

## Ruby 1.8 - Bug #141

### Rational#power2 loops when the argument is 0

06/12/2008 05:11 AM - krsh (Gianluigi Spagnuolo)

<b>Status:</b>	Closed
<b>Priority:</b>	Normal
<b>Assignee:</b>	matz (Yukihiro Matsumoto)
<b>Target version:</b>	
<b>ruby -v:</b>	
<b>Description</b>	
=begin Rational#power2, when passed Rational, loop if the argument is 0.  For example:  Rational.new!(3, 4).power2(Rational.new!(0, 3)) =end	

#### Associated revisions

##### Revision e3e8af93 - 02/16/2018 02:45 PM - k0kubun (Takashi Kokubun)

mjit.c: fix deadlock on class serial increment

This is reported by @hasimo. Fixing a case like this:

```
#0 Ill_lock_wait () at ../sysdeps/unix/sysv/linux/x86_64/lowlevellock.S:135
#1 0x00007fc7bd824dbd in __GI_pthread_mutex_lock (mutex=mutex@entry=0x55946d294440 ) at ./nptl/pthread_mutex_lock.c:80 4
#2 0x000055946cec54d9 in rb_native_mutex_lock (lock=lock@entry=0x55946d294440 ) at thread_pthread.c:211
#3 0x000055946cde10ca in CRITICAL_SECTION_START (msg=0x55946cfb5423 "mjit_gc_start_hook", level=4) at mjit.c:392
#4 mjit_gc_start_hook () at mjit.c:412
#5 0x000055946cda0dfe in gc_enter (event=0x55946cfaf91e "gc_rest", objspace=0x55946da51760) at gc.c:6623
#6 gc_rest (objspace=objspace@entry=0x55946da51760) at gc.c:6515
#7 0x000055946cd9f1cf in gc_rest (objspace=0x55946da51760) at gc.c:7841
#8 objspace_malloc_increase (objspace=objspace@entry=0x55946da51760, new_size=, old_size=old_size@entry=0,
type=type@entry=MEMOP_TYPE_MALLOC, mem=0x7fc7a4439010) at gc.c:7842
#9 0x000055946cda1706 in objspace_malloc_fixup (size=, mem=0x7fc7a4439010, objspace=0x55946da51760) at gc.c:7910
#10 objspace_xmalloc0 (objspace=0x55946da51760, size=, size@entry=3145728) at gc.c:7939
#11 0x000055946cda3620 in ruby_xmalloc0 (size=3145728) at gc.c:8006
#12 ruby_xmalloc (size=size@entry=3145728) at gc.c:8015
#13 0x000055946ce93f4c in st_init_table_with_size (type=0x55946d28da30, size=) at st.c:602
#14 0x000055946ce94287 in rebuild_table (tab=tab@entry=0x55946db669f0) at st.c:777
#15 0x000055946ce963f7 in rebuild_table_if_necessary (tab=0x55946db669f0) at st.c:1139
#16 st_add_direct_with_hash (hash=8577035585096733536, value=20, key=808451, tab=0x55946db669f0) at st.c:1207
#17 st_update (tab=0x55946db669f0, key=key@entry=808451, func=, arg=140726472841392) at st.c:1512
#18 0x000055946cda9e27 in tbl_update (optional_arg=, func=, key=, hash=) at hash.c:561
#19 rb_hash_aset (hash=94095983218480, key=key@entry=808451, val=val@entry=20) at hash.c:1654
#20 0x000055946cde243a in mjit_add_class_serial (class_serial=class_serial@entry=404225) at mjit.c:1414 3
#21 0x000055946cefcbf1 in rb_next_class_serial () at vm.c:321
#22 0x000055946cf48324 in class_alloc (klass=, flags=28) at class.c:178
#23 rb_include_class_new (module=module@entry=94096115733840, super=0) at class.c:820
#24 0x000055946cf487ac in include_modules_at (klass=klass@entry=94096135960920, c=, module=, module@entry=94096115734160,
search_super=search_super@entry=1) at class.c:913
#25 0x000055946cf48ac8 in rb_include_module (klass=94096135960920, module=module@entry=94096115734160) at class.c:870
#26 0x000055946cd84993 in rb_mod_append_features (module=94096115734160, include=) at eval.c:1178
#27 0x000055946cf06829 in vm_call0_cfunc_with_frame (ci=0x7ffd6f6c9a20, cc=0x7ffd6f6c9ba0, argv=0x7ffd6f6c9ba0, calling=0x7ffd6f6c9a30,
ec=0x55946da519c8) at vm_eval.c:87
#28 vm_call0_cfunc (argv=0x7ffd6f6c9ba0, cc=0x7ffd6f6c9ba0, ci=0x7ffd6f6c9a20, calling=0x7ffd6f6c9a30, ec=0x55946da519c8) at vm_eval.c:102
#29 vm_call0_body (ec=ec@entry=0x55946da519c8, calling=calling@entry=0x7ffd6f6c9ae0, ci=ci@entry=0x7ffd6f6c9ad0,
cc=cc@entry=0x7ffd6f6c9b00, argv=argv@entry=0x7ffd6f6c9ba0) at vm_eval.c:133
#30 0x000055946cf074b2 in vm_call0 (me=, argv=0x7ffd6f6c9ba0, argc=1, id=4849, recv=94096115734160, ec=0x55946da519c8) at vm_eval.c:60
#31 rb_call0 (ec=0x55946da519c8, recv=94096115734160, mid=4849, mid@entry=94096135960920, argc=argc@entry=1,
argv=argv@entry=0x7ffd6f6c9ba0, scope=scope@entry=CALL_FCALL, self=94096135960920) at vm_eval.c:302
#32 0x000055946cf07b9b in rb_call (scope=CALL_FCALL, argv=0x7ffd6f6c9ba0, argc=1, mid=94096135960920, recv=) at vm_eval.c:595
#33 rb_funcallv (recv=, mid=mid@entry=4849, argc=argc@entry=1, argv=argv@entry=0x7ffd6f6c9ba0) at vm_eval.c:825
#34 0x000055946cd848a7 in rb_mod_include (argc=0, argv=0x7fc7bdb4fce8, module=94096135960920) at eval.c:1203
#35 0x000055946cef6b1f in vm_call_cfunc_with_frame (ci=0x5594710c06b0, cc=, calling=, reg_cfp=0x7fc7bdc4df00, ec=0x55946da519c8) at
vm_insnhelper.c:1928
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#36 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4df00, calling=, ci=0x5594710c06b0, cc=) at vm\_inshelper.c:1944  
#37 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#38 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#39 0x000055946cf035fc in invoke\_block (captured=0x7ffd6f6ca0a0, opt\_pc=, type=, cref=0x559476c23930, self=94096135960920, iseq=0x559471335ee0, ec=0x55946da519c8) at vm.c:1005  
#40 invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x7ffd6f6ca0a0, self=94096135960920, argc=, argv=, passed\_block\_handler=0, cref=0x559476c23930, is\_lambda=0) at vm.c:1057  
#41 0x000055946cf04520 in invoke\_block\_from\_c\_bh (ec=ec@entry=0x55946da519c8, block\_handler=, argc=argc@entry=1, argv=argv@entry=0x7ffd6f6ca108, cref=, is\_lambda=, is\_lambda@entry=0, force\_blockarg=0, passed\_block\_handler=0) at vm.c:1075  
#42 0x000055946cf04958 in vm\_yield\_with\_cref (is\_lambda=0, cref=, argv=0x7ffd6f6ca108, argc=1, ec=0x55946da519c8) at vm.c:1112  
#43 yield\_under (under=94096135960920, self=, argc=argc@entry=1, argv=argv@entry=0x7ffd6f6ca108) at vm\_eval.c:1572  
#44 0x000055946cf04b12 in rb\_mod\_module\_exec (argc=argc@entry=1, argv=argv@entry=0x7ffd6f6ca108, mod=) at vm\_eval.c:1770  
#45 0x000055946ce00fc6 in rb\_mod\_initialize (module=94096135960920) at object.c:1978  
#46 0x000055946cf06829 in vm\_call0\_cfunc\_with\_frame (ci=0x7ffd6f6ca130, cc=0x7fc7bdb4fc98, argv=0x7fc7bdb4fc98, calling=0x7ffd6f6ca140, ec=0x55946da519c8) at vm\_eval.c:87  
#47 vm\_call0\_cfunc (argv=0x7fc7bdb4fc98, cc=0x7fc7bdb4fc98, ci=0x7ffd6f6ca130, calling=0x7ffd6f6ca140, ec=0x55946da519c8) at vm\_eval.c:102  
#48 vm\_call0\_body (ec=ec@entry=0x55946da519c8, calling=calling@entry=0x7ffd6f6ca1f0, ci=ci@entry=0x7ffd6f6ca1e0, cc=cc@entry=0x7ffd6f6ca210, argv=argv@entry=0x7fc7bdb4fc98) at vm\_eval.c:133  
#49 0x000055946cf074b2 in vm\_call0 (me=, argv=0x7fc7bdb4fc98, argc=0, id=3057, recv=94096135960920, ec=0x55946da519c8) at vm\_eval.c:60  
#50 rb\_call0 (ec=0x55946da519c8, recv=recv@entry=94096135960920, mid=mid@entry=3057, argc=argc@entry=3057, argv=argv@entry=0x0, scope=scope@entry=CALL\_FCALL, self=94095983466120) at vm\_eval.c:302  
#51 0x000055946cf07b9b in rb\_call (scope=CALL\_FCALL, argv=0x0, argc=3057, mid=3057, recv=94096135960920) at vm\_eval.c:595  
#52 rb\_funcallv (recv=recv@entry=94096135960920, mid=mid@entry=3057, argc=argc@entry=0, argv=argv@entry=0x7fc7bdb4fc98) at vm\_eval.c:825  
#53 0x000055946cd89673 in rb\_obj\_call\_init (obj=obj@entry=94096135960920, argc=argc@entry=0, argv=argv@entry=0x7fc7bdb4fc98) at eval.c:1590  
#54 0x000055946ce048a1 in rb\_class\_s\_new (argc=0, argv=0x7fc7bdb4fc98, klass=) at object.c:2153  
#55 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x559471339c80, cc=, calling=, reg\_cfp=0x7fc7bdc4dfa8, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#56 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4dfa8, calling=, ci=0x559471339c80, cc=) at vm\_inshelper.c:1944  
#57 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#58 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#59 0x000055946cf03274 in invoke\_bmethod (ec=ec@entry=0x55946da519c8, iseq=iseq@entry=0x55946f15cb0c, self=self@entry=94096115734640, me=me@entry=0x559475664e28, type=type@entry=572653825, opt\_pc=0, captured=0x55947158e8a0) at vm.c:1026  
#60 0x000055946cf03534 in invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x55947158e8a0, self=94096115734640, argc=, argv=, passed\_block\_handler=0, cref=0x0, is\_lambda=1) at vm.c:1060  
#61 0x000055946cf036ce in invoke\_block\_from\_c\_proc (ec=, proc=, self=, argc=1, argv=, passed\_block\_handler=, is\_lambda=) at vm.c:1150  
#62 0x000055946cf03811 in vm\_invoke\_bmethod (block\_handler=, argv=, argc=1, self=, proc=, ec=0x55946da519c8) at vm.c:1175  
#63 vm\_call\_bmethod\_body (ci=, cc=0x55946f625960, argv=, calling=0x7ffd6f6ca9b0, ec=0x55946da519c8) at vm\_inshelper.c:1971  
#64 vm\_call\_bmethod (ec=0x55946da519c8, cfp=0x7fc7bdc4e0c0, calling=0x7ffd6f6ca9b0, ci=, cc=0x55946f625960) at vm\_inshelper.c:1988  
#65 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4e0c0, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#66 0x000055946cf0e63e in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:797  
#67 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#68 0x000055946cf06767 in vm\_call0\_body (ec=ec@entry=0x55946da519c8, calling=calling@entry=0x7ffd6f6cad00, ci=ci@entry=0x7ffd6f6cacf0, cc=cc@entry=0x7ffd6f6cad20, argv=argv@entry=0x7ffd6f6cadb0) at vm\_eval.c:129  
#69 0x000055946cf074b2 in vm\_call0 (me=, argv=0x7ffd6f6cadb0, argc=1, id=3681, recv=94096115734640, ec=0x55946da519c8) at vm\_eval.c:60  
#70 rb\_call0 (ec=0x55946da519c8, recv=recv@entry=94096115734640, mid=3681, argc=argc@entry=1, argv=argv@entry=0x7ffd6f6cad90, scope=scope@entry=CALL\_FCALL, self=94095983452880) at vm\_eval.c:302  
#71 0x000055946cf07b9b in rb\_call (scope=CALL\_FCALL, argv=0x7ffd6f6cad90, argc=1, mid=, recv=94096115734640) at vm\_eval.c:595  
#72 rb\_funcallv (recv=recv@entry=94096115734640, mid=, argc=argc@entry=1, argv=argv@entry=0x7ffd6f6cadb0) at vm\_eval.c:825  
#73 0x000055946cf477d2 in rb\_class\_inherited (super=super@entry=94096115734640, klass=klass@entry=94096135961440) at class.c:625  
#74 0x000055946cf07f96 in vm\_declare\_class (super=, cbase=94096094868200, flags=, id=847387) at vm\_inshelper.c:3134  
#75 vm\_define\_class (super=, cbase=, flags=, id=847387) at vm\_inshelper.c:3167  
#76 vm\_find\_or\_create\_class\_by\_id (super=, cbase=, flags=, id=847387) at vm\_inshelper.c:3196  
#77 vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:685  
#78 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#79 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x559471f1b548) at vm.c:2046  
#80 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94096135872160, wrap=wrap@entry=0) at load.c:611  
