

Ruby - Bug #16462

Ruby 2.7 autoload not working with \$RUBYLIB (maybe circular dependency error)

12/28/2019 10:14 AM - zw963 (Wei Zheng)

Status:	Closed	
Priority:	Normal	
Assignee:		
Target version:		
ruby -v:	2.7.0	Backport: 2.5: UNKNOWN, 2.6: UNKNOWN

Description

I don't know how to exactly describe this issue, following is try to reproduce.

We can use a gem named "looksee", it was supported ruby 2.7 ready.
same issue happen on several gem, looksee is just for a sample for describe this issue.

- 1. i change \$RUBYLIB ENV locally for use some gem easy. (globally used by all my own local project)

```
└─ 17:41 zw963 ~ ▯ ▯ ruby-2.7.0
└─ $ echo $RUBYLIB
/home/zw963/Dropbox/common/ruby/lib
```

- 1. Following is my directory content for my ~/Dropbox/common/ruby/lib, code is working.

```
└─ $ tree
looksee.rb
looksee
├─ adapter
│   └─ base.rb
│       └─ rubinius.rb
├─ adapter.rb
├─ clean.rb
├─ columnizer.rb
├─ core_ext.rb
├─ editor.rb
├─ help.rb
├─ inspector.rb
├─ JRuby.jar
├─ lookup_path.rb
├─ mri.2.1.0.so
├─ mri.2.2.0.so
├─ mri.2.3.0.so
├─ mri.2.4.0.so
├─ mri.2.5.0.so
├─ mri.2.6.0.so
├─ mri.2.7.0.so
└─ version.rb
```

- 1. let us run lrb, puts \$LOAD_PATH, and require 'looksee'

```
└─ 17:52 zw963 ~/Dropbox/common/ruby/lib ▯ ▯ (f99118fef) test *$% ▯ ruby-2.7.0
└─ $ RUBYOPT= irb -f
irb(main):001:0> puts $LOAD_PATH
/home/zw963/Dropbox/common/ruby/lib
/home/zw963/.rvm/rubies/ruby-2.7.0/lib/ruby/site_ruby/2.7.0
/home/zw963/.rvm/rubies/ruby-2.7.0/lib/ruby/site_ruby/2.7.0/x86_64-linux
/home/zw963/.rvm/rubies/ruby-2.7.0/lib/ruby/site_ruby
/home/zw963/.rvm/rubies/ruby-2.7.0/lib/ruby/vendor_ruby/2.7.0
/home/zw963/.rvm/rubies/ruby-2.7.0/lib/ruby/vendor_ruby/2.7.0/x86_64-linux
/home/zw963/.rvm/rubies/ruby-2.7.0/lib/ruby/vendor_ruby
/home/zw963/.rvm/rubies/ruby-2.7.0/lib/ruby/2.7.0
/home/zw963/.rvm/rubies/ruby-2.7.0/lib/ruby/2.7.0/x86_64-linux
=> nil
```

```

irb(main):002:0> require 'looksee'
Traceback (most recent call last):
  15: from /home/zw963/.rvm/rubies/ruby-2.7.0/bin/irb:23:in `'
  14: from /home/zw963/.rvm/rubies/ruby-2.7.0/bin/irb:23:in `load'
  13: from /home/zw963/others/.rvm/rubies/ruby-2.7.0/lib/ruby/gems/2.7.0/gems/irb-1.2.1/exe/irb:11:in `'
  12: from (irb):2
  11: from /home/zw963/others/.rvm/rubies/ruby-2.7.0/lib/ruby/2.7.0/rubygems/core_ext/kernel_require.rb:72:in `require'
  10: from /home/zw963/others/.rvm/rubies/ruby-2.7.0/lib/ruby/2.7.0/rubygems/core_ext/kernel_require.rb:72:in `require'
   9: from /home/zw963/Dropbox/common/ruby/lib/looksee.rb:1:in `'
   8: from /home/zw963/others/.rvm/rubies/ruby-2.7.0/lib/ruby/2.7.0/rubygems/core_ext/kernel_require.rb:72:in `require'
   7: from /home/zw963/others/.rvm/rubies/ruby-2.7.0/lib/ruby/2.7.0/rubygems/core_ext/kernel_require.rb:72:in `require'
   6: from /home/zw963/Dropbox/common/ruby/lib/looksee/clean.rb:4:in `'
   5: from /home/zw963/Dropbox/common/ruby/lib/looksee/clean.rb:171:in `'
   4: from /home/zw963/others/.rvm/rubies/ruby-2.7.0/lib/ruby/2.7.0/rubygems/core_ext/kernel_require.rb:72:in `require'
   3: from /home/zw963/others/.rvm/rubies/ruby-2.7.0/lib/ruby/2.7.0/rubygems/core_ext/kernel_require.rb:72:in `require'
   2: from /home/zw963/Dropbox/common/ruby/lib/looksee/adapter.rb:1:in `'
   1: from /home/zw963/Dropbox/common/ruby/lib/looksee/adapter.rb:2:in `'
NameError (uninitialized constant Looksee::Adapter)
irb(main):003:0>
irb(main):002:0>

