Ruby master - Bug #18876

OpenSSL is not available with `--with-openssl-dir`

06/23/2022 08:58 AM - Gloomy_meng (Gloomy Meng)

<table>
<thead>
<tr>
<th>Status:</th>
<th>Closed</th>
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<tbody>
<tr>
<td>Priority:</td>
<td>Normal</td>
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<tr>
<td>Assignee:</td>
<td></td>
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<td>Target version:</td>
<td>3.1.1</td>
</tr>
<tr>
<td>Backport:</td>
<td>2.7: UNKNOWN, 3.0: UNKNOWN, 3.1: UNKNOWN</td>
</tr>
</tbody>
</table>

Description

i try use ruby + gem in my macos app with .a framework, i need install ruby in a custom location.
so i make & make install openssl with this configure:

```
/usr/bin/perl Configure --prefix="......./local/dependencies" no-shared zlib darwin64-x86_64-cc
```

then make & make install ruby with this configure:

```
```

because i need to isolated environment, so i make bundle-env file for run shell. and i uploaded bundle-env file

and update gem by local

destroot/bundle/bin/bundle-env gem install downloads/rubygems-update-3.3.15.gem --no-document --env-shebang

at last, run install alway got exception:

```
destroot/bundle/bin/bundle-env gem install xxxxxxx --version="xxxxxx" --no-document --env-shebang
ERROR: While executing gem ... (Gem::Exception)
  OpenSSL is not available. Install OpenSSL and rebuild Ruby (preferred)
or use non-HTTPS sources
```

at the same env, i tried some command, and i got the right version what i make install

```
destroot/bundle/bin/bundle-env ruby --version   // ruby 3.1.1p18 (2022-02-18 revision 53f5fc4236)
  [x86_64-darwin21]
destroot/bundle/bin/bundle-env gem --version   // 3.3.15

destroot/bundle/bin/bundle-env ruby -ropenssl -e 'puts OpenSSL::OPENSSL_VERSION'
  // OpenSSL 1.1.1l 8 Dec 2020
```

i found and uploaded ext/openssl/mkmf.log and

History

#1 - 06/23/2022 03:29 PM - alanwu (Alan Wu)
- Status changed from Open to Feedback

Since bundle-env ruby -ropenssl works, I suspect it has something to
do with --env-shebang. Maybe the gem command isn't running with
the Ruby you want. Try running RUBYOPT=-v bundle-env gem and
comparing that with ruby -v (without bundle-env). You might
also want to try RUBYOPT=-vd to surface any errors while loading
OpenSSL; it looks like RubyGems loads it using an autoload:

my local version is 3.1.1 too, and run ruby -v , got ruby 3.1.1p18 (2022-02-18 revision 53f5fc4236) [x86_64-darwin20].

and i tried some different version with add RUBYOPT=-v and RUBYOPT=-vd to make a comparison.