#81 0x000055946cdd41f1 in rb\_require\_internal (fname=94096135872400, fname@entry=94096135872440, safe=0) at load.c:992  
#82 0x000055946cdd4493 in rb\_require\_safe (safe=, fname=94096135872440) at load.c:1038  
#83 rb\_f\_require (obj=, fname=94096135872440) at load.c:820  
#84 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x5594708700a0, cc=, calling=, reg\_cfp=0x7fc7bdc4e168, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#85 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e168, calling=, ci=0x5594708700a0, cc=) at vm\_inshelper.c:1944  
#86 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4e168, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#87 0x000055946cf0e63e in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:797  
#88 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#89 0x000055946cf035fc in invoke\_block (captured=0x7fc7bdc4e490, opt\_pc=, type=, cref=0x0, self=94096096426480, iseq=0x55946e49f0b8, ec=0x55946da519c8) at vm.c:1005

#90 invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x7fc7bdc4e490, self=94096096426480, argc=, argv=, passed\_block\_handler=0, cref=0x0, is\_lambda=0) at vm.c:1057  
#91 0x000055946cf04699 in invoke\_block\_from\_c\_bh (argc=, passed\_block\_handler=, cref=, is\_lambda=, force\_blockarg=, argv=, block\_handler=, ec=) at vm.c:1075  
#92 vm\_yield (argc=1, argv=0x7ffd6f6cb938, ec=) at vm.c:1120  
#93 rb\_yield\_0 (argv=0x7ffd6f6cb938, argc=1) at vm\_eval.c:980  
#94 rb\_yield\_1 (val=94096130169040) at vm\_eval.c:986  
#95 rb\_yield (val=) at vm\_eval.c:996  
#96 0x000055946cf2113d in rb\_ary\_each (ary=94096076222560) at array.c:1820  
#97 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946ed0d090, cc=, calling=, reg\_cfp=0x7fc7bdc4e478, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#98 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e478, calling=, ci=0x55946ed0d090, cc=) at vm\_inshelper.c:1944  
#99 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#100 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#101 0x000055946cf035fc in invoke\_block (captured=0x7fc7bdc4e500, opt\_pc=, type=, cref=0x0, self=94096096426480, iseq=0x55946e49f298, ec=0x55946da519c8) at vm.c:1005  
#102 invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x7fc7bdc4e500, self=94096096426480, argc=, argv=, passed\_block\_handler=0, cref=0x0, is\_lambda=0) at vm.c:1057  
#103 0x000055946cf04699 in invoke\_block\_from\_c\_bh (argc=, passed\_block\_handler=, cref=, is\_lambda=, force\_blockarg=, argv=, block\_handler=, ec=) at vm.c:1075  
#104 vm\_yield (argc=1, argv=0x7ffd6f6cbdf8, ec=) at vm.c:1120  
#105 rb\_yield\_0 (argv=0x7ffd6f6cbdf8, argc=1) at vm\_eval.c:980  
#106 rb\_yield\_1 (val=94096095502480) at vm\_eval.c:986  
#107 rb\_yield (val=) at vm\_eval.c:996  
#108 0x000055946cf2113d in rb\_ary\_each (ary=94096095328480) at array.c:1820  
#109 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e8552a0, cc=, calling=, reg\_cfp=0x7fc7bdc4e4e8, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#110 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e4e8, calling=, ci=0x55946e8552a0, cc=) at vm\_inshelper.c:1944  
#111 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#112 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#113 0x000055946cf06767 in vm\_call0\_body (ec=ec@entry=0x55946da519c8, calling=calling@entry=0x7ffd6f6cc2d0, ci=ci@entry=0x7ffd6f6cc2c0, cc=cc@entry=0x7ffd6f6cc2f0, argv=argv@entry=0x7ffd6f6cc390) at vm\_eval.c:129  
#114 0x000055946cf074b2 in vm\_call0 (me=, argv=0x7ffd6f6cc390, argc=0, id=135807, recv=94096096186440, ec=0x55946da519c8) at vm\_eval.c:60  
#115 rb\_call0 (ec=0x55946da519c8, recv=94096096186440, mid=135807, argc=, argv=argv@entry=0x8, scope=scope@entry=CALL\_PUBLIC, self=9409593048320) at vm\_eval.c:302  
#116 0x000055946cf0a31a in rb\_call (scope=CALL\_PUBLIC, argv=0x8, argc=, mid=, recv=) at vm\_eval.c:595  
#117 rb\_funcall\_with\_block (recv=, mid=, argc=argc@entry=0, argv=argv@entry=0x7ffd6f6cc390, passed\_procv=passed\_procv@entry=8) at vm\_eval.c:857  
#118 0x000055946ceb319c in rb\_sym\_proc\_call (mid=, argc=argc@entry=1, argv=argv@entry=0x7ffd6f6cc388, passed\_proc=passed\_proc@entry=8) at string.c:10480  
#119 0x000055946cf0477c in vm\_yield\_with\_symbol (block\_handler=0, argv=0x7ffd6f6cc388, argc=1, symbol=, ec=) at vm\_inshelper.c:2573  
#120 invoke\_block\_from\_c\_bh (argc=, passed\_block\_handler=, cref=, is\_lambda=, force\_blockarg=, argv=, block\_handler=, ec=) at vm.c:1084  
#121 vm\_yield (argc=1, argv=0x7ffd6f6cc388, ec=) at vm.c:1120  
#122 rb\_yield\_0 (argv=0x7ffd6f6cc388, argc=1) at vm\_eval.c:980  
#123 rb\_yield\_1 (val=94096096186440) at vm\_eval.c:986  
#124 rb\_yield (val=) at vm\_eval.c:996  
#125 0x000055946cf2113d in rb\_ary\_each (ary=9409593048320) at array.c:1820  
#126 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x5594744d8280, cc=, calling=, reg\_cfp=0x7fc7bdc4e590, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#127 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e590, calling=, ci=0x5594744d8280, cc=) at vm\_inshelper.c:1944  
#128 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4e590, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#129 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#130 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#131 0x000055946cf035fc in invoke\_block (captured=0x7ffd6f6cc8e0, opt\_pc=, type=, cref=0x559474604128, self=94096096426480, iseq=0x5594745027e8, ec=0x55946da519c8) at vm.c:1005  
#132 invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x7ffd6f6cc8e0, self=94096096426480, argc=, argv=, passed\_block\_handler=0, cref=0x559474604128, is\_lambda=0) at vm.c:1057  
#133 0x000055946cf04520 in invoke\_block\_from\_c\_bh (ec=ec@entry=0x55946da519c8, block\_handler=, argc=argc@entry=1, argv=argv@entry=0x7fc7bdb4f7f8, cref=, is\_lambda=, is\_lambda@entry=0, force\_blockarg=0, passed\_block\_handler=0) at vm.c:1075  
#134 0x000055946cf04958 in vm\_yield\_with\_cref (is\_lambda=0, cref=, argv=0x7fc7bdb4f7f8, argc=1, ec=0x55946da519c8) at vm.c:1112  
#135 yield\_under (under=94096093646040, self=, argc=1, argv=0x7fc7bdb4f7f8) at vm\_eval.c:1572  
#136 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e5cd230, cc=, calling=, reg\_cfp=0x7fc7bdc4e600, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#137 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e600, calling=, ci=0x55946e5cd230, cc=) at vm\_inshelper.c:1944  
#138 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#139 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#140 0x000055946cf035fc in invoke\_block (captured=0x5594744c4fb0, opt\_pc=, type=, cref=0x0, self=94095990659320, iseq=0x55946e192aa0, ec=0x55946da519c8) at vm.c:1005  
#141 invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x5594744c4fb0, self=94095990659320, argc=, argv=, passed\_block\_handler=0, cref=0x0, is\_lambda=0) at vm.c:1057

#142 0x000055946cf04699 in invoke\_block\_from\_c\_bh (argc=, passed\_block\_handler=, cref=, is\_lambda=, force\_blockarg=, argv=, block\_handler=, ec=) at vm.c:1075  
#143 vm\_yield (argc=1, argv=0x7ffd6f6ccdc8, ec=) at vm.c:1120  
#144 rb\_yield\_0 (argv=0x7ffd6f6ccdc8, argc=1) at vm\_eval.c:980  
#145 rb\_yield\_1 (val=94096094867920) at vm\_eval.c:986  
#146 rb\_yield (val=) at vm\_eval.c:996  
#147 0x000055946cf2113d in rb\_ary\_each (ary=94096094867160) at array.c:1820  
#148 0x000055946cf06829 in vm\_call0\_cfunc\_with\_frame (ci=0x7ffd6f6cce00, cc=0x7ffd6f6cce70, argv=0x7fc7bdb4f6b8, calling=0x7ffd6f6cce50, ec=0x55946da519c8) at vm\_eval.c:87  
#149 vm\_call0\_cfunc (argv=0x7fc7bdb4f6b8, cc=0x7ffd6f6cce70, ci=0x7ffd6f6cce00, calling=0x7ffd6f6cce50, ec=0x55946da519c8) at vm\_eval.c:102  
#150 vm\_call0\_body (ec=0x55946da519c8, calling=calling@entry=0x7ffd6f6cce00, ci=ci@entry=0x7ffd6f6cceb0, cc=cc@entry=0x7ffd6f6ccce0, argv=0x7fc7bdb4f6b8) at vm\_eval.c:133  
#151 0x000055946cf06c50 in vm\_call0 (me=, argv=, argc=, id=, recv=, ec=) at vm\_eval.c:60  
#152 rb\_vm\_call (ec=, recv=, id=, argc=, argv=, me=) at vm\_eval.c:209  
#153 0x000055946cfb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946dba2780, cc=, calling=, reg\_cfp=0x7fc7bdc4e7c0, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#154 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e7c0, calling=, ci=0x55946dba2780, cc=) at vm\_inshelper.c:1944  
#155 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4e7c0, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#156 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#157 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#158 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x55946dfed3a8) at vm.c:2046  
#159 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94095988939080, wrap=wrap@entry=0) at load.c:611  
#160 0x000055946cdd41f1 in rb\_require\_internal (fname=94095988939160, fname@entry=94095988939200, safe=0) at load.c:992  
#161 0x000055946cdd4493 in rb\_require\_safe (safe=, fname=94095988939200) at load.c:1038  
#162 rb\_f\_require (obj=, fname=94095988939200) at load.c:820  
#163 0x000055946cfb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946dffa920, cc=, calling=, reg\_cfp=0x7fc7bdc4e948, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#164 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e948, calling=, ci=0x55946dffa920, cc=) at vm\_inshelper.c:1944  
#165 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4e948, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#166 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#167 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#168 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x55946dfef438) at vm.c:2046  
#169 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94095993039280, wrap=wrap@entry=0) at load.c:611  
#170 0x000055946cdd41f1 in rb\_require\_internal (fname=fname@entry=94095993043840, safe=0) at load.c:992  
#171 0x000055946cdd4493 in rb\_require\_safe (safe=, fname=94095993043840) at load.c:1038  
#172 rb\_f\_require (obj=, fname=94095993043840) at load.c:820  
#173 0x000055946cfb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946ea12160, cc=, calling=, reg\_cfp=0x7fc7bdc4e9b8, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#174 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e9b8, calling=, ci=0x55946ea12160, cc=) at vm\_inshelper.c:1944  
