
Subject: Re: ROI application...

Posted by [Dick Jackson](#) on Wed, 02 Oct 2002 20:46:34 GMT

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"Richard Tyc" <richt@sbr.ca> wrote in message
news:hjlm9.16622\$0c5.3655@news2.mts.net...

> Application Question:

>

> Which tools, functions objects etc could be used to the following
image

> processing task:

>

> Highlight a region within an image with a solid color based on a
signal

> value range and then create a boundary line around this region (ROI).
We

> hope to use IDL to perform what an existing medical workstation does
for one

> specific task - highlight a region within a greyscale MRI image (eg. a
> tumour) to generate a boundary curve based on the relative intensity
of the

> pixels associated with the ROI.

> Lets say the tumor represented pixel intensity levels of 155-200. If
we set

> all pixels in this range to be red, we then need to generate a
boundary

> curve outlining this 'red' region.

>

> Could IDLgrROI and LABEL_REGION do this ?

For some great insight as to what IDLgrROIs can do, try out

IDL> XROI, /Test

Grab the pencil tool, draw an ROI in that 'flat' area of the image on
the far right, use right-mouse on the ROI edge you just drew, choose
Grow Region:By Threshold, and see if that's the kind of thing you're
looking for. (it uses the min/max of the area *you* drew and grabs any
neighboring pixels in that range) The boundary is done (as David
mentioned as a possibility) by a Contour command. You can find how they
did it in IDL's lib/utilities/XROI.pro, procedure xroi__GrowSelectedROI.

Even if you don't use Object Graphics, the IDLanROI class ("analysis"
class from which "graphics" class IDLgrROI inherits) is very useful for
working with ROIs.

Cheers,

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-Dick

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