Kernel.spawn sometimes executes string directly

12/02/2012 02:58 AM - jcaesar (Julius Caesar)

Status: Closed
Priority: Normal
Assignee: akr (Akira Tanaka)
Target version: 2.6
Backport:
ruby -v:
ruby 1.9.3p327 (2012-11-10 revision 37606) [x86_64-linux]

Description

Kernel.spawn throws an exception in certain cases where it shouldn't. It seems to attempt to execute the command directly, rather than passing it to the shell.

See the demo script below. What should happen, when I run this script, is that both assertions should fail, and there should be an error message from the testing framework about each test. What actually happens is that both tests pass and the test framework reports success.

```ruby
#-------------------------------
require 'test/unit'
class TestSpawn < Test::Unit::TestCase
  #> either command would work fine if executed
  # in the shell.
  def test1
    assert_raises(Errno::ENOENT) { spawn ':' }
  end
  def test2
    assert_raises(Errno::ENOENT) { spawn 'a=b true' }
  end
  end
#-------------------------------
```

My compiler is GCC, and the output of "gcc --version" is:

gcc-4.4.real (Debian 4.4.5-8) 4.4.5
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Please note that I have attached my rbconfig.rb file.

Associated revisions

Revision 2767139e - 04/03/2013 11:55 AM - akr (Akira Tanaka)

- process.c: Describe the behavior which Ruby invokes a commandline directly without shell if the commandline is simple enough. [ruby-core:50459] [Bug #7489]

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@40083 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 40083 - 04/03/2013 11:55 AM - akr (Akira Tanaka)

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Revision 40083 - 04/03/2013 11:55 AM - akr (Akira Tanaka)

process.c: Describe the behavior which Ruby invokes a commandline directly without shell if the commandline is simple enough. [Bug #7489]

History

#1 - 12/06/2012 05:23 PM - akr (Akira Tanaka)

2012/12/2 jcaesar (Julius Caesar) redmine@ruby-lang.org:

   Bug #7489: Kernel.spawn sometimes executes string directly
   https://bugs.ruby-lang.org/issues/7489

   Kernel.spawn throws an exception in certain cases where it shouldn't.
   It seems to attempt to execute the command directly, rather than passing
   it to the shell.

Ruby invokes simple commands, command line without meta characters, directly
without shell. This behavior is inherited from Perl.

We cannot remove the behavior because people assumes pid returned from
Kernel.spawn (and IO#pid for IO.popen) is the pid of invoked simple command.
If we use always invoke a command via shell, people will find they cannot
kill the command because returned pid will be the pid of shell, not the command.

However, Ruby 2.0 refines the algorithm to use shell or not.
So, your example will fail as you expected.

--
Tanaka Akira

#2 - 12/11/2012 06:05 AM - jcaesar (Julius Caesar)

Thanks for the response. My only comment is that the behaviour you describe is not documented (unless I'm missing something), and should be.

By the way, I was unaware of your reply until a short
time ago. For some reason, I was never notified
by email.

#3 - 02/17/2013 02:26 PM - ko1 (Koichi Sasada)

   - Category set to doc
   - Assignee set to akr (Akira Tanaka)
   - Target version set to 2.6

Akr-san, could you add a documentation?

03/12/2022
This issue was solved with changeset r40083.
Julius, thank you for reporting this issue.
Your contribution to Ruby is greatly appreciated.
May Ruby be with you.

- process.c: Describe the behavior which Ruby invokes a commandline directly without shell if the commandline is simple enough.
[ruby-core:50459] [Bug #7489]

Files

<table>
<thead>
<tr>
<th>File</th>
<th>Size</th>
<th>Date</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>rbconfig.rb</td>
<td>8.4 KB</td>
<td>12/02/2012</td>
<td>jcaesar (Julius Caesar)</td>
</tr>
</tbody>
</table>