Ruby master - Bug #5993

Thread.new{ Fiber.new { Thread.exit }.resume }.join で例外

02/10/2012 01:59 AM - nagachika (Tomoyuki Chikanaga)

Status: Closed
Priority: Normal
Assignee: nagachika (Tomoyuki Chikanaga)
Target version: 2.0.0
ruby -v: ruby 2.0.0dev (2012-02-09 trunk 34514) [x86_64-darwin10.8.0]

Description
以下のように Fiber 内で Thread.exit するとメッセージが空の RuntimeError が発生します。
Thread.new{ Fiber.new { Thread.exit }.resume }.join #=> RuntimeError:

rb_fiber_start() で Thread.exit 時の TAG_FATAL での TAG_JUMP を想定していないためと思います。まずは以下のようにすると例外にならなくなります。

あと th->errinfo は空を Qnil としているのに th->thrown_errinfo は 0 (Qfalse)を空であることを示すのに使っているので、その食い違いで thrown_errinfo に Qnil を入れてしまっていた（rb_vm_make_jump_tag_but_local_jump() の結果が Qnil の時）のが原因のようなので、そちらをなんとかすべきかもしれません。全体的に thrown_errinfo も空を意味するために Qnil を使うようにそろえるとか?

--- a/cont.c
+++ b/cont.c
@@ -1152,6 +1152,9 @@ rb_fiber_start(void)
 if (state == TAG_RAISE) {
     th->thrown_errinfo = th->errinfo;
 } else if (state == TAG_FATAL && th->errinfo == INT2FIX(TAG_FATAL)) {
-    /* terminating */
+    th->thrown_errinfo = rb_vm_make_jump_tag_but_local_jump(state, th->errinfo);
 
 Related issues:
Related to Ruby master - Bug #6575: Thread#kill sets rb_errinfo() to Fixnum 8...

Associated revisions
Revision 54619f8d - 12/15/2012 03:46 PM - nagachika (Tomoyuki Chikanaga)

- cont.c (rb_fiber_start): don't enqueue Qnil to async.Errinfo_queue.
  rb_vm_make_jump_tag_but_local_jump() could return Qnil (ex. when
  finished by Thread.exit). [ruby-dev:45218] [Bug #5993]
- test/ruby/test_fiber.rb (test_exit_in_fiber): add test for it.

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@38414 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

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Revision 6a35c26b - 12/22/2012 06:45 AM - nagachika (Tomoyuki Chikanaga)

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* thread.c (rb_threadptr_execute_interrupts): now INT2FIX(TAG_FATAL) can be popped from async_errinfo_queue.

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History

#1 - 03/18/2012 06:46 PM - shyouhei (Shyouhei Urabe)
- Status changed from Open to Assigned

#2 - 04/27/2012 11:41 PM - ko1 (Koichi Sasada)

#3 - 04/29/2012 01:02 AM - nagachika (Tomoyuki Chikanaga)
先のパッチをテストしていて、これだけでは不十分で確か Fiber 内で fatal() を呼んだりした時の挙動に問題があったためもう少し考えないといけないなぁ、というところで止まってたと思います。

ちょっとどうやら作業していたブランチを消してしまったみたいで、すぐには具体的な内容を思い出せないのですが、少し調べてみてこの修正とは別の問題として切り分けられそうであれば別チケットを作ろうかと思います。

#4 - 12/16/2012 12:46 AM - nagachika (Tomoyuki Chikanaga)
- Status changed from Assigned to Closed
- % Done changed from 0 to 100

This issue was solved with changeset r38414.
Tomoyuki, thank you for reporting this issue.
Your contribution to Ruby is greatly appreciated.
May Ruby be with you.

- cont.c (rb_fiber_start): don't enqueue Qnil to async_errinfo_queue.
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- test/ruby/test_fiber.rb (test_exit_in_fiber): add test for it.

#5 - 12/16/2012 02:02 AM - nagachika (Tomoyuki Chikanaga)
Fiber内 rb_fatal() はメソッドを http://bugs.ruby-lang.org/issues/7570 として新しくチケットを作成しました。

#6 - 12/18/2012 11:19 PM - nagachika (Tomoyuki Chikanaga)
- Status changed from Closed to Open
- r38414 がコミットされると Fiber の状態が Thread.exit の状態で Thread も正常に進行した。

Thread.start{  
  Fiber.new{ Thread.exit }.resume  
p :unreachable  # <- 違うはず。
}.join

async_errinfo_queue に INT2FIX(TAG_FATAL) をコピーするように。

#7 - 12/19/2012 02:31 AM - nagachika (Tomoyuki Chikanaga)
- File thread_exit_in_fiber.patch added
- Status changed from Open to Assigned

rb_threadptr_execute_interrupts() が anon_async_errinfo_queue に INT2FIX(TAG_FATAL) をコピーし、rb_threadptr_to_kill() が anon_async_errinfo_queue の Fiber に INT2FIX(TAG_FATAL) を anon_async_errinfo_queue にコピーする。

前に r38414 が rb_vm_make_jump_tag_but_local_jump() が TAG_FATAL をコピーするように。

make check を再実行する必要がある。

#8 - 12/22/2012 03:45 PM - nagachika (Tomoyuki Chikanaga)
- Status changed from Assigned to Closed

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Files

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<tr>
<td>thread_exit_in_fiber.patch</td>
<td>1.93 KB</td>
<td>12/19/2012</td>
<td>nagachika (Tomoyuki Chikanaga)</td>
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