

Ruby - Bug #19906

fix kwarg memory leak

09/29/2023 11:02 PM - HParker (Adam Hess)

Status:	Closed	Backport: 3.0: UNKNOWN, 3.1: UNKNOWN, 3.2: UNKNOWN
Priority:	Normal	
Assignee:		
Target version:		
ruby -v:		

Description

GitHub PR: <https://github.com/ruby/ruby/pull/8556>

ci info tracks kwargs and which are shared across aliases

```
30.times do
  100_000.times do
    def foo(k:); yield; end
    alias bar foo

    undef foo
  end
  puts `ps -o rss= -p #{$$}`
end
```

before:

```
30364
45120
59700
73932
88512
102680
116884
130884
145308
159688
174468
188680
203016
216908
231568
246096
260592
274900
289168
303420
317620
331956
346148
360708
374880
389172
403472
417824
432016
446040
460196
474604
489152
503248
517504
```

after:

Related issues:

Closed

Revision c74dc8b4af4ef1b32f65587f083fbeba4ca186fa - 10/01/2023 02:55 PM - HParker (Adam Hess)

[bug #19906]

Co-authored-by: Peter Zhu peter@peterzhu.ca

Revision c74dc8b4af4ef1b32f65587f083fbeb4ca186fa - 10/01/2023 02:55 PM - HParker (Adam Hess)

Tracks other callinfo that references the same kvars and frees them when all references are cleared.

[bug #19906]

Co-authored-by: Peter Zhu peter@peterzhu.ca

Revision c74dc8b4 - 10/01/2023 02:55 PM - HParker (Adam Hess)

Use reference counting to avoid memory leak in kwargs

Tracks other callinfo that references the same kwargs and frees them when all references are cleared.

[bug #19906]

Co-authored-by: Peter Zhu peter@peterzhu.ca

Revision ec3d81629ff193e847dcab9afb20dffa14f2582a - 10/01/2023 02:58 PM - nobu (Nobuyoshi Nakada)

[Bug #19906] Add the test

Revision ec3d81629ff193e847dcab9afb20dffa14f2582a - 10/01/2023 02:58 PM - nobu (Nobuyoshi Nakada)

[Bug #19906] Add the test

Revision ec3d8162 - 10/01/2023 02:58 PM - nobu (Nobuyoshi Nakada)

[Bug #19906] Add the test

History

#1 - 09/30/2023 04:45 AM - nobu (Nobuyoshi Nakada)

I can't reproduce it on {arm64,x86_64}-{darwin,linux}.

#2 - 10/01/2023 02:55 PM - HParker (Adam Hess)

- Status changed from Open to Closed

Applied in changeset [git|c74dc8b4af4ef1b32f65587f083fbeba4ca186fa](https://github.com/ruby/ruby/commit/c74dc8b4af4ef1b32f65587f083fbeba4ca186fa).

Use reference counting to avoid memory leak in kwargs

Tracks other callinfo that references the same kwargs and frees them when all references are cleared.

[bug [#19906](#)]

Co-authored-by: Peter Zhu peter@peterzhu.ca

#3 - 10/01/2023 06:42 PM - HParker (Adam Hess)

Updated reproduction script:

Maybe this is a better reproduction?

```
a = RubyVM::InstructionSequence.compile("foo(bar: :baz)").to_binary

10.times do
  500_000.times do
    RubyVM::InstructionSequence.load_from_binary(a)
  end

  puts `ps -o rss= -p #{$$}`
end
```

before:

```
20244
31760
40572
48468
55324
63712
71260
79552
87224
94492
```

after:

13156
16072
16080
16620
16620
16620
16628
16672
16672
16672

#4 - 10/01/2023 07:56 PM - peterzhu2118 (Peter Zhu)

- *Related to Bug #18553: Memory leak on compiling method call with kwargs added*