Subject: Re: interact with iimage from the command line?
Posted by Keflavich on Wed, 21 May 2008 15:55:37 GMT
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On May 21, 6:22 am, David Fanning <n...@dfanning.com> wrote:
> Keflavichwrites:
>> tvimage? Is that equivalent to tv, tvscl?
>
> TVIMAGE is equivalent to TV in the way a Porche
> is equivalent to a Buick. :-)

Alright, I'll have to explore that.

>> 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?
>
> Yes, you are mistaken. TV allows you to display images. Period.
> All the other stuff you are interested in has to do with how the
> user interacts with data. That, generally speaking, involves
> widget programming. Since you are just starting in IDL, let
> me give you some advice. You could learn widget programming
> fifty times over before you make any progress on programming
> an iTool.

You're right that I don't want to program any widgets. I was hoping a widget existed that already did what I wanted - it looks like iimage nearly does that. If, for example, I use iimage,congrid(data, 400,400), it gives me pretty much what I want: a data display that can be interacted with. However, congrid (or indexing) changes the actual state of the data, which is not ideal.

>> atv
>> comes somewhat close, but I don't think it can display weird aspect
>> ratios either.
>
> Aspect ratios are determined simply by how you resize the image.
> In the simplest case, just make an IDL graphics window in the
> aspect ratio you want, and use TVIMAGE to display the data.
> There you go, done.
>
> Have a look at a program like ZIMAGE or XSTRETCH. (You can
> find them both on my web page.) These do the kinds of things
> you are looking for, if not exactly the way you want to do
> them. I guarantee you, they will be a LOT easier to understand
> than any iTool you pick up.

Those are both neat codes, and I think I will be able to use them for this task. There isn't a single display code that does both, though, is there?

>> 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?
>
> This, my friend, is what IDL lives to do!
>
> IDL> s = Size(image, /Dimensions) & Print, s
> 100 10000
> IDL> each10 = Indgen(1000) * 10
> IDL> resampledImage = image[*,each10]
>
> But, this is *much* more easily accomplished by simply resizing
> your array:
>
> IDL> resampledImage = Rebin(image, 100, 1000)
>
> Or, if you want it some "weird" size:
>
> IDL> weirdImage = Congrid(image, 500, 700)
>
> Any of those images can be displayed with a TV command. :-)

Ah... ok. I had tried 'rebin' but didn't have an integer factor size in my 2nd dimension. The [*,each10] trick I think I should have known, but have never used. Thanks.

Adam