with 3.1.1 and -vd

```
ruby 3.1.1p18 (2022-02-18 revision 53f5fc4236) [x86_64-darwin21]
Exception 'LoadError'
at /Users/didi/Documents/CocoaPods-app3.1.1/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems.rb:1323 - cannot load such file -- rubygems/defaults/operating_system
Exception 'LoadError'
at /Users/didi/Documents/CocoaPods-app3.1.1/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems.rb:1339 - cannot load such file -- rubygems/defaults/ruby
Exception 'NameError'
at /Users/didi/Documents/CocoaPods-app3.1.1/destroot/bundle/lib/ruby/3.1.0/psych/class_loader.rb:70 - uninitialized constant BigDecimal
```

```
[val, ::Object.const_get(val)]
```

```
Exception 'NameError'
at /Users/didi/Documents/CocoaPods-app3.1.1/destroot/bundle/lib/ruby/3.1.0/psych/class_loader.rb:70 - uninitialized constant Date
```

```
[val, ::Object.const_get(val)]
```

```
Exception 'NameError'
at /Users/didi/Documents/CocoaPods-app3.1.1/destroot/bundle/lib/ruby/3.1.0/psych/class_loader.rb:70 - uninitialized constant DateTime
```

```
[val, ::Object.const_get(val)]
```

```
Exception 'SyntaxError'
at /Users/didi/Documents/CocoaPods-app3.1.1/destroot/bundle/lib/ruby/3.1.0/forwardable/impl.rb:4 - <compiled>
: syntax error, unexpected end-of-input
```

```
_Exception 'SyntaxError'
at /Users/didi/Documents/CocoaPods-app3.1.1/destroot/bundle/lib/ruby/3.1.0/forwardable/impl.rb:4 - <compiled>
: syntax error, unexpected end-of-input
```

```
Exception 'Gem::Exception'
at /Users/didi/Documents/CocoaPods-app3.1.1/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/request.rb:47:
- OpenSSL is not available. Install OpenSSL and rebuild Ruby (preferred) or use non-HTTPS sources
ERROR: While executing gem "...
```

```
/OpenSSL is not available. Install OpenSSL and rebuild Ruby (preferred) or use non-HTTPS sources
```

```
/Users/didi/Documents/CocoaPods-app3.1.1/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/request.rb:47::in `configure_connection_for_https'
/Users/didi/Documents/CocoaPods-app3.1.1/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/request/https_pool.rb:6::in `setup_connection'
/Users/didi/Documents/CocoaPods-app3.1.1/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/request/http_pool.rb:39::in `make_connection'
/Users/didi/Documents/CocoaPods-app3.1.1/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/request/http_pool.rb:20::in `checkout'
/Users/didi/Documents/CocoaPods-app3.1.1/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/request.rb:129::in `connection_for'
/Users/didi/Documents/CocoaPods-app3.1.1/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/request.rb:188::in `perform_request'
/Users/didi/Documents/CocoaPods-app3.1.1/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/request.rb:154::in `fetch'
/Users/didi/Documents/CocoaPods-app3.1.1/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/remote_fetcher.rb:309::in `request'
```

```
```

```
```
with 3.1.0 and -v

[11:05:45] [Gems] destroot/bundle/bin/bundle-env gem install cocoapods --version="1.11.3" --no-document

--env-shebang

ruby 3.1.0p0 (2021-12-25 revision fb4df44d16) [x86_64-darwin21]

ERROR: While executing gem ... (Gem::Exception)

OpenSSL is not available. Install OpenSSL and rebuild Ruby (preferred) or use non-HTTPS sources

with 3.1.0 and -vd

[11:26:26] [Gems] destroot/bundle/bin/bundle-env gem install cocoapods --version="1.11.3" --no-document

--env-shebang

ruby 3.1.0p0 (2021-12-25 revision fb4df44d16) [x86_64-darwin21]

Exception 'LoadError' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/remote_fetcher.rb:1323 - cannot load such file -- rubygems/defaults/operating_system

Exception 'LoadError' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/remote_fetcher.rb:1339 - cannot load such file -- rubygems/defaults/ruby

Exception 'NameError' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/remote_fetcher.rb:1349 - cannot load such file -- rubygems/defaults/ruby

Exception 'NameError'

[11:30:45] [Gems] destroot/bundle/bin/bundle-env gem install cocoapods --version="1.11.3" --no-document

--env-shebang

ruby 3.1.0p0 (2021-12-25 revision fb4df44d16) [x86_64-darwin21]

Exception 'LoadError' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/remote_fetcher.rb:1323 - cannot load such file -- rubygems/defaults/operating_system

Exception 'LoadError' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/remote_fetcher.rb:1339 - cannot load such file -- rubygems/defaults/ruby

Exception 'NameError' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/remote_fetcher.rb:1349 - cannot load such file -- rubygems/defaults/ruby

Exception 'NameError'

Finished in 12 minutes and 18 seconds
Exception 'NameError'
' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/3.1.0/psych/class_loader.rb:70 - uninitialized constant DateTime

Exception 'SyntaxError'
' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/3.1.0/forwardable/impl.rb:4 - <compiled>: syntax error, unexpected end-of-input
().load_tags=

Exception 'SyntaxError'
' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/3.1.0/forwardable/impl.rb:4 - <compiled>: syntax error, unexpected end-of-input
().dump_tags=