#175 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4e9b8, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#176 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#177 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#178 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x55946e3d7c48) at vm.c:2046  
#179 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94095988920840, wrap=) at load.c:611  
#180 0x000055946cdd2850 in rb\_load\_internal (wrap=0, fname=94095988920840) at load.c:642  
#181 rb\_f\_load (argc=, argv=) at load.c:710  
#182 0x000055946cfb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e7c96e0, cc=, calling=, reg\_cfp=0x7fc7bdc4ea28, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#183 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4ea28, calling=, ci=0x55946e7c96e0, cc=) at vm\_inshelper.c:1944  
#184 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4ea28, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#185 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#186 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#187 0x000055946cf035fc in invoke\_block (captured=0x7fc7bdc4eae8, opt\_pc=, type=, cref=0x0, self=9409598891400, iseq=0x55946e4dae10, ec=0x55946da519c8) at vm.c:1005  
#188 invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x7fc7bdc4eae8, self=9409598891400, argc=, argv=, passed\_block\_handler=0, cref=0x0, is\_lambda=0) at vm.c:1057  
#189 0x000055946cf04699 in invoke\_block\_from\_c\_bh (argc=, passed\_block\_handler=, cref=, is\_lambda=, force\_blockarg=, argv=, block\_handler=, ec=) at vm.c:1075  
#190 vm\_yield (argc=1, argv=0x7ffd6f6ce8e8, ec=) at vm.c:1120  
#191 rb\_yield\_0 (argv=0x7ffd6f6ce8e8, argc=1) at vm\_eval.c:980  
#192 rb\_yield\_1 (val=94095988924840) at vm\_eval.c:986  
#193 rb\_yield (val=) at vm\_eval.c:996  
#194 0x000055946cf2113d in rb\_ary\_each (ary=94095988920960) at array.c:1820  
#195 0x000055946cfb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e421000, cc=, calling=, reg\_cfp=0x7fc7bdc4ead0, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#196 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4ead0, calling=, ci=0x55946e421000, cc=) at vm\_inshelper.c:1944  
#197 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4ead0, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#198 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716

#199 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#200 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x55946e35f2c0) at vm.c:2046  
#201 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94095992643280, wrap=) at load.c:611  
#202 0x000055946cdd2850 in rb\_load\_internal (wrap=0, fname=94095992643280) at load.c:642  
#203 rb\_f\_load (argc=, argv=) at load.c:710  
#204 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e24bb20, cc=, calling=, reg\_cfp=0x7fc7bdc4ec58, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#205 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4ec58, calling=, ci=0x55946e24bb20, cc=) at vm\_inshelper.c:1944  
#206 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4ec58, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#207 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#208 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#209 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x55946e3a7390) at vm.c:2046  
#210 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94095993616120, wrap=) at load.c:611  
#211 0x000055946cdd2850 in rb\_load\_internal (wrap=0, fname=94095993616120) at load.c:642  
#212 rb\_f\_load (argc=, argv=) at load.c:710  
#213 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e6a00d0, cc=, calling=, reg\_cfp=0x7fc7bdc4ecc8, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#214 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4ecc8, calling=, ci=0x55946e6a00d0, cc=) at vm\_inshelper.c:1944  
#215 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4ecc8, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#216 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#217 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#218 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x55946e470100) at vm.c:2046  
#219 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94095993672200, wrap=) at load.c:611  
#220 0x000055946cdd2850 in rb\_load\_internal (wrap=0, fname=94095993672200) at load.c:642  
#221 rb\_f\_load (argc=, argv=) at load.c:710  
#222 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e3306a0, cc=, calling=, reg\_cfp=0x7fc7bdc4efa0, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#223 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4efa0, calling=, ci=0x55946e3306a0, cc=) at vm\_inshelper.c:1944  
#224 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4efa0, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#225 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#226 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#227 0x000055946cf119d5 in rb\_iseq\_eval\_main (iseq=iseq@entry=0x55946e4bbba0) at vm.c:2057  
#228 0x000055946cd83d54 in ruby\_exec\_internal (n=0x55946e4bbba0) at eval.c:247  
#229 0x000055946cd87fd1 in ruby\_exec\_node (n=0x55946e4bbba0) at eval.c:311  
#230 ruby\_run\_node (n=) at eval.c:303  
#231 0x000055946cd831bf in main (argc=22, argv=0x7ffd6f6d0148) at ./main.c:42

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@62433 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

#### Revision 62433 - 02/16/2018 02:45 PM - k0kubun (Takashi Kokubun)

mjit.c: fix deadlock on class serial increment

This is reported by @hasimo. Fixing a case like this:

#0 Ill\_lock\_wait () at ../sysdeps/unix/sysv/linux/x86\_64/lowlevellock.S:135  
#1 0x00007fc7bd824dbd in \_\_GI\_pthread\_mutex\_lock (mutex=mutex@entry=0x55946d294440) at ./nptl/pthread\_mutex\_lock.c:80 4  
#2 0x000055946cec54d9 in rb\_native\_mutex\_lock (lock=lock@entry=0x55946d294440) at thread\_pthread.c:211  
#3 0x000055946cde10ca in CRITICAL\_SECTION\_START (msg=0x55946cfb5423 "mjit\_gc\_start\_hook", level=4) at mjit.c:392  
#4 mjit\_gc\_start\_hook () at mjit.c:412  
#5 0x000055946cda0dfe in gc\_enter (event=0x55946cfaf91e "gc\_rest", objspace=0x55946da51760) at gc.c:6623  
#6 gc\_rest (objspace=objspace@entry=0x55946da51760) at gc.c:6515  
#7 0x000055946cd9f1cf in gc\_rest (objspace=0x55946da51760) at gc.c:7841  
#8 objspace\_malloc\_increase (objspace=objspace@entry=0x55946da51760, new\_size=, old\_size=old\_size@entry=0, type=type@entry=MEMOP\_TYPE\_MALLOC, mem=0x7fc7a4439010) at gc.c:7842  
#9 0x000055946cda1706 in objspace\_malloc\_fixup (size=, mem=0x7fc7a4439010, objspace=0x55946da51760) at gc.c:7910  
#10 objspace\_xmalloc0 (objspace=0x55946da51760, size=, size@entry=3145728) at gc.c:7939  
#11 0x000055946cda3620 in ruby\_xmalloc0 (size=3145728) at gc.c:8006  
#12 ruby\_xmalloc (size=size@entry=3145728) at gc.c:8015  
#13 0x000055946ce93f4c in st\_init\_table\_with\_size (type=0x55946d28da30, size=) at st.c:602  
#14 0x000055946ce94287 in rebuild\_table (tab=tab@entry=0x55946db669f0) at st.c:777  
#15 0x000055946ce963f7 in rebuild\_table\_if\_necessary (tab=0x55946db669f0) at st.c:1139  
#16 st\_add\_direct\_with\_hash (hash=8577035585096733536, value=20, key=808451, tab=0x55946db669f0) at st.c:1207  
#17 st\_update (tab=0x55946db669f0, key=key@entry=808451, func=, arg=140726472841392) at st.c:1512  
#18 0x000055946cda9e27 in tbl\_update (optional\_arg=, func=, key=, hash=) at hash.c:561  
#19 rb\_hash\_aset (hash=94095983218480, key=key@entry=808451, val=val@entry=20) at hash.c:1654  
#20 0x000055946cde243a in mjit\_add\_class\_serial (class\_serial=class\_serial@entry=404225) at mjit.c:1414 3  
#21 0x000055946cefcfab in rb\_next\_class\_serial () at vm.c:321  
#22 0x000055946cf48324 in class\_alloc (klass=, flags=28) at class.c:178  
#23 rb\_include\_class\_new (module=module@entry=94096115733840, super=0) at class.c:820  
#24 0x000055946cf487ac in include\_modules\_at (klass=klass@entry=94096135960920, c=, module=, module@entry=94096115734160, search\_super=search\_super@entry=1) at class.c:913

#25 0x000055946cf48ac8 in rb\_include\_module (klass=94096135960920, module=module@entry=94096115734160) at class.c:870  
#26 0x000055946cd84993 in rb\_mod\_append\_features (module=94096115734160, include=) at eval.c:1178  
#27 0x000055946cf06829 in vm\_call0\_cfunc\_with\_frame (ci=0x7ffd6f6c9a20, cc=0x7ffd6f6c9ba0, argv=0x7ffd6f6c9ba0, calling=0x7ffd6f6c9a30, ec=0x55946da519c8) at vm\_eval.c:87  
#28 vm\_call0\_cfunc (argv=0x7ffd6f6c9ba0, cc=0x7ffd6f6c9ba0, ci=0x7ffd6f6c9a20, calling=0x7ffd6f6c9a30, ec=0x55946da519c8) at vm\_eval.c:102  
#29 vm\_call0\_body (ec=ec@entry=0x55946da519c8, calling=calling@entry=0x7ffd6f6c9ae0, ci=ci@entry=0x7ffd6f6c9ad0, cc=cc@entry=0x7ffd6f6c9b00, argv=argv@entry=0x7ffd6f6c9ba0) at vm\_eval.c:133  
#30 0x000055946cf074b2 in vm\_call0 (me=, argv=0x7ffd6f6c9ba0, argc=1, id=4849, recv=94096115734160, ec=0x55946da519c8) at vm\_eval.c:60  
#31 rb\_call0 (ec=0x55946da519c8, recv=94096115734160, mid=4849, mid@entry=94096135960920, argc=argc@entry=1, argv=argv@entry=0x7ffd6f6c9ba0, scope=scope@entry=CALL\_FCALL, self=94096135960920) at vm\_eval.c:302  
#32 0x000055946cf07b9b in rb\_call (scope=CALL\_FCALL, argv=0x7ffd6f6c9ba0, argc=1, mid=94096135960920, recv=) at vm\_eval.c:595  
#33 rb\_funcallv (recv=, mid=mid@entry=4849, argc=argc@entry=1, argv=argv@entry=0x7ffd6f6c9ba0) at vm\_eval.c:825  
#34 0x000055946cd848a7 in rb\_mod\_include (argc=0, argv=0x7fc7bdb4fce8, module=94096135960920) at eval.c:1203  
#35 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x5594710c06b0, cc=, calling=, reg\_cfp=0x7fc7bdc4df00, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#36 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4df00, calling=, ci=0x5594710c06b0, cc=) at vm\_inshelper.c:1944  
#37 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#38 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#39 0x000055946cf035fc in invoke\_block (captured=0x7ffd6f6ca0a0, opt\_pc=, type=, cref=0x559476c23930, self=94096135960920, iseq=0x559471335ee0, ec=0x55946da519c8) at vm.c:1005  
#40 invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x7ffd6f6ca0a0, self=94096135960920, argc=, argv=, passed\_block\_handler=, cref=0x559476c23930, is\_lambda=0) at vm.c:1057  
#41 0x000055946cf04520 in invoke\_block\_from\_c\_bh (ec=ec@entry=0x55946da519c8, block\_handler=, argc=argc@entry=1, argv=argv@entry=0x7ffd6f6ca108, cref=, is\_lambda=, is\_lambda@entry=0, force\_blockarg=0, passed\_block\_handler=0) at vm.c:1075  
