Subject: Re: Scope_Varfetch "IDL workbench" train wreck
Posted by Foldy Lajos on Wed, 18 Nov 2009 19:01:42 GMT
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On Wed, 18 Nov 2009, wlandsman wrote:

> Of course, when I tested this, a run that took under 1 second from the
> command prompt completely hung my Mac (x86_64 darwin unix Mac OS X
> 7.1 Apr 21 2009 64 64) when run from the Workbench.   My Linux box
> was not quite as bad but also eventually hung with messages such as
>
> java.lang.OutOFMemoryError: unable to create new native thread
> java.lang.ArrayIndexOutOfBoundsException: 2601
>
> The culprit apparently is my use of SCOPE_VARFETCH.   readcol.pro
> calls SCOPE_VARFETCH thousands of time for a large file, since it
> writes data directly into the output variables, and uses a
> SCOPE_VARFETCH call for each item written.
>
>
> Below is a little test program to be called with
> IDL> test, x1,x2,x3,x4,x5,x6,x7,x8,x9
>
> I find it runs instantly from the IDL command line but takes very long
> or hangs the IDL workbench.   --Wayne
>
>
> pro test,a,b,c,d,e,f,g,h,j
>
> vv = ['a','b','c','d','e','f','g','h','j']
> for k=0,8 do begin   ;Create output variables
>   res = execute(vv[k] + '=fltarr(5000)')
> endfor
> for jj=0,4999 do for k=0,8 do (scope_varfetch(vv[k],Level=0))[jj]=float(jj)
> return
> end

There is no time difference between the CLI and GUI runs in IDL 7.0 on 64
bit linux. (It's a fresh openSUSE 11.2 machine with the OpenJDK 1.6 java
environment.)

Temporary buffers will solve your problem:

pro test,a,b,c,d,e,f,g,h,j

vv = ['a','b','c','d','e','f','g','h','j']

ptmp=ptrarr(9)

```
for k=0,8 do begin                    ;Create output variables
   ptmp[k] = ptr_new(fltarr(5000))
endfor

for jj=0l,4999 do for k=0,8 do (*(ptmp[k]))[jj]=float(jj)

for k=0,8 do begin
   (scope_varfetch(vv[k],Level=0))=temporary(*(ptmp[k]))
endfor

ptr_free, ptmp

return
end
```

(Even the EXECUTEs have vanished :-)

regards,
lajos