Exception 'SyntaxError'
' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/3.1.0/forwardable/impl.rb:4 - <compiled>: syntax error, unexpected end-of-input
().domain_types=

Exception 'Gem::Exception'
' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/request.rb:47 - OpenSSL is not available. Install OpenSSL and rebuild Ruby (preferred) or use non-HTTPS sources
ERROR: While executing gem ... (Gem::Exception)
  OpenSSL is not available. Install OpenSSL and rebuild Ruby (preferred) or use non-HTTPS sources
  /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/request.rb:47:in `configure_connection_for_https'
  /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/request/https_pool.rb:20:in `checkout'
  /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/request.rb:129:in `connection_for'
  /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/remote_fetcher.rb:309:in `request'
  /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/source_list.rb:98:in `each'
  /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/source_list.rb:61:in `add_always_install'
  /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/dependency_installer.rb:322:in `resolve_dependencies'
  /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/commands/install_common.rb:201:in `install_gem'
  /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/commands/install_common.rb:226:in `block in install_gems'
  /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/commands/install_common.rb:219:in `each'
  /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/commands/install_common
my local version is 3.1.1 too, so i tried with 3.0.3 and 3.1.0 version for your suggestion.

with add RUBYOPT=-v and version is 3.0.3

when run

destroot/bin/bundle-env gem install downloads/rubygems-update-3.3.15.gem --no-document --env-shebang

i got error with this

ruby 3.0.3p157 (2021-11-24 revision 3fb7d2cadc) [x86_64-darwin21]
Exception 'LoadError' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/3.0.0/rubygems.rb:1332 - cannot load such file -- rubygems/defaults/ruby
Exception 'LoadError' at <internal:/Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/3.0.0/rubygems/core_ext/kernel_require.rb>:85 - cannot load such file -- rubygems/defaults/operating_system
Exception 'LoadError' at <internal:/Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/3.0.0/rubygems/core_ext/kernel_require.rb>:162 - cannot load such file -- rubygems/defaults/operating_system
Exception 'NameError' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/3.0.0/psych/class_loader.rb:70 - uninitialized constant BigDecimal
Exception 'NameError' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/3.0.0/psych/class_loader.rb:70 - uninitialized constant Date
Exception 'NameError' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/3.0.0/psych/class_loader.rb:70 - uninitialized constant DateTime
Exception 'SyntaxError' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/3.0.0/forwardable/impl.rb:4 - <compiled>: syntax error, unexpected end-of-input
Exception 'SyntaxError' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/3.0.0/forwardable/impl.rb:4 - <compiled>: syntax error, unexpected end-of-input
Exception 'Gem::MissingSpecError' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/3.0.0/rubygems/dependency.rb:311 - Gem::MissingSpecError
Exception 'Gem::MissingSpecError' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/3.0.0/rubygems/specification.rb:1402 - Gem::MissingSpecError
Exception 'Gem::MissingSpecError' at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/3.0.0/rubygems/core_ext/kernel_require.rb:1402 - Gem::MissingSpecError
Exception 'Gem::MissingSpecError' at /internal:/Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/3.0.0/rubygems/core_ext/kernel_require.rb:162 - Gem::MissingSpecError
Exception 'Gem::MissingSpecError' at /internal:/Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/3.0.0/rubygems/core_ext/kernel_require.rb:162 - Gem::MissingSpecError
Exception 'Gem::MissingSpecError' at /internal:/Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/3.0.0/rubygems/command_manager.rb:225 - uninitialized constant Gem::Commands::InstallCommand
Did you mean? Gem::InstallUpdateOptions
ERROR: Loading command: install (Gem::MissingSpecError)

with add RUBYOPT=-v and version is 3.1.0

#3 - 06/24/2022 03:31 AM - Gloomy_meng (Gloomy Meng)
bundle-env's ruby is new installed, not my local version

#4 - 06/27/2022 02:31 AM - alanwu (Alan Wu)
- Status changed from Feedback to Open

I had some issues building OpenSSL and the Ruby wrapper, but I was able to reproduce this problem.
RubyGems sets an autoload for OpenSSL and then immediately triggers it with a defined?:

```ruby
# from lib/rubygems/openssl.rb
autoload :OpenSSL, "openssl"
```

