Subject: Re: interact with iimage from the command line?
Posted by KRDean on Wed, 21 May 2008 15:29:00 GMT
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On May 20, 11:43 pm, Keflavich <keflav...@gmail.com> wrote:
> tvimage? Is that equivalent to tv, tvscl?
>
> Anyway, what I really want to do is display fully sampled data with an
> aspect ratio that allows it all to be viewed at once, but also display
> it in an interactive window so that a user can zoom in on parts of the
> data and possibly even change the transfer function interactively. I
> think the 'tv' is wrong for this sort of task - am I mistaken? atv
> comes somewhat close, but I don't think it can display weird aspect
> ratios either.
>
> Honestly, though, I haven't figured out a good way to display even
> downsampled data on the tv. I'm fairly inexperienced with IDL, but I
> have a lot of experience with other data languages. Is there any way
> to take, e.g., every 10th element along a given axis?
>
> Thanks,
> Adam

Try Image Objects (IDLgrImage, IDLgrView, IDLgeModels, IDLgrWindow).

I deal with imagery that can total upto 50Gb and image objects allow me to navigate around these large files on a desktop Windows XP with only a 1 Gb RAM. The secret is not to read the whole image, but to pick at it. Pull out the chunks you need.
IDLgrImage is used to setup the image area. Use IDLgrView to set the VIEWPLAN_RECT, then use the Window object method QueryRequiredTiles for the tile areas, either from IDLgrBuffer, IDGgrWindow, or WIDGET_DRAW. This information allows me to pull out the desired sector and display or save the fully sample data from the large image.

For a smaller display of the whole image, I use CONGRID or REBIN, such as David points out.

Using Object Graphics, I can create a command line (IDLgrBuffer) or Widget (WIDGET_DRAW or IDLgrWindow) to pull out the sector by giving a X/Y location or clicking on a point in the Widget display.

Not to say it cannot be done in direct graphics. Following the same idea as before, pull out the chunks you want. Use POINT_LUN to navigate to the spot on the image. This works great with single images that are 2 to 4 Gb. However, the image object's QueryRequiredTiles saved time for me in developing a similiar routine in direct graphics

to handle multiple image sets.

Good Luck,

Kelly Dean
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