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Subject: Re: Sanity Check

Posted by [Peter Mason](#) on Tue, 04 May 2004 21:43:45 GMT

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David Fanning wrote:

> Folks,  
>  
> OK, I've looked this up for the last time! I'm writing it  
> down. I just want to be sure I'm right about this.  
>  
> Pixel-interleaved image: BIP: 3-m-n.  
> Row-interleaved image: BIL: m-3-n.  
> Band-interleaved image: BSQ: m-n-3.  
>  
> And,  
>  
> m = column = sample  
> n = row = line  
> 3 = dim = band  
>  
> Does that look right to you? :-(  
>  
> Cheers,  
>  
> David

Pretty much, except for the descriptions.

BIP is also (?) known as "band interleaved by pixel", BIL as "band interleaved by line" and BSQ as "band sequential".

To be pedantic, a 3-band BIL INT image (for example) takes the form of `IMG = INTARR(m,3,n)` in IDL. (Remember that in IDL, `IMG[ i, j, k ]` is adjacent to `IMG[ i+1, j, k ]` in memory.)

Logically, there are three additional ways to arrange a 3D image but I haven't ever encountered any such myself. It's always been "across and then down".

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