Subject: Flaw found in histogram on Red Hat Linux Posted by mitch grunes on Wed, 14 Jun 2000 07:00:00 GMT

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Under some conditions, the histogram function causes IDL to crash with a corrupt array descriptor. I was unable to duplicate the error on other platforms with older versions of IDL and PV-WAVE.

I would be curious to know if anyone could test this on a version of PV-WAVE for Linux, or on recent versions of IDL on other platforms.

-----Begin Included Program------

```
; Attempt by mitch grunes to make IDL histogram fail
 with a corrupt array descriptor.
The failure is noted on Red Hat Linux 6.0 or Mandrake
: Linux 7.1 with IDL 5.2 or 5.3.
:=====Subroutine======
 pro test1,a
 bot=min(a)
 top=max(a)
 bin=(top-bot)/4000
 hist=histogram(a,min=bot,max=top,bin=bin)
 end
;======Main Program======
 for i=0,1000 do begin
  print,i
  a=randomu(seed, 1540, 704)
  test1.a
 endfor
 end
```

I was able to get around the error by bumping top up a little, but that seems unsatisfactory.

-----End Included Program-----

(I have noted in the past that histogram returned incorrect values [total of histogram does not equal # of elements] when handling arrays on the order of 100,000,000 elements, as though they maybe used floating point counters instead of integral. I think it may have been implemented a bit sloppily in general.)

Subject: Re: Flaw found in histogram on Red Hat Linux Posted by Vincent Favre-Nicolin on Thu, 15 Jun 2000 07:00:00 GMT View Forum Message <> Reply to Message

```
grunes@yahoo.com wrote:
```

- > Under some conditions, the histogram function causes IDL
- > to crash with a corrupt array descriptor. I was unable to
- > duplicate the error on other platforms with older versions
- > of IDL and PV-WAVE.

>

- > I would be curious to know if anyone could test this on
- > a version of PV-WAVE for Linux, or on recent versions of
- > IDL on other platforms.

```
On IDL 5.3 (demo), it crashes:
```

IDL> .run test2

% Compiled module: TEST1.

% Compiled module: \$MAIN\$.

0

1

3

4

5

6

7

8

9

10

11

% Array has a corrupted descriptor: HIST.

% Execution halted at: TEST1 11

/home/vincent/idl/perso/test2.pro

% \$MAIN\$ 16

/home/vincent/idl/perso/test2.pro

--

Vincent Favre-Nicolin

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Subject: Re: Flaw found in histogram on Red Hat Linux Posted by R on Thu, 15 Jun 2000 07:00:00 GMT

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```
Hi.
this program ran with not a problem on Win NT WS4.0 SP5, with IDL 5.2.1.
(i.e. no "corrupt array descriptor")
Cheers,
bob stockwell
stockwell at co-ra dot com
<qrunes@yahoo.com> wrote in message news:8i8im3$8u2$1@nnrp1.deja.com...
> Under some conditions, the histogram function causes IDL
> to crash with a corrupt array descriptor. I was unable to
> duplicate the error on other platforms with older versions
> of IDL and PV-WAVE.
>
> I would be curious to know if anyone could test this on
> a version of PV-WAVE for Linux, or on recent versions of
> IDL on other platforms.
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  pro test1,a
  bot=min(a)
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   bin=(top-bot)/4000
   hist=histogram(a,min=bot,max=top,bin=bin)
>
>
> ;======Main Program=======
  for i=0,1000 do begin
>
    print,i
>
    a=randomu(seed,1540,704)
>
    test1,a
>
   endfor
>
   end
>
 -----End Included Program-----
>
> I was able to get around the error by bumping top up a
 little, but that seems unsatisfactory.
```

- > (I have noted in the past that histogram returned
- > incorrect values [total of histogram does not equal
- > # of elements] when handling arrays on the order
- > of 100,000,000 elements, as though they maybe used
- > floating point counters instead of integral.
- > I think it may have been implemented a bit sloppily
- > in general.)

>

>

- > Sent via Deja.com http://www.deja.com/
- > Before you buy.

Subject: Re: Flaw found in histogram on Red Hat Linux Posted by mitch grunes on Fri, 16 Jun 2000 07:00:00 GMT View Forum Message <> Reply to Message

I submitted a software trouble report.

IDL says it is in the Linux version, and was fixed in version 5.4.

Sorry--I should have looked to see if IDL had been updated.

Sent via Deja.com http://www.deja.com/ Before you buy.

Subject: Re: Flaw found in histogram on Red Hat Linux Posted by Luis Alonso on Fri, 16 Jun 2000 07:00:00 GMT View Forum Message <> Reply to Message

I run the code in a WinNT4.0, IDL5.0 and found no trouble at all

but yes, i found some troubles myself with the Histogram function.

Luis Alonso