```

1. the reason cause this is, i guess, following code is not working, some **circular dependency** was happen.

```

module Looksee
  ...
  autoload :Adapter, 'looksee/adapter'
  ...
end

```

Please check the source code here:

<https://github.com/oggy/looksee/blob/master/lib/looksee/clean.rb#L12>

1. if require "looksee/adapter" directly, it working.

```

└─ $ RUBYOPT= irb -f
irb(main):001:0> require 'looksee/adapter'
=> true

```

But, if require "looksee" first, then require "looksee/adapter", still broken.

```

└─ $ RUBYOPT= irb -f
irb(main):001:0> require 'looksee'
Traceback (most recent call last):
  15: from /home/zw963/.rvm/rubies/ruby-2.7.0/bin/irb:23:in `'
  14: from /home/zw963/.rvm/rubies/ruby-2.7.0/bin/irb:23:in `load'
  13: from /home/zw963/others/.rvm/rubies/ruby-2.7.0/lib/ruby/gems/2.7.0/gems/irb-1.2.1/exe/irb:11:in `'
  12: from (irb):1
  11: from /home/zw963/others/.rvm/rubies/ruby-2.7.0/lib/ruby/2.7.0/rubygems/core_ext/kernel_require.rb:72:in `require'
  10: from /home/zw963/others/.rvm/rubies/ruby-2.7.0/lib/ruby/2.7.0/rubygems/core_ext/kernel_require.rb:72:in `require'
   9: from /home/zw963/Dropbox/common/ruby/lib/looksee.rb:1:in `'
   8: from /home/zw963/others/.rvm/rubies/ruby-2.7.0/lib/ruby/2.7.0/rubygems/core_ext/kernel_require.rb:72:in `require'
   7: from /home/zw963/others/.rvm/rubies/ruby-2.7.0/lib/ruby/2.7.0/rubygems/core_ext/kernel_require.rb:72:in `require'
   6: from /home/zw963/Dropbox/common/ruby/lib/looksee/clean.rb:4:in `'
   5: from /home/zw963/Dropbox/common/ruby/lib/looksee/clean.rb:171:in `'
   4: from /home/zw963/others/.rvm/rubies/ruby-2.7.0/lib/ruby/2.7.0/rubygems/core_ext/kernel_

```

```

require.rb:72:in `require'
  3: from /home/zw963/others/.rvm/rubies/ruby-2.7.0/lib/ruby/2.7.0/rubygems/core_ext/kernel_
require.rb:72:in `require'
  2: from /home/zw963/Dropbox/common/ruby/lib/looksee/adapter.rb:1:in `'
  1: from /home/zw963/Dropbox/common/ruby/lib/looksee/adapter.rb:2:in `'
NameError (uninitialized constant Looksee::Adapter)
irb(main):002:0> require 'looksee/adapter'
Traceback (most recent call last):
  9: from /home/zw963/.rvm/rubies/ruby-2.7.0/bin/irb:23:in `'
  8: from /home/zw963/.rvm/rubies/ruby-2.7.0/bin/irb:23:in `load'
  7: from /home/zw963/others/.rvm/rubies/ruby-2.7.0/lib/ruby/gems/2.7.0/gems/irb-1.2.1/exe/i
rb:11:in `'
  6: from (irb):1
  5: from (irb):2:in `rescue in irb_binding'
  4: from /home/zw963/others/.rvm/rubies/ruby-2.7.0/lib/ruby/2.7.0/rubygems/core_ext/kernel_
require.rb:72:in `require'
  3: from /home/zw963/others/.rvm/rubies/ruby-2.7.0/lib/ruby/2.7.0/rubygems/core_ext/kernel_
require.rb:72:in `require'
  2: from /home/zw963/Dropbox/common/ruby/lib/looksee/adapter.rb:1:in `'
  1: from /home/zw963/Dropbox/common/ruby/lib/looksee/adapter.rb:2:in `'
NameError (uninitialized constant Looksee::Adapter)
irb(main):003:0>

