Subject: Interesting IDLgrContour Bug Posted by davidf on Tue, 19 Sep 2000 07:00:00 GMT

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Hi Folks,

I ran into an interesting little IDLgrContour bug today that gave me a few hours of fun. Apparently, the contour algorithm cannot see positive data that is less than 1. As a result, it reports the contour range incorrectly. Here is a very short example:

```
; Create test data.
data = Dist(40)

; Normalize the Y values from 20 to 39 to be less than 0.
data[*,20:39] = data[*,20:39]/Max(data)

; Create contour plot.
x = findgen(40)
y = findgen(40)
theContour = Obj_New('IDLgrContour', data, Geomx=x, Geomy=y)

; Get the Y range of the data.
theContour->GetProperty, YRange=theBadRange
; Print it. Expect 0 to 39.

Print, theBadRange
0.000000 19.8495
```

Whoops! Of course, this will cause the scaling to be completely off when you go to put the plot into your view.

The work around is to get the contour range from the X and Y vectors. I don't think too many people will run into this, but it can be distracting. :-)

I've tested this in IDL 5.3.1 and IDL 5.4 beta on Windows NT 4.0.

Cheers.

David

--

David Fanning, Ph.D. Fanning Software Consulting

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

Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: Interesting IDLgrContour Bug Posted by Harold Cline on Sat, 23 Sep 2000 07:00:00 GMT View Forum Message <> Reply to Message

Thank you very much for understanding and also for being persistent in plowing through this with us.

Have a great weekend, Harold Cline, RSI

David Fanning wrote:

>

> Harold Cline (harold@rsinc.com) writes:

>

- >> The bug itself is already being investigated, I wanted to follow-up on
- >> the customer service issue.

>>

- >> Upon investigating the reply, I find that it was simply a
- >> miscommunication. My apologies to David if he felt he was being brushed
- >> aside. The tech support engineer intended to convey that it is beyond
- >> the scope of technical support to address a bug when it is presented
- >> within a large section of code or an application. In order to
- >> effectively deal with the bug, we need to be presented with the smallest
- >> possible case or example which illustrates the bug. Please refer to
- >> this tech tip for details:
- >> http://www.researchsystems.com/services/output.cfm?tip_id=29 88.

>>

- >> I apologize for this misundertanding and am in turn following up with
- >> technical support to make sure that we do not cause a similar
- >> misunderstanding in the future.

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- > The misunderstanding was probably entirely my fault.
- > I discovered the problem in an IDL graphics objects
- > program, which--as anyone who has written one knows--
- > can be quite large. However, the suspect code was
- > quite small and isolated to just 8-10 lines in the
- > larger program. I wrote a small test program to
- > illustrate the differences between the object program
- > and identical code in a direct graphics contour plot,
- > and I offered an explanation of what I thought was the
- > problem with the IDLgrContour object.

>

> But what I probably failed to do was indicate as clearly

- > as I could have where the isolated code was in the
- > larger program. I frankly don't blame the engineer
- > for telling me to spend some more time on it. I think
- > I would have done the same thing under the circumstances.

>

- > Subsequent discussions with RSI engineers about the
- > problem have, of course, proved once again that nothing
- > with computer software is as simple as it seems. But
- > I think we have all come to a better understanding of
- > what the problem is. I now understand *why* the problem
- > occurs and can see that RSI has reasonable arguments
- > for how the contour object works. I think I demonstrated
- > to their satisfaction that under particular circumstances
- > their approach doesn't produce the expected result. I'm
- > perfectly satisfied now that we both understand one another.

>

> Cheers,

>

> David

>

- > --
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Subject: Re: Interesting IDLgrContour Bug Posted by Harold Cline on Sat, 23 Sep 2000 07:00:00 GMT View Forum Message <> Reply to Message

Hi David & Pavel,

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Best Regards, Harold Cline IDL Product Manager

Pavel Romashkin wrote:

```
Harold Cline wrote:
>>
>> I will be investigating this.
>
Investigating the reply or the bug, Harold? :-)
>
No offense meant. I'm afraid I'm addicted to IDL, too :-(
>
Cheers,
Pavel
```