
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

Subject: Re: Interesting IDLgrContour Bug
Posted by [Harold Cline](#) on Sat, 23 Sep 2000 07:00:00 GMT
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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=2988.
>>
>> I apologize for this misunderstanding and am in turn following up with
>> technical support to make sure that we do not cause a similar
>> misunderstanding in the future.
>
> 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
>
> --
> David Fanning, Ph.D.
> Fanning Software Consulting
> Phone: 970-221-0438 E-Mail: davidf@dfanning.com
> 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 [davidf](#) on Sat, 23 Sep 2000 07:00:00 GMT
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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
