Subject: Re: IDL Movie Viewer
Posted by Mark Hadfield on Wed, 20 Mar 2002 22:10:07 GMT
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"Phil" <plmcelwee@yahoo.com> wrote in message
news:P67m8.527$Bd4.3448@dfw-service2.ext.raytheon.com...

> I have video files (in NetCDF format) that contain 256x256x1024
> frames of video. Is there an easy way to view these files in IDL?
> I'm new to IDL!

Try XINTERANIMATE first. There's an example in the documentation. (At
an IDLDE prompt, type ?xinteranimate and go from there.)

> Ideally I'd like to stop the video at any point and look at
> individual pixel values. Also I would need to be able to adjust the
> gain and offset of the video for viewing purposes. Anyone know of
> an easy way to do this, or know where I can find a good third party
> utility?

XINTERANIMATE won't do this OOTB. It might not be too hard to hack it
so it will. XINTERANIMATE (which is based on the CW_ANIMATE compound
widget function) keeps its images in a series of off-screen
pixmaps. If you can get a handle to these (not using the term handle
in its technical sense here) you can manipulate them any way you want
via command-line operations. But adding this functionality to the user
interface would not be non-trivial, and not a good thing to do IMHO.

I have an image-loop viewer that could be modified to do what you
want. It's object-based and so relatively easily extensible. If you
want I can dig it up.

There may be other solutions around. Check the usual WWW sites,
starting with David Fanning's:

  http://www.dfanning.com/

--
Mark Hadfield
m.hadfield@niwa.co.nz   Ka puwaha et tai nei
http://katipo.niwa.co.nz/~hadfield   Hoea tatou
National Institute for Water and Atmospheric Research (NIWA)

Subject: Re: IDL Movie Viewer
Posted by Phil[1] on Wed, 20 Mar 2002 23:20:16 GMT
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Thanks for the quick reply. I tried XINTERANIMATE, which works simply to
view the file. Unfortunately it doesn't allowed the added capability I'm
looking for. Also I've converted the file to MPEG format, and can view it
in MPEG players, but again don't have the added features.

If you can find the image-loop viewer, I would appreciate your sending it to
me. My web searches haven't turned anything up, but maybe I can modify your
file to add some features.

"Mark Hadfield" <m.hadfield@niwa.co.nz> wrote in message
news:a7b2eh$v2i$3@newsreader.mailgate.org...
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Subject: Re: IDL Movie Viewer
Posted by Mark Hadfield on Thu, 21 Mar 2002 00:40:34 GMT
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"Phil" <plmcelwee@yahoo.com> wrote in message
news:RO8m8.530$Bd4.3473@dfw-service2.ext.raytheon.com...

> If you can find the image-loop viewer, I would appreciate your sending it
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> me. My web searches haven't turned anything up, but maybe I can modify
your
> file to add some features.

The image-loop viewer is already on my IDL page at...

  http://katipo.niwa.cri.nz/~hadfield/gust/software/idl/

I just checked it was working and updated the page. The reason I didn't
point you to the page immediately is that my software library is not a
polished, modularised set of routines like others have on the WWW. Nor has
it been widely tested. It's a conglomeration of interdependent routines and
classes in various stages of development, mostly ones I use in my day-to-day
work. I recognise that anyone else who tries to use it may well run into
some difficulties. So I'm not too eager to recommend it to anyone else. But
if you want to have a go, I'd love to hear how you get on and help if
necessary.

To use it you will *need* IDL version 5.5. (That's mainly because since
installing 5.5 on my machine I have made extensive use of the new
_STRICT_EXTRA keyword.) You should download and unpack the whole library
into your IDL path, then run the command...

  IDL> mgh_motley

to initialise it. Then try

  IDL> mgh_example_image_sequence, 0
  IDL> mgh_example_image_sequence, 1

The first displays IDL's abnorm.dat dataset in my image-sequence object, the second in XINTERANIMATE.

My image viewer does not (yet) support the operations you want. I does offer (IMHO) a very powerful interface for examining the animated sequence. (It inherits this from a superclass called MGH_Animator.)

To adjust contrast & brightness you could manipulate the palette via the "Edit Palette" menu item. There was also a discussion on this group a few months back about interactive adjustment of these image attributes via the mouse--you might want to look at that.

It would not be too difficult to examine values associated with specific pixels, either by extending the mouse-picking code or by adding a menu item to show image data in a XVAREDIT widget. I could do either or both of these quite quickly and would be willing to do it because it would be useful for me too.

Anyway, have a look & see what you think.

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Mark Hadfield
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National Institute for Water and Atmospheric Research (NIWA)

Subject: Re: IDL Movie Viewer
Posted by gerhard.holst on Thu, 21 Mar 2002 08:35:34 GMT
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"Mark Hadfield" <m.hadfield@niwa.co.nz> wrote in message
news:<a7ba6b$3al$1@newsreader.mailgate.org>...
> "Phil" <plmcelwee@yahoo.com> wrote in message
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> Anyway, have a look & see what you think.

Hi Phil and Mark,

there is also David Fannings XMovie.pro, which he calls a simplified
version of XInteranimate. I have used that and changed it a little bit
and it is not too difficult to add functionality.
What I found useful also is the Software VideoMach and Moyager from
www.grommada.com. VideoMach makes movies from sequences any format

you like and Moyager is a viewer, but not with the single pixel readout capability and the contrast change feature you like. But maybe XMovie.pro can be combined with the ContrastZoom.pro example of David Fanning.

best regards, Gerhard

Subject: Re: IDL Movie Viewer
Posted by Phil[1] on Mon, 25 Mar 2002 17:29:20 GMT
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Thanks for the responses. Unfortunately we are using IDL 5.1, and there are no plans to upgrade. I'll try the other suggestions, and try to get back to you on the results. May not get to it until next week though due to other work priorities.

"Gerhard Holst" <gerhard.holst@pco.de> wrote in message news:9fe17a3c.0203210035.4d6956b7@posting.google.com...
> "Mark Hadfield" <m.hadfield@niwa.co.nz> wrote in message news:<a7ba6b$3al$1@newsreader.mailgate.org>...
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