```

BTW: this issue never happen on ruby which version below 2.7.0

Related issues:

Related to Ruby - Bug #16680: Symlink folder in \$LOAD_PATH does not work with...

Closed

History

#1 - 12/28/2019 10:19 AM - zw963 (Wei Zheng)

- Description updated

#2 - 12/28/2019 10:48 AM - mame (Yusuke Endoh)

Unfortunately, I cannot reproduce the issue. To isolate the problem, could you uninstall "looksee" gem and check if the issue is still reproducible with other gems that use autoload?

```

$ gem install looksee
Building native extensions. This could take a while...
Successfully installed looksee-4.2.0
Parsing documentation for looksee-4.2.0
Done installing documentation for looksee after 0 seconds
1 gem installed

```

```

$ tree ~/local/lib/ruby/gems/2.7.0/gems/looksee-4.2.0/lib/
/home/mame/local/lib/ruby/gems/2.7.0/gems/looksee-4.2.0/lib/
├── looksee
│   ├── adapter
│   │   ├── base.rb
│   │   └── rubinius.rb
│   ├── adapter.rb
│   ├── clean.rb
│   ├── columnizer.rb
│   ├── core_ext.rb
│   ├── editor.rb
│   ├── help.rb
│   ├── inspector.rb
│   ├── lookup_path.rb
│   ├── mri.so
│   └── version.rb
└── looksee.rb

```

2 directories, 13 files

```

$ RUBYLIB=~/.local/lib/ruby/gems/2.7.0/gems/looksee-4.2.0/lib/ irb -f
irb(main):001:0> puts $LOAD_PATH
/home/mame/local/lib/ruby/gems/2.7.0/gems/looksee-4.2.0/lib/
/home/mame/local/lib/ruby/site_ruby/2.7.0
/home/mame/local/lib/ruby/site_ruby/2.7.0/x86_64-linux
/home/mame/local/lib/ruby/site_ruby
/home/mame/local/lib/ruby/vendor_ruby/2.7.0

```

```

/home/mame/local/lib/ruby/vendor_ruby/2.7.0/x86_64-linux
/home/mame/local/lib/ruby/vendor_ruby
/home/mame/local/lib/ruby/2.7.0
/home/mame/local/lib/ruby/2.7.0/x86_64-linux
=> nil
irb(main):002:0> require "looksee"
=> true
irb(main):003:0> Looksee::Adapter
=> Looksee::Adapter
irb(main):004:0>

```

#3 - 12/28/2019 02:37 PM - zw963 (Wei Zheng)

mame (Yusuke Endoh) wrote:

Unfortunately, I cannot reproduce the issue. To isolate the problem, could you uninstall "looksee" gem and check if the issue is still reproducible with other gems that use autoload?

```

$ gem install looksee
Building native extensions. This could take a while...
Successfully installed looksee-4.2.0
Parsing documentation for looksee-4.2.0
Done installing documentation for looksee after 0 seconds
1 gem installed

$ tree ~/local/lib/ruby/gems/2.7.0/gems/looksee-4.2.0/lib/
/home/mame/local/lib/ruby/gems/2.7.0/gems/looksee-4.2.0/lib/
├── looksee
│   ├── adapter
│   │   ├── base.rb
│   │   └── rubinius.rb
│   ├── adapter.rb
│   ├── clean.rb
│   ├── columnizer.rb
│   ├── core_ext.rb
│   ├── editor.rb
│   ├── help.rb
│   ├── inspector.rb
│   ├── lookup_path.rb
│   ├── mri.so
│   └── version.rb
└── looksee.rb

2 directories, 13 files