#42 0x000055946cf04958 in vm\_yield\_with\_cref (is\_lambda=0, cref=, argv=0x7ffd6f6ca108, argc=1, ec=0x55946da519c8) at vm.c:1112  
#43 yield\_under (under=94096135960920, self=, argc=argc@entry=1, argv=argv@entry=0x7ffd6f6ca108) at vm\_eval.c:1572  
#44 0x000055946cf04b12 in rb\_mod\_module\_exec (argc=argc@entry=1, argv=argv@entry=0x7ffd6f6ca108, mod=) at vm\_eval.c:1770  
#45 0x000055946ce00fc6 in rb\_mod\_initialize (module=94096135960920) at object.c:1978  
#46 0x000055946cf06829 in vm\_call0\_cfunc\_with\_frame (ci=0x7ffd6f6ca130, cc=0x7fc7bdb4fc98, argv=0x7fc7bdb4fc98, calling=0x7ffd6f6ca140, ec=0x55946da519c8) at vm\_eval.c:87  
#47 vm\_call0\_cfunc (argv=0x7fc7bdb4fc98, cc=0x7fc7bdb4fc98, ci=0x7ffd6f6ca130, calling=0x7ffd6f6ca140, ec=0x55946da519c8) at vm\_eval.c:102  
#48 vm\_call0\_body (ec=ec@entry=0x55946da519c8, calling=calling@entry=0x7ffd6f6ca1f0, ci=ci@entry=0x7ffd6f6ca1e0, cc=cc@entry=0x7ffd6f6ca210, argv=argv@entry=0x7fc7bdb4fc98) at vm\_eval.c:133  
#49 0x000055946cf074b2 in vm\_call0 (me=, argv=0x7fc7bdb4fc98, argc=0, id=3057, recv=94096135960920, ec=0x55946da519c8) at vm\_eval.c:60  
#50 rb\_call0 (ec=0x55946da519c8, recv=recv@entry=94096135960920, mid=mid@entry=3057, argc=argc@entry=3057, argv=argv@entry=0x0, scope=scope@entry=CALL\_FCALL, self=94095983466120) at vm\_eval.c:302  
#51 0x000055946cf07b9b in rb\_call (scope=CALL\_FCALL, argv=0x0, argc=3057, mid=3057, recv=94096135960920) at vm\_eval.c:595  
#52 rb\_funcallv (recv=recv@entry=94096135960920, mid=mid@entry=3057, argc=argc@entry=0, argv=argv@entry=0x7fc7bdb4fc98) at vm\_eval.c:825  
#53 0x000055946cd89673 in rb\_obj\_call\_init (obj=obj@entry=94096135960920, argc=argc@entry=0, argv=argv@entry=0x7fc7bdb4fc98) at eval.c:1590  
#54 0x000055946ce048a1 in rb\_class\_s\_new (argc=0, argv=0x7fc7bdb4fc98, klass=) at object.c:2153  
#55 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x559471339c80, cc=, calling=, reg\_cfp=0x7fc7bdc4dfa8, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#56 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4dfa8, calling=, ci=0x559471339c80, cc=) at vm\_inshelper.c:1944  
#57 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#58 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#59 0x000055946cf03274 in invoke\_bmethod (ec=ec@entry=0x55946da519c8, iseq=iseq@entry=0x55946f15cb0c0, self=self@entry=94096115734640, me=me@entry=0x559475664e28, type=type@entry=572653825, opt\_pc=0, captured=0x55947158e8a0) at vm.c:1026  
#60 0x000055946cf03534 in invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x55947158e8a0, self=94096115734640, argc=, argv=, passed\_block\_handler=0, cref=0x0, is\_lambda=1) at vm.c:1060  
#61 0x000055946cf036ce in invoke\_block\_from\_c\_proc (ec=, proc=, self=, argc=1, argv=, passed\_block\_handler=, is\_lambda=) at vm.c:1150  
#62 0x000055946cf03811 in vm\_invoke\_bmethod (block\_handler=, argv=, argc=1, self=, proc=, ec=0x55946da519c8) at vm.c:1175  
#63 vm\_call\_bmethod\_body (ci=, cc=0x55946f625960, argv=, calling=0x7ffd6f6ca9b0, ec=0x55946da519c8) at vm\_inshelper.c:1971  
#64 vm\_call\_bmethod (ec=0x55946da519c8, cfp=0x7fc7bdc4e0c0, calling=0x7ffd6f6ca9b0, ci=, cc=0x55946f625960) at vm\_inshelper.c:1988  
#65 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4e0c0, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#66 0x000055946cf0e63e in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:797  
#67 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#68 0x000055946cf06767 in vm\_call0\_body (ec=ec@entry=0x55946da519c8, calling=calling@entry=0x7ffd6f6cad00, ci=ci@entry=0x7ffd6f6cacf0, cc=cc@entry=0x7ffd6f6cad20, argv=argv@entry=0x7ffd6f6cadb0) at vm\_eval.c:129  
#69 0x000055946cf074b2 in vm\_call0 (me=, argv=0x7ffd6f6cadb0, argc=1, id=3681, recv=94096115734640, ec=0x55946da519c8) at vm\_eval.c:60  
#70 rb\_call0 (ec=0x55946da519c8, recv=recv@entry=94096115734640, mid=3681, argc=argc@entry=1, argv=argv@entry=0x7ffd6f6cad90, scope=scope@entry=CALL\_FCALL, self=94095983452880) at vm\_eval.c:302  
#71 0x000055946cf07b9b in rb\_call (scope=CALL\_FCALL, argv=0x7ffd6f6cad90, argc=1, mid=, recv=94096115734640) at vm\_eval.c:595  
#72 rb\_funcallv (recv=recv@entry=94096115734640, mid=, argc=argc@entry=1, argv=argv@entry=0x7ffd6f6cadb0) at vm\_eval.c:825  
#73 0x000055946cf477d2 in rb\_class\_inherited (super=super@entry=94096115734640, klass=class@entry=94096135961440) at class.c:625  
#74 0x000055946cf0f796 in vm\_declare\_class (super=, cbase=94096094868200, flags=, id=847387) at vm\_inshelper.c:3134  
#75 vm\_define\_class (super=, cbase=, flags=, id=847387) at vm\_inshelper.c:3167  
#76 vm\_find\_or\_create\_class\_by\_id (super=, cbase=, flags=, id=847387) at vm\_inshelper.c:3196  
#77 vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:685  
#78 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804

#79 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x559471f1b548) at vm.c:2046  
#80 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94096135872160, wrap=wrap@entry=0) at load.c:611  
#81 0x000055946cdd41f1 in rb\_require\_internal (fname=94096135872400, fname@entry=94096135872440, safe=0) at load.c:992  
#82 0x000055946cdd4493 in rb\_require\_safe (safe=, fname=94096135872440) at load.c:1038  
#83 rb\_f\_require (obj=, fname=94096135872440) at load.c:820  
#84 0x000055946cef6b1f in vm\_call\_cfunc\_with\_frame (ci=0x5594708700a0, cc=, calling=, reg\_cfp=0x7fc7bdc4e168, ec=0x55946da519c8) at vm\_insnhelper.c:1928  
#85 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e168, calling=, ci=0x5594708700a0, cc=) at vm\_insnhelper.c:1944  
#86 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4e168, calling=, ci=, cc=) at vm\_insnhelper.c:2417  
#87 0x000055946cf0e63e in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:797  
#88 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#89 0x000055946cf035fc in invoke\_block (captured=0x7fc7bdc4e490, opt\_pc=, type=, cref=0x0, self=94096096426480, iseq=0x55946e49f0b8, ec=0x55946da519c8) at vm.c:1005  
#90 invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x7fc7bdc4e490, self=94096096426480, argc=, argv=, passed\_block\_handler=0, cref=0x0, is\_lambda=0) at vm.c:1057  
#91 0x000055946cf04699 in invoke\_block\_from\_c\_bh (argc=, passed\_block\_handler=, cref=, is\_lambda=, force\_blockarg=, argv=, block\_handler=, ec=) at vm.c:1075  
#92 vm\_yield (argc=1, argv=0x7ffd6f6cb938, ec=) at vm.c:1120  
#93 rb\_yield\_0 (argv=0x7ffd6f6cb938, argc=1) at vm\_eval.c:980  
#94 rb\_yield\_1 (val=94096130169040) at vm\_eval.c:986  
#95 rb\_yield (val=) at vm\_eval.c:996  
#96 0x000055946cf2113d in rb\_ary\_each (ary=94096076222560) at array.c:1820  
#97 0x000055946cef6b1f in vm\_call\_cfunc\_with\_frame (ci=0x55946ed0d090, cc=, calling=, reg\_cfp=0x7fc7bdc4e478, ec=0x55946da519c8) at vm\_insnhelper.c:1928  
#98 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e478, calling=, ci=0x55946ed0d090, cc=) at vm\_insnhelper.c:1944  
#99 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#100 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#101 0x000055946cf035fc in invoke\_block (captured=0x7fc7bdc4e500, opt\_pc=, type=, cref=0x0, self=94096096426480, iseq=0x55946e49f298, ec=0x55946da519c8) at vm.c:1005  
#102 invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x7fc7bdc4e500, self=94096096426480, argc=, argv=, passed\_block\_handler=0, cref=0x0, is\_lambda=0) at vm.c:1057  
#103 0x000055946cf04699 in invoke\_block\_from\_c\_bh (argc=, passed\_block\_handler=, cref=, is\_lambda=, force\_blockarg=, argv=, block\_handler=, ec=) at vm.c:1075  
#104 vm\_yield (argc=1, argv=0x7ffd6f6cbdf8, ec=) at vm.c:1120  
#105 rb\_yield\_0 (argv=0x7ffd6f6cbdf8, argc=1) at vm\_eval.c:980  
#106 rb\_yield\_1 (val=94096095502480) at vm\_eval.c:986  
#107 rb\_yield (val=) at vm\_eval.c:996  
#108 0x000055946cf2113d in rb\_ary\_each (ary=94096095328480) at array.c:1820  
#109 0x000055946cef6b1f in vm\_call\_cfunc\_with\_frame (ci=0x55946e8552a0, cc=, calling=, reg\_cfp=0x7fc7bdc4e4e8, ec=0x55946da519c8) at vm\_insnhelper.c:1928  
#110 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e4e8, calling=, ci=0x55946e8552a0, cc=) at vm\_insnhelper.c:1944  
#111 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#112 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#113 0x000055946cf06767 in vm\_call0\_body (ec=ec@entry=0x55946da519c8, calling=calling@entry=0x7ffd6f6cc2d0, ci=ci@entry=0x7ffd6f6cc2c0, cc=cc@entry=0x7ffd6f6cc2f0, argv=argv@entry=0x7ffd6f6cc390) at vm\_eval.c:129  
#114 0x000055946cf074b2 in vm\_call0 (me=, argv=0x7ffd6f6cc390, argc=0, id=135807, recv=94096096186440, ec=0x55946da519c8) at vm\_eval.c:60  
#115 rb\_call0 (ec=0x55946da519c8, recv=94096096186440, mid=135807, argc=, argv=argv@entry=0x8, scope=scope@entry=CALL\_PUBLIC, self=94095993048320) at vm\_eval.c:302  
#116 0x000055946cf0a31a in rb\_call (scope=CALL\_PUBLIC, argv=0x8, argc=, mid=, recv=) at vm\_eval.c:595  
#117 rb\_funcall\_with\_block (recv=, mid=, argc=argc@entry=0, argv=argv@entry=0x7ffd6f6cc390, passed\_procval=passed\_procval@entry=8) at vm\_eval.c:857  
#118 0x000055946ceb319c in rb\_sym\_proc\_call (mid=, argc=argc@entry=1, argv=argv@entry=0x7ffd6f6cc388, passed\_proc=passed\_proc@entry=8) at string.c:10480  
#119 0x000055946cf0477c in vm\_yield\_with\_symbol (block\_handler=0, argv=0x7ffd6f6cc388, argc=1, symbol=, ec=) at vm\_insnhelper.c:2573  
#120 invoke\_block\_from\_c\_bh (argc=, passed\_block\_handlers=, cref=, is\_lambda=, force\_blockarg=, argv=, block\_handler=, ec=) at vm.c:1084  
#121 vm\_yield (argc=1, argv=0x7ffd6f6cc388, ec=) at vm.c:1120  
#122 rb\_yield\_0 (argv=0x7ffd6f6cc388, argc=1) at vm\_eval.c:980  
#123 rb\_yield\_1 (val=94096096186440) at vm\_eval.c:986  
#124 rb\_yield (val=) at vm\_eval.c:996  
#125 0x000055946cf2113d in rb\_ary\_each (ary=94095993048320) at array.c:1820  
#126 0x000055946cef6b1f in vm\_call\_cfunc\_with\_frame (ci=0x5594744d8280, cc=, calling=, reg\_cfp=0x7fc7bdc4e590, ec=0x55946da519c8) at vm\_insnhelper.c:1928  
#127 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e590, calling=, ci=0x5594744d8280, cc=) at vm\_insnhelper.c:1944  
#128 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4e590, calling=, ci=, cc=) at vm\_insnhelper.c:2417  
#129 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#130 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#131 0x000055946cf035fc in invoke\_block (captured=0x7ffd6f6cc8e0, opt\_pc=, type=, cref=0x559474604128, self=94096096426480, iseq=0x5594745027e8, ec=0x55946da519c8) at vm.c:1005  
