Subject: Re: divide by zero problems
Posted by edward.s.meinel on Thu, 13 May 1999 07:00:00 GMT
View Forum Message <> Reply to Message

C'mon guys, this is IDL not C...

Mark Rehbein <mrehbein@aims.gov.au> wrote:

> Basically, my images have cloud pixels that I have changed to a zero
> value.

OK so far...

> I also have a mask of the image that has values 1 for good pixel
> and 0 for bad pixels (cloud).

So you have new_image = image*mask

> I then add all my images together to get
> a "sum image" and add all my masks together to get a "sum mask".

Oh, then its

```
FOR i = 0, number_of_images-1 DO BEGIN
  image_ sum = image_sum + image[*, *, i]*mask[*, *, i]
  mask_sum   = mask_sum + mask[*, *, i]
END
```

> Now to composite or average the images I do the following:
>
> composite=sum image/ sum mask.

i.e., you want to normalize the result. The you should use
something like:

```
composite = image_sum/(mask_sum + (mask_sum EQ 0))
```

> In fact I get whole image of
> NaN's in my composite even though my sum image and sum mask have
> decent values in them.

What is the TYPE of image? How many images? image_sum should be declared at least one TYPE higher than image (if image is BYTE then image_sum should be INTEGER; if image is INTEGER then image_sum should be LONG; etc.). If there are more than 256 images then mask_sum should be declared INTEGER.

Ed Meinel