Subject: Re: Image overlapping
Posted by Mike[2] on Fri, 07 Sep 2007 14:26:55 GMT
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On Sep 7, 4:54 am, Wox <nom...@hotmail.com> wrote:
> I was actually looking at something like alpha blending, but
> then for more then two images. Any ideas? Remark: the
> distributions are just 2D arrays (i.e. no RGB)

Alpha blending can easily be extended to more than two images. The only requirements are that all the alphas be positive and that they are normalized so their sum is one. I've experimented with this a bit for medical imaging data and found that it often just results in confusing pictures. I think it is used fairly often for combining microscopy images using multiple filters. I'll append an example.

Mike

```
alpha [0.33, 0.33, 0.33]

;; Make sure alpha is normalized:
alpha = alpha/total(alpha)

;; Some sample images:
files = filepath(['mr_brain.dcm', 'mr_knee.dcm', 'mr_abdomen.dcm'],
subdirectory=['examples','data'])

Nx = 256
Ny = 256
Nimages = 3

R = bytarr(Nx,Ny)
G = bytarr(Nx,Ny)
B = bytarr(Nx,Ny)

color_tables = [1,3,8]

for i = 0, Nimages-1 do begin
  ;; Load the ith color table and get the RGB values:
  loadct, color_tables[i]
  tvlct, Ri, Gi, Bi, /get

  ;; Load the ith image and byte scale it:
  image = read_image(files[i])
  scaled = bytscl(image)

  ;; Display the ith image
```

```
   tv, scaled, i

   ;; Add the RGB values for the ith image, weighted by the ith alpha:
   R = R + alpha[i]*Ri[scaled]
   G = G + alpha[i]*Gi[scaled]
   B = B + alpha[i]*Bi[scaled]

endfor

;; Display the result
tvscl,[[[R]],[[G]],[[B]]], Nimages, true=3
```
