Subject: Re: Ongoing Object Graphics Quest
Posted by David Fanning on Mon, 19 Nov 2001 14:48:30 GMT
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Martin Downing (martin.downing@ntlworld.com) writes:

> Oh I see - its actually the other way round. The drawn rubber band, defined
> as "theBox", does not draw round the top-right corner of the top right
> pixel.
> You could round this up like for instance:
>
>   box_x0 = min([info.xs, info.xd])
>   box_x1 = max([info.xs, info.xd])+1
>   box_y0 = min([info.ys, info.yd])
>   box_y1 = max([info.ys, info.yd])+1
>
>   box[0,*] = [box_x0,box_x1,box_x1,box_x0,box_x0]
>   box[1,*] = [box_y0,box_y0,box_y1,box_y1,box_y0]
>
>   info.theBox->SetProperty, Data=box

Actually, I think it is a little more pernicious
than this. :-)

The problem is that I get a location in the window,
but what I want is an image subscript. If I have two
locations in the window (e.g. a line), those endpoints
are one pixel longer than the subscripts that I need.

But here is the dilemma: which end of the line should
I subtract one from (or add one to)? It depends on
how you have drawn the line (e.g. right to left, or
left to right) and whether one end of the line is
on the image boundary. I think there must be at
least eight possibilities you have to check to be
able to get your box boundaries correct.

Rather than doing this, I elected to take the FLOOR
of all points, since this always keeps me inside the
image. The downside is that I often get one more
row and one more column of the image in the zoom
than I really wanted. For the images I work with,
this is really not a concern, since one extra row
or column in a 512x512 image is almost invisible.

But when you work with images with really big pixels
(e.g., image = Findgen(5, 6)), then the problem
becomes obvious. I'll probably have to fix it, but

it may have to wait a couple of days. I really have
to get some real work done today.

> 2) The extent of contrast and brightness stretching
> appears to be restricted when the left image has been zoomed

I don't think so, since there is no connection at all
between what is happening in the zoom window and the
contrast/brightness algorithm.

I appreciate the help.

Best Regards,

David

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