Subject: Creating a composite image, avoid fill data values
Posted by Matt[1] on Fri, 13 Feb 2009 16:30:05 GMT
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Hi - I need to create a composite image showing the mean of all images
while avoiding the fill value of 0. I have 5 images that are 600 by
800. In these images there are fill values interspersed among valid
values (3-255). I'd like to create a new image showing the mean pixel
values across all images, but I need to ignore pixels with value of 0
from the calculations. Any suggestions on how to get this done?
Thanks.

Subject: Re: Creating a composite image, avoid fill data values
Posted by Craig Markwardt on Tue, 17 Feb 2009 00:08:26 GMT
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On Feb 13, 11:30 am, Matt <mmsmith1...@gmail.com> wrote:
> Hi - I need to create a composite image showing the mean of all images
> while avoiding the fill value of 0. I have 5 images that are 600 by
> 800. In these images there are fill values interspersed among valid
> values (3-255). I'd like to create a new image showing the mean pixel
> values across all images, but I need to ignore pixels with value of 0
> from the calculations. Any suggestions on how to get this done?
> Thanks.

The stacking method is OK, but in this case a loop with five
iterations will not hurt. Assuming your image is stored in the array
IMAGE(600,800,5),

```
TOT = fltarr(600,800)  ;; Cumulative total image
NSAMP = TOT            ;; Number of valid samples per pixel
for i = 0, 4 do begin
  nsamp = nsamp + (IMAGE NE 0)  ;; Accumulate number of valid pixels
  tot   = tot   + IMAGE         ;; Accumulate total
end
mean = (TOT/NSAMP)
```

Of course you will want to check NSAMP to avoid dividing by zero.