#132 invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x7ffd6f6cc8e0, self=94096096426480, argc=, argv=, passed\_block\_handler=0,

cref=0x559474604128, is\_lambda=0) at vm.c:1057  
#133 0x000055946cf04520 in invoke\_block\_from\_c\_bh (ec=ec@entry=0x55946da519c8, block\_handler=, argc=argc@entry=1, argv=argv@entry=0x7fc7bdb4f7f8, cref=, is\_lambda=, is\_lambda@entry=0, force\_blockarg=0, passed\_block\_handler=0) at vm.c:1075  
#134 0x000055946cf04958 in vm\_yield\_with\_cref (is\_lambda=0, cref=, argv=0x7fc7bdb4f7f8, argc=1, ec=0x55946da519c8) at vm.c:1112  
#135 yield\_under (under=94096093646040, self=, argc=1, argv=0x7fc7bdb4f7f8) at vm\_eval.c:1572  
#136 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e5cd230, cc=, calling=, reg\_cfp=0x7fc7bdc4e600, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#137 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e600, calling=, ci=0x55946e5cd230, cc=) at vm\_inshelper.c:1944  
#138 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#139 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#140 0x000055946cf035fc in invoke\_block (captured=0x5594744c4fb0, opt\_pc=, type=, cref=0x0, self=94095990659320, iseq=0x55946e192aa0, ec=0x55946da519c8) at vm.c:1005  
#141 invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x5594744c4fb0, self=94095990659320, argc=, argv=, passed\_block\_handler=0, cref=0x0, is\_lambda=0) at vm.c:1057  
#142 0x000055946cf04699 in invoke\_block\_from\_c\_bh (argc=, passed\_block\_handler=, cref=, is\_lambda=, force\_blockarg=, argv=, block\_handler=, ec=) at vm.c:1075  
#143 vm\_yield (argc=1, argv=0x7fd6f6ccdc8, ec=) at vm.c:1120  
#144 rb\_yield\_0 (argv=0x7fd6f6ccdc8, argc=1) at vm\_eval.c:980  
#145 rb\_yield\_1 (val=94096094867920) at vm\_eval.c:986  
#146 rb\_yield (val=) at vm\_eval.c:996  
#147 0x000055946cf2113d in rb\_ary\_each (ary=94096094867160) at array.c:1820  
#148 0x000055946cf06829 in vm\_call0\_cfunc\_with\_frame (ci=0x7fd6f6cce00, cc=0x7fd6f6cce70, argv=0x7fc7bdb4f6b8, calling=0x7fd6f6cce50, ec=0x55946da519c8) at vm\_eval.c:87  
#149 vm\_call0\_cfunc (argv=0x7fc7bdb4f6b8, cc=0x7fd6f6cce70, ci=0x7fd6f6cce00, calling=0x7fd6f6cce50, ec=0x55946da519c8) at vm\_eval.c:102  
#150 vm\_call0\_body (ec=0x55946da519c8, calling=calling@entry=0x7fd6f6cce00, ci=ci@entry=0x7fd6f6cceb0, cc=cc@entry=0x7fd6f6ccee0, argv=0x7fc7bdb4f6b8) at vm\_eval.c:133  
#151 0x000055946cf06c50 in vm\_call0 (me=, argv=, argc=, id=, recv=, ec=) at vm\_eval.c:60  
#152 rb\_vm\_call (ec=, recv=, id=, argc=, argv=, me=) at vm\_eval.c:209  
#153 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946dba2780, cc=, calling=, reg\_cfp=0x7fc7bdc4e7c0, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#154 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e7c0, calling=, ci=0x55946dba2780, cc=) at vm\_inshelper.c:1944  
#155 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4e7c0, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#156 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#157 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#158 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x55946dfed3a8) at vm.c:2046  
#159 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94095988939080, wrap=wrap@entry=0) at load.c:611  
#160 0x000055946cdd41f1 in rb\_require\_internal (fname=fname@entry=94095988939160, fname@entry=94095988939200, safe=0) at load.c:992  
#161 0x000055946cdd4493 in rb\_require\_safe (safe=, fname=94095988939200) at load.c:1038  
#162 rb\_f\_require (obj=, fname=94095988939200) at load.c:820  
#163 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946dffa920, cc=, calling=, reg\_cfp=0x7fc7bdc4e948, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#164 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e948, calling=, ci=0x55946dffa920, cc=) at vm\_inshelper.c:1944  
#165 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4e948, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#166 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#167 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#168 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x55946dfef438) at vm.c:2046  
#169 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94095993039280, wrap=wrap@entry=0) at load.c:611  
#170 0x000055946cdd41f1 in rb\_require\_internal (fname=fname@entry=94095993043840, safe=0) at load.c:992  
#171 0x000055946cdd4493 in rb\_require\_safe (safe=, fname=94095993043840) at load.c:1038  
#172 rb\_f\_require (obj=, fname=94095993043840) at load.c:820  
#173 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946ea12160, cc=, calling=, reg\_cfp=0x7fc7bdc4e9b8, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#174 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e9b8, calling=, ci=0x55946ea12160, cc=) at vm\_inshelper.c:1944  
#175 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4e9b8, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#176 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#177 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#178 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x55946e3d7c48) at vm.c:2046  
#179 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94095988920840, wrap=) at load.c:611  
#180 0x000055946cdd2850 in rb\_load\_internal (wrap=0, fname=94095988920840) at load.c:642  
#181 rb\_f\_load (argc=, argv=) at load.c:710  
#182 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e7c96e0, cc=, calling=, reg\_cfp=0x7fc7bdc4ea28, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#183 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4ea28, calling=, ci=0x55946e7c96e0, cc=) at vm\_inshelper.c:1944  
#184 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4ea28, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#185 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#186 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#187 0x000055946cf035fc in invoke\_block (captured=0x7fc7bdc4eae8, opt\_pc=, type=, cref=0x0, self=9409598891400, iseq=0x55946e4dae10, ec=0x55946da519c8) at vm.c:1005



#188 invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x7fc7bdc4eae8, self=9409598891400, argc=, argv=, passed\_block\_handler=, cref=0x0, is\_lambda=0) at vm.c:1057  
#189 0x000055946cf04699 in invoke\_block\_from\_c\_bh (argc=, passed\_block\_handler=, cref=, is\_lambda=, force\_blockarg=, argv=, block\_handler=, ec=) at vm.c:1075  
#190 vm\_yield (argc=1, argv=0x7ffd6f6ce8e8, ec=) at vm.c:1120  
#191 rb\_yield\_0 (argv=0x7ffd6f6ce8e8, argc=1) at vm\_eval.c:980  
#192 rb\_yield\_1 (val=94095988924840) at vm\_eval.c:986  
#193 rb\_yield (val=) at vm\_eval.c:996  
#194 0x000055946cf2113d in rb\_ary\_each (ary=94095988920960) at array.c:1820  
#195 0x000055946cfb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e421000, cc=, calling=, reg\_cfp=0x7fc7bdc4ead0, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#196 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4ead0, calling=, ci=0x55946e421000, cc=) at vm\_inshelper.c:1944  
#197 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4ead0, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#198 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#199 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#200 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x55946e35f2c0) at vm.c:2046  
#201 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94095992643280, wrap=) at load.c:611  
#202 0x000055946cdd2850 in rb\_load\_internal (wrap=0, fname=94095992643280) at load.c:642  
#203 rb\_f\_load (argc=, argv=) at load.c:710  
#204 0x000055946cfb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e24bb20, cc=, calling=, reg\_cfp=0x7fc7bdc4ec58, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#205 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4ec58, calling=, ci=0x55946e24bb20, cc=) at vm\_inshelper.c:1944  
#206 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4ec58, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#207 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#208 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#209 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x55946e3a7390) at vm.c:2046  
#210 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94095993616120, wrap=) at load.c:611  
#211 0x000055946cdd2850 in rb\_load\_internal (wrap=0, fname=94095993616120) at load.c:642  
#212 rb\_f\_load (argc=, argv=) at load.c:710  
#213 0x000055946cfb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e6a00d0, cc=, calling=, reg\_cfp=0x7fc7bdc4ecc8, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#214 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4ecc8, calling=, ci=0x55946e6a00d0, cc=) at vm\_inshelper.c:1944  
#215 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4ecc8, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#216 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#217 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#218 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x55946e470100) at vm.c:2046  
#219 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94095993672200, wrap=) at load.c:611  
#220 0x000055946cdd2850 in rb\_load\_internal (wrap=0, fname=94095993672200) at load.c:642  
#221 rb\_f\_load (argc=, argv=) at load.c:710  
#222 0x000055946cfb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e3306a0, cc=, calling=, reg\_cfp=0x7fc7bdc4efa0, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#223 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4efa0, calling=, ci=0x55946e3306a0, cc=) at vm\_inshelper.c:1944  
#224 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4efa0, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#225 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#226 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#227 0x000055946cf119d5 in rb\_iseq\_eval\_main (iseq=iseq@entry=0x55946e4bbba0) at vm.c:2057  
#228 0x000055946cd83d54 in ruby\_exec\_internal (n=0x55946e4bbba0) at eval.c:247  
#229 0x000055946cd87fdf in ruby\_exec\_node (n=0x55946e4bbba0) at eval.c:311  
#230 ruby\_run\_node (n=) at eval.c:303  
#231 0x000055946cd831bf in main (argc=22, argv=0x7ffd6f6d0148) at ./main.c:42

## Revision 62433 - 02/16/2018 02:45 PM - k0kubun (Takashi Kokubun)

mjit.c: fix deadlock on class serial increment

This is reported by @hasimo. Fixing a case like this:

