

Ruby master - Bug #4409

DRb: discrepancy between DRb.here? and DRb.uri leads to failure to dereference a DrbObject

02/19/2011 06:06 AM - nbondoux (Nicolas Bondoux)

Status:	Closed	
Priority:	Normal	
Assignee:	seki (Masatoshi Seki)	
Target version:	1.9.3	
ruby -v:	ruby 1.9.2p0 (2010-08-18 revision 29036) [i486-linux]	Backport:

Description

=begin

When a reference on a local object is sent back by a client to a server, it may not be recognised as a local object during marshalling: An object instance being sent as a reference is wrapped in a DRbObject built by `make_proxy` with `DRbObject.new(obj)`; the DRbObject's uri will be the uri returned by `DRb::uri`.

When this reference is sent back, `DRbObject::_load` checks if it matches uri of current server with `DRb::here?` method.

The problem is that `DRb.here?` checks that a DRbObject uri is the same as the uri which was used by current DRbServer at his creation, while `DRb.uri` will return an uri created from the local socket from current thread's connection.

So, when a DRbObject it sent back, it may not be recognized as referencing a local object

Fixing `DRb.here?` so that it compares with the uri returned by `DRb.uri` should be enough to quick fix this problem, and seems safe to me.

(I call it a quick fix because I am sure that even with this change, it is possible to build some less realistic cases with the same kind of problem, due to the fact that a same reference may be valid or not depending which client sent it back ...)

Here is a very simple proof of concept:

The server:

```
#!/usr/bin/ruby
require 'drb'
class A
  include DRb::DRbUndumped
end

class TheServer
  include DRb::DRbUndumped
  def initialize
    @a = A.new
  end

  def get_a
    @a
  end

  def is_a(iA)
    puts "inside is_a: current DRb.uri:#{DRb.uri}; iA.class = #{iA.class} #{iA.__drburi if DRb::DRbObject === iA}"
    @a.eql? iA
  end

  def getToken
    retVal = @@token.clone
    @@token.inc
    return retVal
  end

end

theServer = TheServer.new
DRb.start_service(nil,theServer)
puts "DRb.uri just after start_service: #{DRb.uri}"
```

```
DRb.thread.join
```

```
#####
```

```
The client:
```

```
#!/usr/bin/ruby  
require 'drb'
```

```
theServer = DRb::DRbObject.new(nil,ARGV.shift)
```

```
a = theServer.get_a  
puts "a.drhuri == #{a.drhuri}"  
puts "theServer.is_a(a) == #{theServer.is_a(a)}"
```

```
#####
```

```
the outputs:
```

```
server side:
```

```
DRb.uri just after start_service: druby://Venus:60106
```

```
inside is_a: current DRb.uri:druby://127.0.0.1:60106; iA.class = DRb::DRbObject druby://127.0.0.1:60106
```

```
client side:
```

```
a.__drhuri == druby://127.0.0.1:60106
```

```
theServer.is_a(a) == false
```

```
Cheers,
```

```
Nicolas
```

```
=end
```

Associated revisions

Revision 190bc7ae - 06/27/2011 03:18 PM - seki (Masatoshi Seki)

fix [Bug #4409]. add DRbServer#here?

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@32254 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 32254 - 06/27/2011 03:18 PM - seki (Masatoshi Seki)

fix [Bug #4409]. add DRbServer#here?

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Revision 32254 - 06/27/2011 03:18 PM - seki (Masatoshi Seki)

fix [Bug #4409]. add DRbServer#here?

Revision 78a7866e - 08/11/2011 12:37 AM - yugui (Yuki Sonoda)

merges r32254 from trunk into ruby_1_9_2.

fix [Bug #4409]. add DRbServer#here?

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_1_9_2@32912 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

History

#1 - 06/26/2011 05:54 PM - naruse (Yui NARUSE)

- Status changed from Open to Assigned

- Assignee set to seki (Masatoshi Seki)

#2 - 06/26/2011 06:41 PM - nahi (Hiroshi Nakamura)

- Target version set to 1.9.3

#3 - 06/28/2011 12:18 AM - seki (Masatoshi Seki)

- Status changed from Assigned to Closed

- % Done changed from 0 to 100

This issue was solved with changeset r32254.
Nicolas, thank you for reporting this issue.
Your contribution to Ruby is greatly appreciated.
May Ruby be with you.

fix [Bug [#4409](#)]. add DRbServer#here?

#4 - 11/28/2011 07:23 PM - iamcory (Cory Banks)

Nicolas, thank you for reporting this issue - <http://roofracksforvan.com>