
Subject: Re: Bug in STRMID system routine

Posted by [David Fanning](#) on Thu, 13 Dec 2012 19:48:04 GMT

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Heinz Stege writes:

> strmid needs a bug fix. When I start with a very long string
> a=string(byte(randomu(seed,1024^2*10)*(127.-32.))+32b)
> and then extract a short substring
> b=strmid(a,1,2)
> the result b needs 10 MB of memory. As much as the original string a.
>
> This overhead of memory can be released by a statement like b=b[0] or
> b=b+". However this is only a workaround and should be fixed in the
> system routine itself.
>
> A demo is attached below.

I ran the demo on a Windows 7 64-bit OS with IDL 8.2.1.
It appears the bug is fixed, because the example with
a small string took a small amount of memory, rather than
the large amount you report.

The last example, though, completely and utterly locked up
my machine. No Task Manager, no nothing, requiring a hard
reboot and cost me about an hour's worth of work. Not too
excited about that. :-(

Cheers,

David

--

David Fanning, Ph.D.

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Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Sepore ma de ni tue. ("Perhaps thou speakest truth.")

Subject: Re: Bug in STRMID system routine

Posted by [Heinz Stege](#) on Thu, 13 Dec 2012 20:04:14 GMT

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Hi David.

On Thu, 13 Dec 2012 12:48:04 -0700, David Fanning wrote:

> The last example, though, completely and utterly locked up
> my machine. No Task Manager, no nothing, requiring a hard

> reboot and cost me about an hour's worth of work. Not too
> excited about that. :-(
>
Sorry for that. Here I get a simple error message, that IDL is unable
to allocate memory. I would have told, if there were serious problems.

Here is the complete output:

```
IDL> strmid_demo
% Compiled module: STRMID_DEMO.
```

Starting with:

```
heap memory used: 728889, max: 753748, gets: 1078, frees:
238
```

The string needs about 10485760 bytes:

```
heap memory used: 11214886, max: 53158085, gets: 1083, frees:
241
```

A small substring needs the same amount of memory as the original
string:

```
heap memory used: 21707071, max: 21707071, gets: 1087, frees:
242
```

The memory can be released by a simple operation:

```
heap memory used: 11221313, max: 21707082, gets: 1088, frees:
243
```

The following is slow, but works:

```
heap memory used: 11276405, max: 21762174, gets: 3090, frees:
1243
```

... and this probably runs into a memory allocation error (if you
don't have tons of RAM):

```
% Unable to allocate memory: to duplicate string.
```

```
Not enough space
```

```
% Execution halted at: STRMID_DEMO      29
```

```
F:\home\idl\comp.lang.idl-pvwave\strmid_demo.pro
```

```
%          $MAIN$
```

```
IDL>
```

Cheers, Heinz
