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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
```

-----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.)

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Subject: Re: Flaw found in histogram on Red Hat Linux  
Posted by [Vincent Favre-Nicolin](#) on Thu, 15 Jun 2000 07:00:00 GMT  
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grunes@yahoo.com wrote:

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- > to crash with a corrupt array descriptor. I was unable to
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- >
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- > 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
  2
  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
```

--

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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

<grunes@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.

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> I would be curious to know if anyone could test this on  
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> -----Begin Included Program-----  
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> ;=====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
```

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

> I was able to get around the error by bumping top up a  
> little, but that seems unsatisfactory.  
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> (I have noted in the past that histogram returned  
> incorrect values [total of histogram does not equal  
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Subject: Re: Flaw found in histogram on Red Hat Linux  
Posted by [mitch grunes](#) on Fri, 16 Jun 2000 07:00:00 GMT  
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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.

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Subject: Re: Flaw found in histogram on Red Hat Linux  
Posted by [Luis Alonso](#) on Fri, 16 Jun 2000 07:00:00 GMT  
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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

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