
Subject: Re: georeferencing satellite data
Posted by [dmarino](#) on Thu, 05 Dec 2002 20:42:04 GMT
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Olivier-

I think you can set up an affine transform like so:

$$x' = Ax + By + C$$

$$y' = Dx + Ey + F$$

Where,

(x',y') = map location

(x ,y) = column/row in pixels

A = x-scale : dimension of a pixel in X

B,D = rotation terms

E = negative of y-scale, pixel Y dimension

C,F = translation terms: x,y map coordinate
of the center of the upper-left pixel

You may have to do some calcs to get the upper left pixel center, but if you have several points, you should be able to figure out the GSD of those image pixels, and those things should get you there.

Sorry so brief, and good luck!

dmarino
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Olivier ARCHER <olivier.archer@ifremer.fr> wrote in message
news:<3DED3365.8000701@ifremer.fr>...

> Hi,
> It might be a faq, but i'm in a hurry and didn't find it on google. so ...
>
>
> i've got a satellite image, and i only got lat/lon for some points. I'd
> would like to get mlat and mlon to be array of the same dimensions of
> the image, containing interpolated lon/lat for each pixel of the image.
>
> so, my dream is:
> georef,image,lon,lat,x,y,mlon=mlon,mlat=mlat
> where image is the image (ie 5000x5000 array)
> lon lat are known position (ie 500 array)
> x and y are respective indice of lon/lat in the image (ie 500 array)
> mlon and mlat are output array for interpolated lon/lat (ie 5000x5000 array)
>
> map_path and map_image doesnt seem to be ok for me.

>
> If someone out there have a such routine
>
> Thanks
