
Subject: Re: Regarding the Fit_Ellipse Program
Posted by [David Fanning](#) on Tue, 26 Feb 2008 14:46:15 GMT
[View Forum Message](#) <> [Reply to Message](#)

plim.dreaming@gmail.com writes:

> The last time I posted here I got awesome help and I have what I
> believe is a smaller problem this time.
> I am trying to use the fit_ellipse program ([http://www.dfanning.com/
ip_tips/fit_ellipse.html](http://www.dfanning.com/ip_tips/fit_ellipse.html)) and having some difficulty in that my ROI is
> a contour defined by a 2-D array and not a 1-D array of pixels.
> My 2-D array contains the x and y positions of all the points along
> that contour (or ROI) so I am trying to translate this fit_ellipse
> program to something I can use.

Use your contour with POLYFILLV to get the indices inside the contour. (Or, put your contour into an IDLanROI object and use the inherit methods there to do the same, with slightly different results.) Then, you can create the "blob" that works with FIT_ELLIPSE. I personally feel a bit more secure with the IDLarROI method, but I've used both. I've convinced myself that both methods are "accurate," whatever that means. :-)

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Regarding the Fit_Ellipse Program
Posted by [plim.dreaming](#) on Tue, 26 Feb 2008 16:57:08 GMT
[View Forum Message](#) <> [Reply to Message](#)

Thanks David,
I finally got the polyfillv to work (after converting my data to device coordinates) but it won't plot because of memory (unable to allocate memory to make array). I imagine this may be related to the fact that the !d.x_size is 17780. Am I wrong in thinking this? I generally see the device size as being 512.
And I am new to IDLanROI so I have been reading through http://www.physics.nyu.edu/grierlab/idl_html_help/objects_an3.html and am still at a loss as to how I can convert the contour plot into a ROI and fit an ellipse to it... any links to tutorial pages would be

stellar! I think I am at a similar stage of confusion as this one guy whose post I found and paste below:

David Fanning wrote:

- > Hi Folks,
- >
- > Alright, who can explain these damn IDLanROI objects to me!?
- > They look like just what I need, if I could figure out
- > how they work. :-(
- >
- > I'm trying to select and classify regions in an image.
- >
- > Thanks for any hints.
- >
- > David

Thanks again,
Bruno

Subject: Re: Regarding the Fit_Ellipse Program
Posted by [David Fanning](#) on Tue, 26 Feb 2008 20:44:00 GMT
[View Forum Message](#) <> [Reply to Message](#)

plim.dreaming@gmail.com writes:

- > I finally got the polyfillv to work (after converting my data to
- > device coordinates) but it won't plot because of memory (unable to
- > allocate memory to make array). I imagine this may be related to the
- > fact that the !d.x_size is 17780. Am I wrong in thinking this?

Wow! Where do you work that they bought you a monitor as big as a city block!?

What, exactly, did you try to "plot", and what commands did you use to do it?

- > I generally see the device size as being 512.
- > And I am new to IDLanROI so I have been reading through
- > http://www.physics.nyu.edu/grierlab/idl_html_help/objects_an3.html
- > and am still at a loss as to how I can convert the contour plot into a
- > ROI and fit an ellipse to it... any links to tutorial pages would be
- > stellar! I think I am at a similar stage of confusion as this one guy
- > whose post I found and paste below:

You see! These are so easy *anyone* can learn to use them. ;-)

When I was learning to use them, I was still intimidated

by people throwing big words around (polymorphism, inheritance, etc.). Once I learned they were talking about IDL procedures and functions, I was fine. Basically, I just load the polygon (the output from your contour plot) into them in the INIT method, and then I use the method ComputeMask in place of POLYFILLV and the method ComputeGeometry for everything else I need to know. It really is very, very simple.

If you can't figure it out in five minutes, let me know, and I'll see if I can scare up an example.

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming (www.dfanning.com)
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Regarding the Fit_Ellipse Program
Posted by [plim.dreaming](#) on Tue, 26 Feb 2008 21:38:29 GMT
[View Forum Message](#) <> [Reply to Message](#)

So, I used contour to obtain the x and y positions of a certain contour level and labeled those arrays as posx and posy. then obtained the positions in terms of the device, because that is what polyfillv uses:

```
D = convert_coord(posx,posy, /to_device)
```

I did a print,!D.x_size to get the device sizes (it gave me the famous 17780) so I did:

```
result = polyfillv(D(0,*),D(1,*),17780,17780)  
plots,fit_ellipse(result)
```

It is unable to allocate memory for the fit_ellipse part.
Is the !D.x_size related to the monitor size or the monitor resolution or the postscript resolution or non-of-the-above?

And with the IDLanROI I finally made the object
blob = OBJ_NEW('IDLanROI', posx, posy) and have to say that I certainly was/am scared by wording such as: "Init methods are special life cycle methods...!?"

I am right now trying to figure out how to type in this new language
Result = Obj->[IDLanROI:]ComputeMask(
to get from here to fitting an ellipse to the object and getting the semi-major and semi-minor axis.

Much thanks,
"Bruno Schmidt of Northern Florida State University"

- so honey what did you do at work all day today?
 - oh, i drew an ellipse...
-