

Ruby - Bug #9599

Fiddle::Function#call leaks memory

03/06/2014 04:08 AM - nobu (Nobuyoshi Nakada)

Status:	Closed	Backport: 1.9.3: UNKNOWN, 2.0.0: DONE, 2.1: DONE
Priority:	Normal	
Assignee:	tenderlovmaking (Aaron Patterson)	
Target version:	2.2.0	
ruby -v:	r45270	

Description

Fiddle::Function#call seems leaking memory.

With the following code:

```
# fiddle-memleak.rb
require 'fiddle'
n = 10
a = ["a"] * n
f = Fiddle::Function.new(Fiddle.dlopen(nil) ["rb_obj_tainted"], [Fiddle::TYPE_VOIDP]*n, Fiddle::TYPE_VOID)
loop {f.call(*a); GC.start}
```

VSZ and RSS increase continuously.

```
$ ruby fiddle-memleak.rb & while ps -ovsz=rss= $!; do sleep 1; done
[1] 93595
2423344      24
2461024     8884
2463072    10420
2464096    11940
2465120    13428
2467168    14948
2468192    16476
2469216    17980
2471264    19432
2473312    20940
2474336    22424
2475360    23936
2478432    25468
2481504    26996
2482528    28468
2483552    29984
2485600    31524
2486624    33056
2487652    34568
2488676    36100
2490724    37628
2491748    39152
```

RGenGC seems unrelated since the result in 2.0.0 is similar.

Associated revisions

Revision ff84a6a2e7904a5f6cf7d778c6b9f7af4c87d818 - 03/08/2014 04:46 AM - nobu (Nobuyoshi Nakada)

ext/dl, ext/fiddle: fix memory leak

- ext/dl/cptr.c (dlptr_free), ext/dl/handle.c (dlhandle_free), ext/fiddle/handle.c (fiddle_handle_free), ext/fiddle/pointer.c (fiddle_ptr_free): fix memory leak. based on the patch Heesob Park at [ruby-dev:48021] [Bug #9599].

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@45291 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision ff84a6a2 - 03/08/2014 04:46 AM - nobu (Nobuyoshi Nakada)

ext/dl, ext/fiddle: fix memory leak

- ext/dl/cptr.c (dlptr_free), ext/dl/handle.c (dlhandle_free), ext/fiddle/handle.c (fiddle_handle_free), ext/fiddle/pointer.c (fiddle_ptr_free): fix memory leak. based on the patch Heesob Park at [ruby-dev:48021] [Bug #9599].

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@45291 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision cb05f199ee303448129a84d07a2ca698890f4c1f - 03/09/2014 04:19 AM - nobu (Nobuyoshi Nakada)

tests for [Bug #9599]

- test/dl/test_{cptr,handle}.rb: tests for [Bug #9599].
- test/fiddle/test_{handle,pointer}.rb: ditto.

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@45299 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision cb05f199 - 03/09/2014 04:19 AM - nobu (Nobuyoshi Nakada)

tests for [Bug #9599]

- test/dl/test_{cptr,handle}.rb: tests for [Bug #9599].
- test/fiddle/test_{handle,pointer}.rb: ditto.

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@45299 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision e7ee0b13d63325254c8efae2fe4d7c5d9a909608 - 03/20/2014 11:50 AM - nagachika (Tomoyuki Chikanaga)

merge revision(s) r45298: [Backport #9599]

```
test/ruby/envutil.rb: compare RSS to check memory leak
```

```
* test/ruby/envutil.rb (Test::Test#assert_no_memory_leak): compare
```

also RSS if available.

```
* test/ruby/memory_status.rb (Memory::Status.parse): read string
```

form of an instance.

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_2_0_0@45372 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision e7ee0b13 - 03/20/2014 11:50 AM - nagachika (Tomoyuki Chikanaga)

merge revision(s) r45298: [Backport #9599]

```
test/ruby/envutil.rb: compare RSS to check memory leak
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```
* test/ruby/envutil.rb (Test::Test#assert_no_memory_leak): compare
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also RSS if available.

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* test/ruby/memory_status.rb (Memory::Status.parse): read string
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git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_2_0_0@45372 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision fd2d57979face0e161b9a5aa3122abfe00a4819c - 03/21/2014 03:34 PM - nagachika (Tomoyuki Chikanaga)

merge revision(s) r45311: [Backport #9599]

```
r45298 fix trivial bug
```

```
$initial_size must be a size, not a status
```

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_2_0_0@45379 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision fd2d5797 - 03/21/2014 03:34 PM - nagachika (Tomoyuki Chikanaga)

merge revision(s) r45311: [Backport #9599]

```
r45298 fix trivial bug
```

```
$initial_size must be a size, not a status
```

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_2_0_0@45379 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision acd893d1755cc87542f36131f40c9c3f0aa5bc04 - 05/04/2014 05:32 PM - nagachika (Tomoyuki Chikanaga)

merge revision(s) r45291,r45299,r45314,r45325: [Backport #9518]