```
#0 III_lock_wait () at ../sysdeps/unix/sysv/linux/x86_64/lowlevellock.S:135
#1 0x00007fc7bd824dbd in __GI_pthread_mutex_lock (mutex=mutex@entry=0x55946d294440 ) at ./nptl/pthread_mutex_lock.c:80 4
#2 0x000055946cec54d9 in rb_native_mutex_lock (lock=lock@entry=0x55946d294440 ) at thread_pthread.c:211
#3 0x000055946cde10ca in CRITICAL_SECTION_START (msg=0x55946cfb5423 "mjit_gc_start_hook", level=4) at mjit.c:392
#4 mjit_gc_start_hook () at mjit.c:412
#5 0x000055946cda0dfe in gc_enter (event=0x55946cfaf91e "gc_rest", objspace=0x55946da51760) at gc.c:6623
#6 gc_rest (objspace=objspace@entry=0x55946da51760) at gc.c:6515
#7 0x000055946cd9f1cf in gc_rest (objspace=0x55946da51760) at gc.c:7841
#8 objspace_malloc_increase (objspace=objspace@entry=0x55946da51760, new_size=, old_size=old_size@entry=0, type=type@entry=MEMOP_TYPE_MALLOC, mem=0x7fc7a4439010) at gc.c:7842
#9 0x000055946cda1706 in objspace_malloc_fixup (size=, mem=0x7fc7a4439010, objspace=0x55946da51760) at gc.c:7910
#10 objspace_xmalloc0 (objspace=0x55946da51760, size=, size@entry=3145728) at gc.c:7939
#11 0x000055946cda3620 in ruby_xmalloc0 (size=3145728) at gc.c:8006
#12 ruby_xmalloc (size=size@entry=3145728) at gc.c:8015
```

#13 0x000055946ce93f4c in st\_init\_table\_with\_size (type=0x55946d28da30, size=) at st.c:602  
#14 0x000055946ce94287 in rebuild\_table (tab=tab@entry=0x55946db669f0) at st.c:777  
#15 0x000055946ce963f7 in rebuild\_table\_if\_necessary (tab=0x55946db669f0) at st.c:1139  
#16 st\_add\_direct\_with\_hash (hash=8577035585096733536, value=20, key=808451, tab=0x55946db669f0) at st.c:1207  
#17 st\_update (tab=0x55946db669f0, key=key@entry=808451, func=, arg=140726472841392) at st.c:1512  
#18 0x000055946cda9e27 in tbl\_update (optional\_arg=, func=, key=, hash=) at hash.c:561  
#19 rb\_hash\_aset (hash=94095983218480, key=key@entry=808451, val=val@entry=20) at hash.c:1654  
#20 0x000055946cde243a in mjit\_add\_class\_serial (class\_serial=class\_serial@entry=404225) at mjit.c:1414 7  
#21 0x000055946cefccfab in rb\_next\_class\_serial () at vm.c:321  
#22 0x000055946cf48324 in class\_alloc (klass=, flags=28) at class.c:178  
#23 rb\_include\_class\_new (module=module@entry=94096115733840, super=0) at class.c:820  
#24 0x000055946cf487ac in include\_modules\_at (klass=class@entry=94096135960920, c=, module=, module@entry=94096115734160, search\_super=search\_super@entry=1) at class.c:913  
#25 0x000055946cf48ac8 in rb\_include\_module (klass=94096135960920, module=module@entry=94096115734160) at class.c:870  
#26 0x000055946cd84993 in rb\_mod\_append\_features (module=94096115734160, include=) at eval.c:1178  
#27 0x000055946cf06829 in vm\_call0\_cfunc\_with\_frame (ci=0x7ffd6f6c9a20, cc=0x7ffd6f6c9ba0, argv=0x7ffd6f6c9ba0, calling=0x7ffd6f6c9a30, ec=0x55946da519c8) at vm\_eval.c:87  
#28 vm\_call0\_cfunc (argv=0x7ffd6f6c9ba0, cc=0x7ffd6f6c9ba0, ci=0x7ffd6f6c9a20, calling=0x7ffd6f6c9a30, ec=0x55946da519c8) at vm\_eval.c:102  
#29 vm\_call0\_body (ec=ec@entry=0x55946da519c8, calling=calling@entry=0x7ffd6f6c9ae0, ci=ci@entry=0x7ffd6f6c9ad0, cc=cc@entry=0x7ffd6f6c9b00, argv=argv@entry=0x7ffd6f6c9ba0) at vm\_eval.c:133  
#30 0x000055946cf074b2 in vm\_call0 (me=, argv=0x7ffd6f6c9ba0, argc=1, id=4849, recv=94096115734160, ec=0x55946da519c8) at vm\_eval.c:60  
#31 rb\_call0 (ec=0x55946da519c8, recv=94096115734160, mid=4849, mid@entry=94096135960920, argc=argc@entry=1, argv=argv@entry=0x7ffd6f6c9ba0, scope=scope@entry=CALL\_FCALL, self=94096135960920) at vm\_eval.c:302  
#32 0x000055946cf07b9b in rb\_call (scope=CALL\_FCALL, argv=0x7ffd6f6c9ba0, argc=1, mid=94096135960920, recv=) at vm\_eval.c:595  
#33 rb\_funcallv (recv=, mid=mid@entry=4849, argc=argc@entry=1, argv=argv@entry=0x7ffd6f6c9ba0) at vm\_eval.c:825  
#34 0x000055946cd848a7 in rb\_mod\_include (argc=0, argv=0x7fc7bdb4fce8, module=94096135960920) at eval.c:1203  
#35 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x5594710c06b0, cc=, calling=, reg\_cfp=0x7fc7bdc4df00, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#36 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4df00, calling=, ci=0x5594710c06b0, cc=) at vm\_inshelper.c:1944  
#37 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#38 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#39 0x000055946cf035fc in invoke\_block (captured=0x7ffd6f6ca0a0, opt\_pc=, type=, cref=0x559476c23930, self=94096135960920, iseq=0x559471335ee0, ec=0x55946da519c8) at vm.c:1005  
#40 invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x7ffd6f6ca0a0, self=94096135960920, argc=, argv=, passed\_block\_handler=0, cref=0x559476c23930, is\_lambda=0) at vm.c:1057  
#41 0x000055946cf04520 in invoke\_block\_from\_c\_bh (ec=ec@entry=0x55946da519c8, block\_handler=, argc=argc@entry=1, argv=argv@entry=0x7ffd6f6ca108, cref=, is\_lambda=, is\_lambda@entry=0, force\_blockarg=0, passed\_block\_handler=0) at vm.c:1075  
#42 0x000055946cf04958 in vm\_yield\_with\_cref (is\_lambda=0, cref=, argv=0x7ffd6f6ca108, argc=1, ec=0x55946da519c8) at vm.c:1112  
#43 yield\_under (under=94096135960920, self=, argc=argc@entry=1, argv=argv@entry=0x7ffd6f6ca108) at vm\_eval.c:1572  
#44 0x000055946cf04b12 in rb\_mod\_module\_exec (argc=argc@entry=1, argv=argv@entry=0x7ffd6f6ca108, mod=) at vm\_eval.c:1770  
#45 0x000055946ce00fc6 in rb\_mod\_initialize (module=94096135960920) at object.c:1978  
#46 0x000055946cf06829 in vm\_call0\_cfunc\_with\_frame (ci=0x7ffd6f6ca130, cc=0x7fc7bdb4fc98, argv=0x7fc7bdb4fc98, calling=0x7ffd6f6ca140, ec=0x55946da519c8) at vm\_eval.c:87  
#47 vm\_call0\_cfunc (argv=0x7fc7bdb4fc98, cc=0x7fc7bdb4fc98, ci=0x7ffd6f6ca130, calling=0x7ffd6f6ca140, ec=0x55946da519c8) at vm\_eval.c:102  
#48 vm\_call0\_body (ec=ec@entry=0x55946da519c8, calling=calling@entry=0x7ffd6f6ca1f0, ci=ci@entry=0x7ffd6f6ca1e0, cc=cc@entry=0x7ffd6f6ca210, argv=argv@entry=0x7fc7bdb4fc98) at vm\_eval.c:133  
#49 0x000055946cf074b2 in vm\_call0 (me=, argv=0x7fc7bdb4fc98, argc=0, id=3057, recv=94096135960920, ec=0x55946da519c8) at vm\_eval.c:60  
#50 rb\_call0 (ec=0x55946da519c8, recv=recv@entry=94096135960920, mid=mid@entry=3057, argc=argc@entry=3057, argv=argv@entry=0x0, scope=scope@entry=CALL\_FCALL, self=94095983466120) at vm\_eval.c:302  
#51 0x000055946cf07b9b in rb\_call (scope=CALL\_FCALL, argv=0x0, argc=3057, mid=3057, recv=94096135960920) at vm\_eval.c:595  
#52 rb\_funcallv (recv=recv@entry=94096135960920, mid=mid@entry=3057, argc=argc@entry=0, argv=argv@entry=0x7fc7bdb4fc98) at vm\_eval.c:825  
#53 0x000055946cd89673 in rb\_obj\_call\_init (obj=obj@entry=94096135960920, argc=argc@entry=0, argv=argv@entry=0x7fc7bdb4fc98) at eval.c:1590  
#54 0x000055946ce048a1 in rb\_class\_s\_new (argc=0, argv=0x7fc7bdb4fc98, klass=) at object.c:2153  
#55 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x559471339c80, cc=, calling=, reg\_cfp=0x7fc7bdc4dfa8, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#56 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4dfa8, calling=, ci=0x559471339c80, cc=) at vm\_inshelper.c:1944  
#57 0x000055946cf03cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#58 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#59 0x000055946cf03274 in invoke\_bmethod (ec=ec@entry=0x55946da519c8, iseq=iseq@entry=0x55946f15cb0c, self=self@entry=94096115734640, me=me@entry=0x559475664e28, type=type@entry=572653825, opt\_pc=0, captured=0x55947158e8a0) at vm.c:1026  
#60 0x000055946cf03534 in invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x55947158e8a0, self=94096115734640, argc=, argv=, passed\_block\_handler=0, cref=0x0, is\_lambda=1) at vm.c:1060  
#61 0x000055946cf036ce in invoke\_block\_from\_c\_proc (ec=, proc=, self=, argc=1, argv=, passed\_block\_handler=, is\_lambda=) at vm.c:1150  
#62 0x000055946cf03811 in vm\_invoke\_bmethod (block\_handler=, argv=, argc=1, self=, proc=, ec=0x55946da519c8) at vm.c:1175  
#63 vm\_call\_bmethod\_body (ci=, cc=0x55946f625960, argv=, calling=0x7ffd6f6ca9b0, ec=0x55946da519c8) at vm\_inshelper.c:1971  
#64 vm\_call\_bmethod (ec=0x55946da519c8, cfp=0x7fc7bdc4e0c0, calling=0x7ffd6f6ca9b0, ci=, cc=0x55946f625960) at vm\_inshelper.c:1988  
#65 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4e0c0, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#66 0x000055946cf0e63e in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:797  
#67 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804

#68 0x000055946cf06767 in vm\_call0\_body (ec=ec@entry=0x55946da519c8, calling=calling@entry=0x7fd6f6cad00, ci=ci@entry=0x7fd6f6cacf0, cc=cc@entry=0x7fd6f6cad20, argv=argv@entry=0x7fd6f6cadb0) at vm\_eval.c:129  
#69 0x000055946cf074b2 in vm\_call0 (me=, argv=0x7fd6f6cadb0, argc=1, id=3681, recv=94096115734640, ec=0x55946da519c8) at vm\_eval.c:60  
#70 rb\_call0 (ec=0x55946da519c8, recv=recv@entry=94096115734640, mid=3681, argc=argc@entry=1, argv=argv@entry=0x7fd6f6cad90, scope=scope@entry=CALL\_FCALL, self=94095983452880) at vm\_eval.c:302  