```

```

$ RUBYLIB=~/.local/lib/ruby/gems/2.7.0/gems/looksee-4.2.0/lib/ irb -f
irb(main):001:0> puts $LOAD_PATH
/home/mame/local/lib/ruby/gems/2.7.0/gems/looksee-4.2.0/lib/
/home/mame/local/lib/ruby/site_ruby/2.7.0
/home/mame/local/lib/ruby/site_ruby/2.7.0/x86_64-linux
/home/mame/local/lib/ruby/site_ruby
/home/mame/local/lib/ruby/vendor_ruby/2.7.0
/home/mame/local/lib/ruby/vendor_ruby/2.7.0/x86_64-linux
/home/mame/local/lib/ruby/vendor_ruby
/home/mame/local/lib/ruby/2.7.0
/home/mame/local/lib/ruby/2.7.0/x86_64-linux
=> nil
irb(main):002:0> require "looksee"
=> true
irb(main):003:0> Looksee::Adapter
=> Looksee::Adapter
irb(main):004:0>

```

Sorry, i am describe not clear.

I am not use gem install looksee way to install gem, because i need "looksee" gem can be requireable for my all ruby version, my all ruby project, or any ???rb file.

following is my process:

1. copy all gem's file into /home/zw963/Dropbox/common/ruby/lib

cd /home/zw963/Dropbox/common/ruby/lib, assume we get following file list.

```

$ tree
looksee.rb
looksee
├── adapter
│   ├── base.rb
│   └── rubinius.rb
├── adapter.rb
├── clean.rb
├── columnizer.rb
├── core_ext.rb
├── editor.rb
├── help.rb
├── inspector.rb
├── JRuby.jar
├── lookup_path.rb
├── mri.2.1.0.so
├── mri.2.2.0.so
├── mri.2.3.0.so
├── mri.2.4.0.so
├── mri.2.5.0.so
├── mri.2.6.0.so
├── mri.2.7.0.so
└── version.rb

```

1. Add /home/zw963/Dropbox/common/ruby/lib into \$RUBYLIB ENV.

2. require "looksee" in irb or any ruby file directly, please see following \$LOAD_PATH.

```

irb(main):001:0> puts $LOAD_PATH
/home/zw963/Dropbox/common/ruby/lib          # <= Please see this first one.
/home/zw963/.rvm/rubies/ruby-2.7.0/lib/ruby/site_ruby/2.7.0
/home/zw963/.rvm/rubies/ruby-2.7.0/lib/ruby/site_ruby/2.7.0/x86_64-linux
/home/zw963/.rvm/rubies/ruby-2.7.0/lib/ruby/site_ruby
/home/zw963/.rvm/rubies/ruby-2.7.0/lib/ruby/vendor_ruby/2.7.0
/home/zw963/.rvm/rubies/ruby-2.7.0/lib/ruby/vendor_ruby/2.7.0/x86_64-linux
/home/zw963/.rvm/rubies/ruby-2.7.0/lib/ruby/vendor_ruby
/home/zw963/.rvm/rubies/ruby-2.7.0/lib/ruby/2.7.0
/home/zw963/.rvm/rubies/ruby-2.7.0/lib/ruby/2.7.0/x86_64-linux

```

In fact, when i do "require "looksee"", i want to require this:

```
/home/zw963/Dropbox/common/ruby/lib/looksee.rb
```

i thought many portable/independent ruby program need work this way, right?

e.g. traveling_ruby

1. Above solution work well since 2.0.0, until update to 2.6.x, all working very well.
but not working for Ruby 2.7.0

I guess maybe some change for new #require method, or #autoload, broken this.

Thank you.

#4 - 12/28/2019 04:32 PM - zw963 (Wei Zheng)

- ruby -v set to 2.7.0

#5 - 01/14/2020 02:25 PM - zw963 (Wei Zheng)

Any update for this?

#6 - 03/07/2020 05:59 PM - zw963 (Wei Zheng)

Sorry for confusing, i find the really reason caused this issue, i will create a new issue [#16680](#) for make reproduce more clearly.

I don't know how to close this issue, can you help on this?

#7 - 03/07/2020 11:01 PM - hsbt (Hiroshi SHIBATA)

- Related to Bug #16680: Symlink folder in \$LOAD_PATH does not work with autoload added

#8 - 03/07/2020 11:01 PM - hsbt (Hiroshi SHIBATA)

- Status changed from Open to Closed

Files

DeepinScreenshot_select-area_20191228175746.png	80.3 KB	12/28/2019	zw963 (Wei Zheng)
---	---------	------------	-------------------