 14:01:58 GMT
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On Saturday, May 26, 2012 7:46:20 AM UTC-4, spasokl...@yahoo.com wrote:
> Hi
>
> I have some fits files (astronomy images) that have a different
> pixel scale. How is it possible to bring them on the same pixel scale?
> The given routine of degrade is not suitable, since it degrades the
> image resolution by a factor of two, which is not my case.
>
>
> Thanks a lot.

Try hastrom.pro

http://idlastro.gsfc.nasa.gov/ftp/pro/astrom/hastrom.pro

Subject: Re: change pixel scale
Posted by spasoklampanas on Sat, 26 May 2012 14:34:42 GMT
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On May 26, 5:01 pm, wlandsman <wlands...@gmail.com> wrote:
> On Saturday, May 26, 2012 7:46:20 AM UTC-4, spasokl...@yahoo.com wrote:
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> Try hastrom.pro
>
> http://idlastro.gsfc.nasa.gov/ftp/pro/astrom/hastrom.pro

I have tried this script using the following:

fits_read, 'L1780_IR.fits', image_Ha,hdr
fits_read, 'L1780_Av.fits', image_Av,hdr2

HASTROM, image_Av, hdr2, image_Av_6, newhdr, hdr

writefits,'Av_6_2mass.fits',image_Av_6,newhdr

end

But it didn't do the job. Is there any other way to use the script?
I mean another calling sequence?
Thanx a lot

Subject: Re: change pixel scale
Posted by wlandsman on Sat, 26 May 2012 15:28:47 GMT
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How do you know that it "didn't do the job"? How are you determining the pixel scale?

On Saturday, May 26, 2012 10:34:42 AM UTC-4, spasokl...@yahoo.com wrote:
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> end
>
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> I mean another calling sequence?
> Thanx a lot

Subject: Re: change pixel scale
Posted by spasoklampanas on Sat, 26 May 2012 15:56:23 GMT
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On May 26, 6:28 pm, wlandsman <wlands...@gmail.com> wrote:
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>
>
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>
>
>
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>> writefits,'Av_6_2mass.fits',image_Av_6,newhdr
>> end
>
>> But it didn't do the job. Is there any other way to use the script?
>> I mean another calling sequence?
>> Thanx a lot

The cloud in the output image seems that it disappeared.No idea why. Could that be due to the difference of the input arrays? The dimensions are:

```
IMAGE_AV        FLOAT     = Array[2133, 1602]
IMAGE_AV_6      FLOAT     = Array[250, 250]
IMAGE_HA        FLOAT     = Array[250, 250]
```

Once again, thanks a lot for your tips.

Subject: Re: change pixel scale
Posted by Russell Ryan on Sun, 27 May 2012 15:03:15 GMT
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On May 26, 7:46 am, spasoklampa...@yahoo.com wrote:
> Hi
>
> I have some fits files (astronomy images) that have a different
> pixel scale. How is it possible to bring them on the same pixel scale?
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> image resolution by a factor of two, which is not my case.
>
> Thanks a lot.

So...

There are several ways to skin this cat, and they depend on how careful you want to be. Before we get into those ways, you need to answer a few things about your images...

(1) Do they both have WCS in the headers that you trust?
(2) Are they astrometrically aligned already, and you just want to re-pixelate?

If the answer to (1) is "no," then we need to fix that first. Hopefully, you know *roughly* where your field is and can just grab a bunch of stars either from the DSS or SDSS to get the precise WCS mapped out. If not, then you need to go outside of IDL get the job done.

Then you can use hastrom.pro (in the IDL astro library) to register the two images. This does only a bilinear (I think?) interpolation --- which may not be good enough for you. If you have a weight map (or error image), then you need to process that as well --- but remember you'll need to work with variances!!

If you don't like bilinear, then the only way I know how to do this is to go outside of IDL and use SCAMP and SWarp to get the job done.

Good luck!
Russell

Subject: Re: change pixel scale
Posted by spasoklampanas on Mon, 28 May 2012 16:17:26 GMT
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On May 27, 6:03 pm, Russell Ryan <rr...@stsci.edu> wrote:

> On May 26, 7:46 am, spasoklampa...@yahoo.com wrote:
>
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> (or error image), then you need to process that as well --- but
> remember you'll need to work with variances!!
>
> If you don't like bilinear, then the only way I know how to do this is
> to go outside of IDL and use SCAMP and SWarp to get the job done.
>
> Good luck!
> Russell

Just to sound even more stupid now I got this error message:

% HASTROM: ERROR - No overlap found between original and reference
images
% HASTROM: Be sure you have the right headers and the right equinoxes
% Compiled module: WRITEFITS.

The Galactic coordinates of the cloud are the same. On ds9 I put

the cursor at the centre of the cloud and on both cases the galactic latitude and longitude are the same. What is my mistake though?