Ruby - Bug #4681

Timeout.timeout doesn't actually time out?

05/13/2011 06:44 AM - meta (mathew murphy)

Status: Rejected

Priority: Normal

Assignee: akr (Akira Tanaka)

Target version: 1.9.3

ruby -v: 1.9.2p180 **Backport:**

Description

Documentation for Timeout says "A way of performing a potentially long-running operation in a thread, and terminating its execution if it hasn't finished by a fixed amount of time."

This doesn't actually seem to be what it does.

Example code:

#!/usr/bin/ruby

encoding: UTF-8

require 'open3' require 'timeout'

puts "Time out after 2 seconds. Count them..."
result = Timeout.timeout(2) do
stdin, stdout, stderr = Open3.capture3("sleep 30")
output = stdout.read + "\n" + stderr.read
end

On my systems, this doesn't time out after 2 seconds. Instead, it runs for 30 seconds, and then throws an error saying it took longer than 2 seconds.

History

#1 - 05/13/2011 08:23 AM - normalperson (Eric Wong)

mathew murphy meta@pobox.com wrote:

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Example code:

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It's because open3 has an ensure block where it does Thread#join and that waits forever, so the timeout thread raised to unblock the

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main thread, and then it got stuck again inside the ensure block.

diff --git a/lib/open3.rb b/lib/open3.rb index b65cb19..d335f9f 100644
--- a/lib/open3.rb
+++ b/lib/open3.rb
@@ -207,6 +207,7 @@ module Open3 begin
return yield(*result)
ensure

parent_io.each{|io| io.close unless io.closed?} wait_thr.join end @@ -702,6 +703,7 @@ module Open3 begin return yield(*result) ensure

 $parent_io.each\{|io|\ io.close\ unless\ io.closed?\}$ $wait_thrs.each\,\{|t|\ t.join\ \}$ end

You can work around it by having an extra timeout block (ugly):

puts "Time out after 2 seconds. Count them..."
Timeout.timeout(2) do
result = Timeout.timeout(2) do
stdin, stdout, stderr = Open3.capture3("sleep 30")
output = stdout.read + "\n" + stderr.read
end
end

But IMHO, timeout is a very fragile module and shouldn't be relied on.

--Eric Wong

#2 - 06/26/2011 06:58 PM - naruse (Yui NARUSE)

- Status changed from Open to Assigned
- Assignee set to akr (Akira Tanaka)

#3 - 06/26/2011 07:06 PM - nahi (Hiroshi Nakamura)

- Target version set to 1.9.3

#4 - 07/10/2011 03:52 PM - kosaki (Motohiro KOSAKI)

- Status changed from Assigned to Rejected

I think Eric described the reason and workaround at commetn#1. IOW, it's spec unfortunately.

#5 - 12/08/2011 01:37 PM - meta (mathew murphy)

Just noting for the benefit of anyone else passing by that I posted a way to do popen3 with timeout at https://gist.github.com/1032297

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