
Subject: Re: ROI outlining of 3D volumes (multi-slice 2D)
Posted by [David Fanning](#) on Mon, 28 Apr 2008 19:02:09 GMT
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stefan writes:

- > I need to create a tool that allows fast outlining of multi-slice MRI
- > data. XROI is rather nice but only allows 2D arrays. Rather than re-
- > inventing the wheel, I'd like to ask whether someone has done
- > something similar before and is willing to share. Ideally, I'd like a
- > tool to
- > allow the definition of (multiple) ROIs,
- > saving and retrieving them,
- > as well as windowing (contrast/brightness adjustment) of the
- > underlying image,
- > all while paging through multiple slices of the image stack.

I'm not sure about "sharing", but if you were talking about "buying" I have something that could be whipped into shape for you pretty easily.

This little application takes an MRI image stack and allows the user to quickly outline a region of interest on the image. An active contour then "snugs up" the contour around the region of interest. The user (or technician in this case) can then "edit" the fit, as required.

When all is ready, the contour is then applied to the next image, active contouring is applied, etc. The data inside the ROI is set aside for further statistical processing, etc.

It was designed to be used by a lab technician in a clinical setup and seemed to work about as well as expected.

Cheers,

David

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David Fanning, Ph.D.

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: ROI outlining of 3D volumes (multi-slice 2D)
Posted by [Loren Anderson](#) on Mon, 28 Apr 2008 21:40:57 GMT
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Well, it may not be quite what you are looking for, but I have written

a program that does basically what you need. It's located at <http://people.bu.edu/andersld/>. It is set up for astronomical cubes where the third axis is velocity, but should work with any cube. I can guarantee that it won't be as slick as David's, and will contain more bugs. You can adjust the contrast/brightness and save/restore regions though.

I am in the middle of updating the program and will have a new version out in a month or so, which should be much improved.

-Loren