```
* ext/dl/cptr.c (dlptr_free), ext/dl/handle.c (dlhandle_free),
  ext/fiddle/handle.c (fiddle_handle_free),
  ext/fiddle/pointer.c (fiddle_ptr_free): fix memory leak.
  based on the patch Heesob Park at [ruby-dev:48021] [Bug #9599].
```

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_2_1@45820 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision acd893d1 - 05/04/2014 05:32 PM - nagachika (Tomoyuki Chikanaga)

merge revision(s) r45291,r45299,r45314,r45325: [Backport #9518]

```
* ext/dl/cptr.c (dlptr_free), ext/dl/handle.c (dlhandle_free),
  ext/fiddle/handle.c (fiddle_handle_free),
  ext/fiddle/pointer.c (fiddle_ptr_free): fix memory leak.
  based on the patch Heesob Park at [ruby-dev:48021] [Bug #9599].
```

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_2_1@45820 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 5222cc1eac378cf3a0799cb615c646a21eedaf21 - 06/23/2014 07:52 AM - U.Nakamura

merge revision(s) 45291,45299,45314,45325: [Backport #9599]

```
* ext/dl/cptr.c (dlptr_free), ext/dl/handle.c (dlhandle_free),
  ext/fiddle/handle.c (fiddle_handle_free),
  ext/fiddle/pointer.c (fiddle_ptr_free): fix memory leak.
  based on the patch Heesob Park at [ruby-dev:48021] [Bug #9599].
```

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_2_0_0@46508 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 5222cc1e - 06/23/2014 07:52 AM - U.Nakamura

merge revision(s) 45291,45299,45314,45325: [Backport #9599]

```
* ext/dl/cptr.c (dlptr_free), ext/dl/handle.c (dlhandle_free),
  ext/fiddle/handle.c (fiddle_handle_free),
  ext/fiddle/pointer.c (fiddle_ptr_free): fix memory leak.
  based on the patch Heesob Park at [ruby-dev:48021] [Bug #9599].
```

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_2_0_0@46508 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

History

#1 - 03/06/2014 07:14 AM - phasis68 (Heesob Park)

Because Fiddle::Pointer class was allocated with TypedData_Make_Struct macro, it must be freed with ruby_xfree. Same applies to ext/fiddle/handle.c, ext/dl/cptr.c and ext/dl/handle.c. Here is a patch.

```
diff --git a/pointer.c b/pointer.c
index 0a914dd..99c7596 100644
--- a/pointer.c
+++ b/pointer.c
@@ -65,6 +65,7 @@ fiddle_ptr_free(void ptr)
  ((data->free))(data->ptr);
 }
```

- ruby_xfree(ptr);

```
static size_t
```

#2 - 03/08/2014 04:47 AM - nobu (Nobuyoshi Nakada)

- Status changed from Assigned to Closed
- % Done changed from 0 to 100

Applied in changeset r45291.

ext/dl, ext/fiddle: fix memory leak

- ext/dl/cptr.c (dlptr_free), ext/dl/handle.c (dlhandle_free),
ext/fiddle/handle.c (fiddle_handle_free),
ext/fiddle/pointer.c (fiddle_ptr_free): fix memory leak.
based on the patch Heesob Park at [\[ruby-dev:48021\]](#) [Bug [#9599](#)].

#3 - 03/08/2014 02:42 PM - nagachika (Tomoyuki Chikanaga)

- Backport changed from 1.9.3: UNKNOWN, 2.0.0: UNKNOWN, 2.1: UNKNOWN to 1.9.3: UNKNOWN, 2.0.0: REQUIRED, 2.1: REQUIRED

#4 - 03/09/2014 12:50 PM - nagachika (Tomoyuki Chikanaga)

Add r45301

#5 - 03/20/2014 12:11 PM - nagachika (Tomoyuki Chikanaga)

r40930 and r45298 were backported to ruby_2_0_0 (at r45371 and r45372) to resolv conflicts.

And I want to backport r45291, r45299, r45301, r45314, r45315 and r45325, but with them dl and fiddle tests fail. I wonder if there are any other memory leaks.

#6 - 03/21/2014 03:36 PM - nagachika (Tomoyuki Chikanaga)

r45311 was also backported to ruby_2_0_0. It fixes a bug introduced by r45298.

#7 - 05/04/2014 05:33 PM - nagachika (Tomoyuki Chikanaga)

- Backport changed from 1.9.3: UNKNOWN, 2.0.0: REQUIRED, 2.1: REQUIRED to 1.9.3: UNKNOWN, 2.0.0: REQUIRED, 2.1: DONE

r45291, r45299, r45314 and r45325 were backported into ruby_2_1 at 45820.

#8 - 06/23/2014 07:53 AM - usa (Usaku NAKAMURA)

backported into ruby_2_0_0 at r46508.

#9 - 06/23/2014 07:53 AM - usa (Usaku NAKAMURA)

- Backport changed from 1.9.3: UNKNOWN, 2.0.0: REQUIRED, 2.1: DONE to 1.9.3: UNKNOWN, 2.0.0: DONE, 2.1: DONE