Subject: Re: FITS image with RA and DEC axis
Posted by Wayne Landsman on Tue, 30 Nov 2004 18:42:38 GMT
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Stefano Bianchi wrote:
>
> I have a simple practical task to perform.
> I have a fits astronomical image. I just want to zoom it as I like and
> then overplot on it x and y axis with the correct RA and DEC
> coordinates as read from the header.

You might use the procedure IMCONTOUR in the IDL Astronomy Library. This procedure provide a contour with astronomical labeling, but by providing the /NODATA keyword you can skip the contour and just do the astronomical labeling. You should display the image using one of the display program that recognize plot coordinates such as David Fanning's TVIMAGE. For example, given a FITS image, im, and header, h, the following two lines displays the image with astronomical labeling (RA and Dec).

IDL> tvimage,im,/keep_aspect, position = pos
IDL> imcontour,im,h,/nodata,/Noerase,/TYPE,position = pos

To work with zoomed images, use the procedures hextract.pro, hrebin.pro and hcongrid.pro which will, respectively, extract a subimage, REBIN or CONGRID an image while updating the FITS header so that the astrometry remains correct.

It would certainly be nice if a lot more of this work were automated (e.g. incorporated into ATV), but there haven't been any volunteers yet ;-)

Cheers, --Wayne

Subject: Re: FITS image with RA and DEC axis
Posted by David Fanning on Tue, 30 Nov 2004 19:17:59 GMT
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Wayne Landsman writes:

> It would certainly be nice if a lot more of this work were automated
> (e.g. incorporated into ATV), but there haven't been any volunteers yet ;-)

I actually have a rather long list of enhancements I've collected in the past couple of months for ATV. :-)

I've even gone so far as to look at the code and see

how hard it would be to make some small changes.
Compared to a lot of code you find on the Internet,
this code is pretty well written. Certainly it would
not be as big a chore to do this as I was afraid it
would be.

But I was more interested in building something like
ATV (with enhancements) as an example program for
my Catalyst Library code. What is slowing me down
is the time to learn about all those great Astronomy
Library routines that already do so much of the work!

I'm going to be in the Washington area the first of
the year, Wayne. Maybe we ought to get together for
a few days and see if we can work something out. :-)

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/

Subject: Re: FITS image with RA and DEC axis
Posted by mperrin+news on Tue, 30 Nov 2004 21:02:12 GMT
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David Fanning <davidf@dfanning.com> wrote:
> Wayne Landsman writes:
>
>> It would certainly be nice if a lot more of this work were automated
>> (e.g. incorporated into ATV), but there haven't been any volunteers yet ;-)
>
> I actually have a rather long list of enhancements I've
> collected in the past couple of months for ATV. :-)

In fact, there are some 'enhanced' ATV versions floating
around out there. Henry Roe added support for image cubes when
he was at Berkeley. I've since improved on that a bit, added
better color map handling (so it doesn't stomp on the color map
for the rest of IDL), more keyboard shortcuts, a mouse mode
that measures the distance between two points,
and support for displaying and overplotting polarimetry data.

Then the good folks at the Spitzer Science Center (principally Jim Brauher)

have added a plethora of additional overplotting commands, *including* a WCS coordinates grid, greatly improved the line-plotting commands, and a bunch of other little upgrades.

I've talked with Aaron Barth about contributing all my changes back into the main ATV distribution, but he's been too busy to work on bug testing all the various contributions. I'm happy to distribute the modified code, with the important disclaimer that complaints about bad code should come to me, not Aaron!

- Marshall

Subject: Re: FITS image with RA and DEC axis
Posted by stebia on Fri, 03 Dec 2004 09:21:17 GMT
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Thank you!
Hextract plus imcontour do the trick.
Marshall: I will be happy to test your code!

Stefano
