Subject: Bug in STRMID system routine
Posted by Heinz Stege on Thu, 13 Dec 2012 19:26:30 GMT
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Hi all,

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.

!version={x86 Win32 Windows Microsoft Windows 8.0.1 Oct 5 2010 32 64}

Cheers, Heinz

```
pro strmid_demo

compile_opt defint32,strictarr,logical_predicate

print,form='(%"\nStarting with:")'
help,/mem

a=string(byte(randomu(seed,1024^2*10)*(127.-32.))+32b)
print,form='(%"\nThe string needs about %d bytes:")',$
  strtrim(strlen(a),2)
help,/mem

print,form='(%"\nA small substring needs the same amount of memory '+$
  'as the original string:")'
b=strmid(a,1,2)
help,/mem

print,form='(%"\nThe memory can be released by a simple operation:")'
b+=''
help,/mem

print,form='(%"\nThe following is slow, but works:")'
p=ptrarr(1000,/alloc)
for i=0,n_elements(p)-1 do *p[i]=strmid(a,i,2)+''
help,/mem
```

```
print,form='(%"\n... and this probably runs into a memory '+$
   'allocation error (if you don''t have tons of RAM):")'
for i=0,n_elements(p)-1 do *p[i]=strmid(a,i,2)
help,/mem

end
```