Subject: Re: Images
Posted by Paul Van Delst[1] on Wed, 23 Sep 2015 15:06:36 GMT
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On 09/22/15 18:42, Paulo Penteado wrote:
> On Tuesday, September 22, 2015 at 7:10:50 PM UTC-3, Joyrles Fernandes wrote:
>> I have many images of dimensions [512,512], 320 images.
>> I want to take a piece of each([1,512] and I want to join the
>> images'pieces in a only array, for example [320,512].
>
> The answer depends on what you mean by "having images". Are the
> imagesin files? One file per image? Guessing the answer to both questions is
> yes, and that you have an array with the 320 file names (let's call it
> filenames), one possible way might be something like
>
> compound_image=dblarr(320,512) ;guessing that your image data are doubles
> for i=0,319 do compound_image[i,*]=(read_image(filenames[i]))[1,*]

Or, if we assume the image data is in bytes:

```
image_stack = bytarr(512,512,320)
help, image_stack
  IMAGE_STACK     BYTE      = Array[512, 512, 320]

for i = 0,319 do image_stack[*,*,i] = read_image(filenames[i])
```

That works out to < 100MB by my reckoning. And < 300MB if there are RGB channels as well. Doesn't seem too large(?).

Then, also assuming the indexing order is correct, any slice required can be selected:

```
slice_index = 6  ; pick the 6'th longitudinal slice
image_slice = transpose(image_stack[slice_index,*,*],[2,1,0])
help, image_slice
  IMAGE_SLICE     BYTE      = Array[320, 512]

slice_index = 100  ; pick the 100'th transverse slice
image_slice = transpose(image_stack[*,slice_index,*],[2,0,1])
help, image_slice
  IMAGE_SLICE     BYTE      = Array[320, 512]
```

cheers,

paulv