Subject: Re: True Color Image Manipulation
Posted by Don J Lindler on Mon, 02 Apr 2001 17:07:22 GMT
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The reason for using object graphics in this case are:

1) Rotations and scaling will be faster. It would be nice to line up an object on the image with the cursor draging one color image. This part can easily be done) direct colors. Now select the registered object as the pivot for rotation. Then select a second object in one color and drag it to the object's location in a second color (rotation and scale change). Trying to update the image in direct graphics during the drag operation would be much too slow.

2) We are actually working with more that three spectral bands. Additional bands would be displayed simultaneously as color contour plots. Different colors for different bands. In direct graphics it would be easy to add a single black and white contour plot but not multiple color ones. We will also want to be able to easily add other overlay's (e.g. rubber band boxes and elliptical apertures). Also when scaling all bands simultaneously (e.g. zooming), bookeeping is easier and with direct graphics we would have to replot all the contours.

3) We will have at least two displays of the results updated simulataneously. A full image and a zoomed image. Use of IDL objects makes this easy. It would be much easier to use the existing IDL graphic objects instead of constructing our own objects from scratch. In a sense, if we used direct graphics we would be basically simulating the capabilities of the IDL graphic objects (Meaning alot of extra coding) without the added graphic speed available on the computer.

Maybe I can convince David Stern to fix the 2-D transformation for IDLgrImage objects and allow the IDLgrImage object to contain a single color.

Don

"David Fanning" <davidf@dfanning.com> wrote in message news:MPG.153251741114a448989db4@news.frii.com...
> Don J Lindler (lindler@rockit.gsfc.nasa.gov) writes:
>
>> Does anyone know a way to create a true color image using object graphics
>> such that the three
>> color planes can be manipulated independently (translation, scaling, and,
>> rotation in 2 dimensions).

>> In other words, I need each color (red, green, and blue images) in
different
>> IDLgrModel objects.
>>
>> I was able to use IDLgrImage objects with the channel set ('ff0000'x for
>> red, '00ff00'x for green,
>> and '0000ff',x for blue). These IDLgrImage objects were added to three
>> separate
>> model objects. I was able to translate and scale each model separately
but
>> not rotate them.
>> Rotation in 2 dimensions does not work properly for a IDLgrImage object.
>> Also this approach
>> has the problem that I need to supply all three color images to each
>> IDLgrImage object even
>> though I am only using one of them.
>>
>> I contacted RSI support and they first suggested using an IDLgrPolygon
>> object with the Texture
>> maps set to the images. This allows rotation in all three dimensions
but
>> did not work. The channel
>> property of the IDLgrImage was ignored when used as a texture map and it
did
>> not solve the
>> problem of supplying three images to each IDLgrImage object.
>>
>> I contacted RSI again and they suggested using a single IDLgrImage
object
>> and performing the
>> image rotations manually with the ROT function and reloading the images
into
>> the IDLgrImage
>> object with setproperty. This works but was 50% slower than just using
>> direct graphics instead
>> of object graphics.
>>
>> I would appreciate any suggestions or solutions.
>
> I think you have pretty much covered the ground here.
> But tell me again, what compelling reason do you have
> to use object graphics in the first place?
>
> Cheers,
>
> David
>
> --

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