Subject: Re: Image structure
Posted by David Fanning on Sat, 27 Mar 2004 05:45:57 GMT
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Julio writes:

>
> I have to create an image with 1, 2, 3, 4 or 5 bands. When I have all
> the 5 bands, I can write:
>
> Image=[(Band1),(Band2),(Band3),(Band4),(Band5)]
>
> However, in the case I don't have all the bands, like only 2, 3 and 5,
> I should put:
>
> Image=[(Band2),(Band3),(Band5)]
>
> Then, I would have to write several combinations to make that
> automatically. That's the problem! Isn't there anything easier? How
> can I modify the initial script in the case I don't have all the
> bands??

I think you are looking for a CASE statement. :-)

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting
Coyote's Guide to IDL Programming: http://www.dfanning.com/

Subject: Re: Image structure
Posted by julio on Sat, 27 Mar 2004 16:21:36 GMT
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David Fanning <david@dfanning.com> wrote in message
news:<MPG.1acec3001b9506e498971f@news.frii.com>...
> Julio writes:
>
>> Hi! I have a question, any comments will be welcome?
>>
>> I have to create an image with 1, 2, 3, 4 or 5 bands. When I have all
>> the 5 bands, I can write:
>>

>> Image=[(Band1),(Band2),(Band3),(Band4),(Band5)]
>>
>> However, in the case I don't have all the bands, like only 2, 3 and 5,
>> I should put:
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>> Image=[(Band2),(Band3),(Band5)]
>>
>> Then, I would have to write several combinations to make that
>> automatically. That's the problem! Isn't there anything easier? How
>> can I modify the initial script in the case I don't have all the
>> bands??
>
> I think you are looking for a CASE statement. :-)
>
> Cheers,
>
> David

Hi Dr Fanning, thanks for answering...

Let me explain what I'm thinking. Please tell me if it is possible.
The image is constructed through:

Image = [(Band1), (Band2), (Band3), (Band4), (Band5)]

However, sometimes I don't have all the bands. Supposing I have only Bands 1 and 3, what value I must put in place of Band2, Band4 and Band5, once I won't use them? The idea is to take these bands out from the equation.

I tried to put 0 in these places, but it doesn't work, once Bands 1 and 3 are two-dimensional matrices and 0 is not.

Case statement may help, but I have too combinations. Could you please explain what you mean?

Thanks in advance!

Regards,
Julio

Subject: Re: Image structure
Posted by David Fanning on Sat, 27 Mar 2004 17:07:48 GMT
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Julio writes:

> Let me explain what I'm thinking. Please tell me if it is possible.
> The image is constructed through:
>
> Image = [(Band1), (Band2), (Band3), (Band4), (Band5)]
>
> However, sometimes I don't have all the bands. Supposing I have only
> Bands 1 and 3, what value I must put in place of Band2, Band4 and
> Band5, once I won't use them? The idea is to take these bands out from
> the equation.
>
> I tried to put 0 in these places, but it doesn't work, once Bands 1
> and 3 are two-dimensional matrices and 0 is not.
>
> Case statement may help, but I have too combinations. Could you please
> explain what you mean?

I can't tell exactly what you are trying to do here,
but you have two choices, I think. If the "image" is
always to have five bands, then if you don't have
a particular band, you have to fake it.

Suppose these bands were 400 by 500 integer arrays,
and that band1 is absent:

```
  IF N_Elements(band1) EQ 0 THEN band1 = BytArr(400,500)
  ...
  Image = [(Band1), (Band2), (Band3), (Band4), (Band5)]
```

Now, band1 contains all zeros. (Or whatever value you
assign it that makes sense to you.)

If the image is composed of any band that happens to
be available, you have to be more inventive. How about
something like this:

```
  image = IntArr(400,500,5]
  good = IntArr(5)

  IF N_Elements(band1) NE 0 THEN BEGIN
    image[*,*,0] = band1
    good[0] = 1
  ENDIF
 ...
   IF N_Elements(band5) NE 0 THEN BEGIN
    image[*,*,4] = band5
    good[4] = 1
  ENDIF
```

```
  bands_exist = Where(good GT 0, count)
  IF count GT 0 THEN image = image[*,*,bands_exist] ELSE $
    Print, "No bands available"
```

Now image is a 400 by 500 by however-many-bands-
actually-exist array.

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting
Coyote's Guide to IDL Programming: http://www.dfanning.com/

Subject: Re: Image structure
Posted by julio on Mon, 29 Mar 2004 17:21:03 GMT
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Ok David, I'll try it. Thanks for the answer!
Julio

David Fanning <david@dfanning.com> wrote in message
news:<MPG.1acf62d1180ba741989720@news.frii.com>...
> Julio writes:
>
>> Let me explain what I'm thinking. Please tell me if it is possible.
>> The image is constructed through:
>>
>> Image = [(Band1), (Band2), (Band3), (Band4), (Band5)]
>>
>> However, sometimes I don't have all the bands. Supposing I have only
>> Bands 1 and 3, what value I must put in place of Band2, Band4 and
>> Band5, once I won't use them? The idea is to take these bands out from
>> the equation.
>>
>> I tried to put 0 in these places, but it doesn't work, once Bands 1
>> and 3 are two-dimensional matrices and 0 is not.
>>
>> Case statement may help, but I have too combinations. Could you please
>> explain what you mean?
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> I can't tell exactly what you are trying to do here,
> but you have two choices, I think. If the "image" is
> *always* to have five bands, then if you don't have

```
>  a particular band, you have to fake it.
>
>  Suppose these bands were 400 by 500 integer arrays,
>  and that band1 is absent:
>
>    IF N_Elements(band1) EQ 0 THEN band1 = BytArr(400,500)
>    ...
>    Image = [(Band1), (Band2), (Band3), (Band4), (Band5)]
>
>  Now, band1 contains all zeros. (Or whatever value you
>  assign it that makes sense to you.)
>
>  If the image is composed of any band that happens to
>  be available, you have to be more inventive. How about
>  something like this:
>
>    image = IntArr(400,500,5]
>    good = IntArr(5)
>
>    IF N_Elements(band1) NE 0 THEN BEGIN
>       image[*,*,0] = band1
>       good[0] = 1
>    ENDIF
>   ...
>     IF N_Elements(band5) NE 0 THEN BEGIN
>       image[*,*,4] = band5
>       good[4] = 1
>    ENDIF
>
>    bands_exist = Where(good GT 0, count)
>    IF count GT 0 THEN image = image[*,*,bands_exist] ELSE $
>       Print, "No bands available"
>
>  Now image is a 400 by 500 by however-many-bands-
>  actually-exist array.
>
>  Cheers,
>
>  David
```