#71 0x000055946cf07b9b in rb\_call (scope=CALL\_FCALL, argv=0x7fd6f6cad90, argc=1, mid=, recv=94096115734640) at vm\_eval.c:595  
#72 rb\_funcallv (recv=recv@entry=94096115734640, mid=, argc=argc@entry=1, argv=argv@entry=0x7fd6f6cadb0) at vm\_eval.c:825  
#73 0x000055946cf477d2 in rb\_class\_inherited (super=super@entry=94096115734640, klass=klass@entry=94096135961440) at class.c:625  
#74 0x000055946cf0f796 in vm\_declare\_class (super=, cbase=94096094868200, flags=, id=847387) at vm\_inshelper.c:3134  
#75 vm\_define\_class (super=, cbase=, flags=, id=847387) at vm\_inshelper.c:3167  
#76 vm\_find\_or\_create\_class\_by\_id (super=, cbase=, flags=, id=847387) at vm\_inshelper.c:3196  
#77 vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:685  
#78 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#79 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x559471f1b548) at vm.c:2046  
#80 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94096135872160, wrap=wrap@entry=0) at load.c:611  
#81 0x000055946cdd41f1 in rb\_require\_internal (fname=94096135872400, fname@entry=94096135872440, safe=0) at load.c:992  
#82 0x000055946cdd4493 in rb\_require\_safe (safe=, fname=94096135872440) at load.c:1038  
#83 rb\_f\_require (obj=, fname=94096135872440) at load.c:820  
#84 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x5594708700a0, cc=, calling=, reg\_cfp=0x7fc7bdc4e168, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#85 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e168, calling=, ci=0x5594708700a0, cc=) at vm\_inshelper.c:1944  
#86 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4e168, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#87 0x000055946cf0e63e in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:797  
#88 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#89 0x000055946cf035fc in invoke\_block (captured=0x7fc7bdc4e490, opt\_pc=, type=, cref=0x0, self=94096096426480, iseq=0x55946e49f0b8, ec=0x55946da519c8) at vm.c:1005  
#90 invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x7fc7bdc4e490, self=94096096426480, argc=, argv=, passed\_block\_handler=0, cref=0x0, is\_lambda=0) at vm.c:1057  
#91 0x000055946cf04699 in invoke\_block\_from\_c\_bh (argc=, passed\_block\_handler=, cref=, is\_lambda=, force\_blockarg=, argv=, block\_handler=, ec=) at vm.c:1075  
#92 vm\_yield (argc=1, argv=0x7fd6f6cb938, ec=) at vm.c:1120  
#93 rb\_yield\_0 (argv=0x7fd6f6cb938, argc=1) at vm\_eval.c:980  
#94 rb\_yield\_1 (val=94096130169040) at vm\_eval.c:986  
#95 rb\_yield (val=) at vm\_eval.c:996  
#96 0x000055946cf2113d in rb\_ary\_each (ary=94096076222560) at array.c:1820  
#97 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946ed0d090, cc=, calling=, reg\_cfp=0x7fc7bdc4e478, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#98 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e478, calling=, ci=0x55946ed0d090, cc=) at vm\_inshelper.c:1944  
#99 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#100 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#101 0x000055946cf035fc in invoke\_block (captured=0x7fc7bdc4e500, opt\_pc=, type=, cref=0x0, self=94096096426480, iseq=0x55946e49f298, ec=0x55946da519c8) at vm.c:1005  
#102 invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x7fc7bdc4e500, self=94096096426480, argc=, argv=, passed\_block\_handler=0, cref=0x0, is\_lambda=0) at vm.c:1057  
#103 0x000055946cf04699 in invoke\_block\_from\_c\_bh (argc=, passed\_block\_handler=, cref=, is\_lambda=, force\_blockarg=, argv=, block\_handler=, ec=) at vm.c:1075  
#104 vm\_yield (argc=1, argv=0x7fd6f6cbdf8, ec=) at vm.c:1120  
#105 rb\_yield\_0 (argv=0x7fd6f6cbdf8, argc=1) at vm\_eval.c:980  
#106 rb\_yield\_1 (val=94096095502480) at vm\_eval.c:986  
#107 rb\_yield (val=) at vm\_eval.c:996  
#108 0x000055946cf2113d in rb\_ary\_each (ary=94096095328480) at array.c:1820  
#109 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e8552a0, cc=, calling=, reg\_cfp=0x7fc7bdc4e4e8, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#110 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e4e8, calling=, ci=0x55946e8552a0, cc=) at vm\_inshelper.c:1944  
#111 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#112 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#113 0x000055946cf06767 in vm\_call0\_body (ec=ec@entry=0x55946da519c8, calling=calling@entry=0x7fd6f6cc2d0, ci=ci@entry=0x7fd6f6cc2c0, cc=cc@entry=0x7fd6f6cc2f0, argv=argv@entry=0x7fd6f6cc390) at vm\_eval.c:129  
#114 0x000055946cf074b2 in vm\_call0 (me=, argv=0x7fd6f6cc390, argc=0, id=135807, recv=94096096186440, ec=0x55946da519c8) at vm\_eval.c:60  
#115 rb\_call0 (ec=0x55946da519c8, recv=94096096186440, mid=135807, argc=, argv=argv@entry=0x8, scope=scope@entry=CALL\_PUBLIC, self=94095993048320) at vm\_eval.c:302  
#116 0x000055946cf0a31a in rb\_call (scope=CALL\_PUBLIC, argv=0x8, argc=, mid=, recv=) at vm\_eval.c:595  
#117 rb\_funcall\_with\_block (recv=, mid=, argc=argc@entry=0, argv=argv@entry=0x7fd6f6cc390, passed\_procval=passed\_procval@entry=8) at vm\_eval.c:857  
#118 0x000055946ceb319c in rb\_sym\_proc\_call (mid=, argc=argc@entry=1, argv=argv@entry=0x7fd6f6cc388, passed\_proc=passed\_proc@entry=8) at string.c:10480  
#119 0x000055946cf077c in vm\_yield\_with\_symbol (block\_handler=0, argv=0x7fd6f6cc388, argc=1, symbol=, ec=) at vm\_inshelper.c:2573  
#120 invoke\_block\_from\_c\_bh (argc=, passed\_block\_handler=, cref=, is\_lambda=, force\_blockarg=, argv=, block\_handler=, ec=) at vm.c:1084  
#121 vm\_yield (argc=1, argv=0x7fd6f6cc388, ec=) at vm.c:1120  
#122 rb\_yield\_0 (argv=0x7fd6f6cc388, argc=1) at vm\_eval.c:980

#123 rb\_yield\_1 (val=94096096186440) at vm\_eval.c:986  
#124 rb\_yield (val=) at vm\_eval.c:996  
#125 0x000055946cf2113d in rb\_ary\_each (ary=94095993048320) at array.c:1820  
#126 0x000055946cfb61f in vm\_call\_cfunc\_with\_frame (ci=0x5594744d8280, cc=, calling=, reg\_cfp=0x7fc7bdc4e590, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#127 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e590, calling=, ci=0x5594744d8280, cc=) at vm\_inshelper.c:1944  
#128 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4e590, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#129 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#130 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#131 0x000055946cf035fc in invoke\_block (captured=0x7ffd6f6cc8e0, opt\_pc=, type=, cref=0x559474604128, self=94096096426480, iseq=0x5594745027e8, ec=0x55946da519c8) at vm.c:1005  
#132 invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x7ffd6f6cc8e0, self=94096096426480, argc=, argv=, passed\_block\_handler=0, cref=0x559474604128, is\_lambda=0) at vm.c:1057  
#133 0x000055946cf04520 in invoke\_block\_from\_c\_bh (ec=ec@entry=0x55946da519c8, block\_handler=, argc=argc@entry=1, argv=argv@entry=0x7fc7bdb4f7f8, cref=, is\_lambda=, is\_lambda@entry=0, force\_blockarg=0, passed\_block\_handler=0) at vm.c:1075  
#134 0x000055946cf04958 in vm\_yield\_with\_cref (is\_lambda=0, cref=, argv=0x7fc7bdb4f7f8, argc=1, ec=0x55946da519c8) at vm.c:1112  
#135 yield\_under (under=94096093646040, self=, argc=1, argv=0x7fc7bdb4f7f8) at vm\_eval.c:1572  
#136 0x000055946cfb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e5cd230, cc=, calling=, reg\_cfp=0x7fc7bdc4e600, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#137 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e600, calling=, ci=0x55946e5cd230, cc=) at vm\_inshelper.c:1944  
#138 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#139 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#140 0x000055946cf035fc in invoke\_block (captured=0x5594744c4fb0, opt\_pc=, type=, cref=0x0, self=94095990659320, iseq=0x55946e192aa0, ec=0x55946da519c8) at vm.c:1005  
#141 invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x5594744c4fb0, self=94095990659320, argc=, argv=, passed\_block\_handler=0, cref=0x0, is\_lambda=0) at vm.c:1057  
#142 0x000055946cf04699 in invoke\_block\_from\_c\_bh (argc=, passed\_block\_handler=, cref=, is\_lambda=, force\_blockarg=, argv=, block\_handler=, ec=) at vm.c:1075  
#143 vm\_yield (argc=1, argv=0x7ffd6f6ccdc8, ec=) at vm.c:1120  
#144 rb\_yield\_0 (argv=0x7ffd6f6ccdc8, argc=1) at vm\_eval.c:980  
#145 rb\_yield\_1 (val=94096094867920) at vm\_eval.c:986  
#146 rb\_yield (val=) at vm\_eval.c:996  
#147 0x000055946cf2113d in rb\_ary\_each (ary=94096094867160) at array.c:1820  
#148 0x000055946cf06829 in vm\_call0\_cfunc\_with\_frame (ci=0x7ffd6f6cce00, cc=0x7ffd6f6cce70, argv=0x7fc7bdb4f6b8, calling=0x7ffd6f6cce50, ec=0x55946da519c8) at vm\_eval.c:87  
#149 vm\_call0\_cfunc (argv=0x7fc7bdb4f6b8, cc=0x7ffd6f6cce70, ci=0x7ffd6f6cce00, calling=0x7ffd6f6cce50, ec=0x55946da519c8) at vm\_eval.c:102  
#150 vm\_call0\_body (ec=0x55946da519c8, calling=calling@entry=0x7ffd6f6cccec0, ci=ci@entry=0x7ffd6f6ccceb0, cc=cc@entry=0x7ffd6f6cccee0, argv=0x7fc7bdb4f6b8) at vm\_eval.c:133  