This exposes a behavior particular to the Ruby build configuration. It seems that defined?(AutoLoadConstant) returns nil as opposed to loading the file in other build configurations:

```bash
$ ruby --disable-all -ve 'autoload(:Ripper, "ripper"); p defined?(Ripper)'
ruby 3.2.0dev (2022-06-26T13:24:22Z static-ext-load-rel 49d5921550) [x86_64-darwin21]
nil
$ chruby 3.1.2
$ ruby --disable-all -ve 'autoload(:Ripper, "ripper"); p defined?(Ripper)'
ruby 3.1.2p20 (2022-04-12 revision 4491bb740a) [x86_64-darwin20] "constant"
```

I haven't investigated any deeper than this.

As a workaround, you can try applying the following patch against 3.1.2; I'm able to run gem install rubygems-update with it.

```diff
--- a/lib/rubygems/openssl.rb
+++ b/lib/rubygems/openssl.rb
@@ -1,6 +1,6 @@
    # frozen_string_literal: true
    -autoload :OpenSSL, "openssl"
    +require "openssl"
    module Gem

 HAVE_OPENSSL = defined? OpenSSL::SSL # :nodoc:
```
```
[10:57:34] ruby-3.1.2 cd workbench/ruby-3.1.2 && /usr/bin/make -j 7
[11:00:44] ruby-3.1.2 cd workbench/ruby-3.1.2 && /usr/bin/make install
[11:01:11] [bundle-env] Installing
ruby 3.1.2p20 (2022-04-12 revision 4491bb740a) [x86_64-darwin21]
Exception `LoadError'
  at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems.rb:1323 - cannot load such file -- rubygems/default/operating_system
Exception `LoadError'
  at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems.rb:1339 - cannot load such file -- rubygems/default/ruby
Exception `NameError'
  at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/psych/class_loader.rb:70 - uninitialized constant BigDecimal
Exception `Gem::Exception'
  at /Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/request.rb:47 - Open SSL is not available. Install OpenSSL and rebuild Ruby (preferred) or use non-HTTPS sources
```


here is note in https://github.com/CocoaPods/CocoaPods-app/blob/master/Rakefile in line 423

```ruby
# Seems to be a OpenSSL bug in the pkg-config, as libz is required when
# linking libssl, otherwise Ruby's openssl ext will fail to configure.
# So add it ourselves.

and [11:01:21] [rubygems-update-3.3.15] Patching: destroot/bundle/bin/gem is replace `'' by #!/usr/bin/env ruby.

here is note in https://github.com/CocoaPods/CocoaPods-app/blob/master/Rakefile in line 566

Fix shebang of `gem` bin to use bundled Ruby.

#6 - 06/27/2022 03:25 AM - Gloomy_meng (Gloomy Meng)
and [11:01:21] [rubygems-update-3.3.15] Patching: destroot/bundle/bin/gem is replace `'' by #!/usr/bin/env ruby.

#7 - 06/27/2022 03:36 AM - alanwu (Alan Wu)
Try the patch I posted:

```
/Users/didi/Documents/CocoaPods-app/destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/openssl.rb
```

After update_rubygems. The update probably reverts the patch against the bundled version.
You can check the contents of that file to make sure it's patched.

#8 - 06/27/2022 06:59 AM - Gloomy_meng (Gloomy Meng)
i install cocoapods succeed, tks.
so i only need update openssl.rb file in destroot/bundle/lib/ruby/site_ruby/3.1.0/rubygems/ when finished update_rubygems

#9 - 06/28/2022 12:17 AM - hsbt (Hiroshi SHIBATA)
- Status changed from Open to Closed

Files

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<thead>
<tr>
<th>File</th>
<th>Size</th>
<th>Date</th>
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<td>bundle-env</td>
<td>852</td>
<td>06/23/2022</td>
<td>Gloomy_meng (Gloomy Meng)</td>
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<td>mkfile.log</td>
<td>215</td>
<td>06/23/2022</td>
<td>Gloomy_meng (Gloomy Meng)</td>
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