#151 0x000055946cf06c50 in vm\_call0 (me=, argv=, argc=, id=, recv=, ec=) at vm\_eval.c:60  
#152 rb\_vm\_call (ec=, recv=, id=, argc=, argv=, me=) at vm\_eval.c:209  
#153 0x000055946cfb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946dba2780, cc=, calling=, reg\_cfp=0x7fc7bdc4e7c0, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#154 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e7c0, calling=, ci=0x55946dba2780, cc=) at vm\_inshelper.c:1944  
#155 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4e7c0, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#156 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#157 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#158 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x55946dfed3a8) at vm.c:2046  
#159 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94095988939080, wrap=wrap@entry=0) at load.c:611  
#160 0x000055946cdd41f1 in rb\_require\_internal (fname=94095988939160, fname@entry=94095988939200, safe=0) at load.c:992  
#161 0x000055946cdd4493 in rb\_require\_safe (safe=, fname=94095988939200) at load.c:1038  
#162 rb\_f\_require (obj=, fname=94095988939200) at load.c:820  
#163 0x000055946cfb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946dffa920, cc=, calling=, reg\_cfp=0x7fc7bdc4e948, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#164 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e948, calling=, ci=0x55946dffa920, cc=) at vm\_inshelper.c:1944  
#165 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4e948, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#166 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#167 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#168 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x55946dfef438) at vm.c:2046  
#169 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94095993039280, wrap=wrap@entry=0) at load.c:611  
#170 0x000055946cdd41f1 in rb\_require\_internal (fname=fname@entry=94095993043840, safe=0) at load.c:992  
#171 0x000055946cdd4493 in rb\_require\_safe (safe=, fname=94095993043840) at load.c:1038  
#172 rb\_f\_require (obj=, fname=94095993043840) at load.c:820  
#173 0x000055946cfb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946ea12160, cc=, calling=, reg\_cfp=0x7fc7bdc4e9b8, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#174 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4e9b8, calling=, ci=0x55946ea12160, cc=) at vm\_inshelper.c:1944  
#175 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4e9b8, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#176 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#177 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804

#178 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x55946e3d7c48) at vm.c:2046  
#179 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94095988920840, wrap=) at load.c:611  
#180 0x000055946cdd2850 in rb\_load\_internal (wrap=0, fname=94095988920840) at load.c:642  
#181 rb\_f\_load (argc=, argv=) at load.c:710  
#182 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e7c96e0, cc=, calling=, reg\_cfp=0x7fc7bdc4ea28, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#183 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4ea28, calling=, ci=0x55946e7c96e0, cc=) at vm\_inshelper.c:1944  
#184 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4ea28, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#185 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#186 0x000055946cf02f4c in vm\_exec (ec=ec@entry=0x55946da519c8) at vm.c:1804  
#187 0x000055946cf035fc in invoke\_block (captured=0x7fc7bdc4eae8, opt\_pc=, type=, cref=0x0, self=9409598891400, iseq=0x55946e4dae10, ec=0x55946da519c8) at vm.c:1005  
#188 invoke\_iseq\_block\_from\_c (ec=0x55946da519c8, captured=0x7fc7bdc4eae8, self=9409598891400, argc=, argv=, passed\_block\_handler=0, cref=0x0, is\_lambda=0) at vm.c:1057  
#189 0x000055946cf04699 in invoke\_block\_from\_c\_bh (argc=, passed\_block\_handler=, cref=, is\_lambda=, force\_blockarg=, argv=, block\_handler=, ec=) at vm.c:1075  
#190 vm\_yield (argc=1, argv=0x7fd6f6ce8e8, ec=) at vm.c:1120  
#191 rb\_yield\_0 (argv=0x7fd6f6ce8e8, argc=1) at vm\_eval.c:980  
#192 rb\_yield\_1 (val=94095988924840) at vm\_eval.c:986  
#193 rb\_yield (val=) at vm\_eval.c:996  
#194 0x000055946cf2113d in rb\_ary\_each (ary=94095988920960) at array.c:1820  
#195 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e421000, cc=, calling=, reg\_cfp=0x7fc7bdc4ead0, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#196 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4ead0, calling=, ci=0x55946e421000, cc=) at vm\_inshelper.c:1944  
#197 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4ead0, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#198 0x000055946cf0cb05 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:716  
#199 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#200 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x55946e35f2c0) at vm.c:2046  
#201 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94095992643280, wrap=) at load.c:611  
#202 0x000055946cdd2850 in rb\_load\_internal (wrap=0, fname=94095992643280) at load.c:642  
#203 rb\_f\_load (argc=, argv=) at load.c:710  
#204 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e24bb20, cc=, calling=, reg\_cfp=0x7fc7bdc4ec58, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#205 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4ec58, calling=, ci=0x55946e24bb20, cc=) at vm\_inshelper.c:1944  
#206 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4ec58, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#207 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#208 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#209 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x55946e3a7390) at vm.c:2046  
#210 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94095993616120, wrap=) at load.c:611  
#211 0x000055946cdd2850 in rb\_load\_internal (wrap=0, fname=94095993616120) at load.c:642  
#212 rb\_f\_load (argc=, argv=) at load.c:710  
#213 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e6a00d0, cc=, calling=, reg\_cfp=0x7fc7bdc4ecc8, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#214 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4ecc8, calling=, ci=0x55946e6a00d0, cc=) at vm\_inshelper.c:1944  
#215 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4ecc8, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#216 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#217 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#218 0x000055946cf118d1 in rb\_iseq\_eval (iseq=iseq@entry=0x55946e470100) at vm.c:2046  
#219 0x000055946cdd2164 in rb\_load\_internal0 (ec=ec@entry=0x55946da519c8, fname=fname@entry=94095993672200, wrap=) at load.c:611  
#220 0x000055946cdd2850 in rb\_load\_internal (wrap=0, fname=94095993672200) at load.c:642  
#221 rb\_f\_load (argc=, argv=) at load.c:710  
#222 0x000055946cefb61f in vm\_call\_cfunc\_with\_frame (ci=0x55946e3306a0, cc=, calling=, reg\_cfp=0x7fc7bdc4efa0, ec=0x55946da519c8) at vm\_inshelper.c:1928  
#223 vm\_call\_cfunc (ec=0x55946da519c8, reg\_cfp=0x7fc7bdc4efa0, calling=, ci=0x55946e3306a0, cc=) at vm\_inshelper.c:1944  
#224 0x000055946cf03ea3 in vm\_call\_method (ec=0x55946da519c8, cfp=0x7fc7bdc4efa0, calling=, ci=, cc=) at vm\_inshelper.c:2417  
#225 0x000055946cf0b5c2 in vm\_exec\_core (ec=ec@entry=0x55946da519c8, initial=initial@entry=0) at /tmp/ruby-build.20180216151216.13740/ruby-trunk/insns.def:779  
#226 0x000055946cf02f4c in vm\_exec (ec=0x55946da519c8) at vm.c:1804  
#227 0x000055946cf119d5 in rb\_iseq\_eval\_main (iseq=iseq@entry=0x55946e4bbba0) at vm.c:2057  
#228 0x000055946cd83d54 in ruby\_exec\_internal (n=0x55946e4bbba0) at eval.c:247  
#229 0x000055946cd87fd5 in ruby\_exec\_node (n=0x55946e4bbba0) at eval.c:311  
#230 ruby\_run\_node (n=) at eval.c:303  
#231 0x000055946cd831bf in main (argc=22, argv=0x7fd6f6d0148) at ./main.c:42

## History

#1 - 06/12/2008 11:31 AM - shyouhei (Shyouhei Urabe)

=begin  
Gianluigi Spagnuolo wrote:

Rational#power2, when passed Rational, loop if the argument is 0.

For example:

```
Rational.new!(3, 4).power2(Rational.new!(0, 3))
```

That's because you're using unrecommended new! and undocumented power2, both are not expected to be used. Rational(3, 4) \*\* Rational(0, 3) should return immediately.

Index: lib/mathn.rb

=====

--- lib/mathn.rb (revision 17088)

+++ lib/mathn.rb (working copy)

@@ -186,6 +186,7 @@

```
def power2(other)
```

```
  if other.kind_of?(Rational)
```

```
    • other = Rational.reduce(other.numerator, other.denominator) if self < 0 return Complex(self, 0) ** other elsif other == 0
```

```
=end
```

**#2 - 07/04/2008 07:43 PM - matz (Yukihiro Matsumoto)**

- Status changed from Open to Closed

- Assignee set to matz (Yukihiro Matsumoto)

```
=begin
```

```
=end
```