Redmine - Defect #31387

Don't rescue Exception class

2019-05-17 20:51 - Pavel Rosický

Status:	Closed	**Start date:**	
Priority:	Normal	**Due date:**	
Assignee:	Go MAEDA	**% Done:**	0%
Category:	Code cleanup/refactoring	**Estimated time:**	0.00 hour
Target version:	4.1.0		
Resolution:	Fixed	**Affected version:**	

Description

https://stackoverflow.com/questions/10048173/why-is-it-bad-style-to-rescue-exception-e-in-ruby

https://thoughtbot.com/blog/rescue-standarderror-not-exception

```
Exception is the root of Ruby's exception hierarchy, so when you rescue Exception you rescue from
everything, including subclasses such as SyntaxError, LoadError, and Interrupt.

Rescuing Interrupt prevents the user from using CTRL-C to exit the program.
```

I've seen a recent addition to redmine

```
def destroy
  IssueStatus.find(params[:id]).destroy
  redirect_to issue_statuses_path
rescue Exception => e
  flash[:error] = l(:error_unable_delete_issue_status, ERB::Util.h(e.message))
  redirect_to issue_statuses_path
end
```

https://github.com/redmine/redmine/blob/aed2d197a0e897e8a83013384b95353e110bd2f8/app/controllers/issue_statuses_controller.rb#L77

please replace these "safe" exceptions. StandardError is usually more than sufficient.

Related issues:

Related to Redmine - Feature #31361: Include a reason in the error message wh...	**Closed**
Related to Redmine - Patch #29441: Remove code related to JRuby and unsupport...	**Closed**

Associated revisions

Revision 18187 - 2019-05-22 01:53 - Go MAEDA

Custom Exception classes should inherit StandardError instead of Exception (#31387).

Patch by Go MAEDA.

Revision 18197 - 2019-05-25 08:50 - Go MAEDA

Don't rescue Exception class (#31387).

Patch by Go MAEDA and Pavel Rosický.

History

#1 - 2019-05-18 06:55 - Go MAEDA

Thank you for pointing it out.

Maybe we should also check the following lines, shouldn't we?

```
$ egrep -rn 'rescue\s+Exception' app config lib extra
app/models/mailer.rb:705:    rescue Exception => e
```

```
app/models/repository/git.rb:87:  rescue Exception => e
app/models/repository.rb:385:    rescue Exception => e
app/models/repository.rb:395:    rescue Exception => e
app/models/repository.rb:405:    rescue Exception => e
app/models/mail_handler.rb:56:  rescue Exception => e
app/models/import.rb:58:      rescue Exception => e
app/models/import.rb:262:      rescue Exception => e
app/controllers/auth_sources_controller.rb:63:    rescue Exception => e
app/controllers/admin_controller.rb:57:      rescue Exception => e
app/controllers/admin_controller.rb:68:    rescue Exception => e
config/routes.rb:358:      rescue Exception => e
lib/redmine/plugin.rb:421:        rescue Exception => e
lib/redmine/plugin.rb:432:        rescue Exception => e
lib/redmine/plugin.rb:443:        rescue Exception => e
lib/redmine/scm/adapters/mercurial_adapter.rb:95:        rescue Exception => e
lib/redmine/scm/adapters/subversion_adapter.rb:118:            rescue Exception => e
lib/redmine/scm/adapters/abstract_adapter.rb:254:          rescue Exception => e
lib/redmine/scm/adapters/abstract_adapter.rb:285:          rescue Exception => err
lib/tasks/email.rake:167:      rescue Exception => e
lib/tasks/migrate_from_trac.rake:617:      rescue Exception => e
lib/tasks/migrate_from_trac.rake:632:      rescue Exception => e
lib/tasks/locales.rake:171:        rescue Exception => e1
lib/tasks/locales.rake:176:    rescue Exception => e
extra/svn/reposman.rb:57:  rescue Exception => e
extra/mail_handler/rdm-mailhandler.rb:207:    rescue Exception => e
```

#2 - 2019-05-20 12:01 - Go MAEDA

- Related to Feature #31361: Include a reason in the error message when an issue status cannot be deleted added

#3 - 2019-05-20 13:46 - Go MAEDA

- File 0001-Custom-Exception-classes-should-inherit-StandardErro.patch added

- File 0002-Don-t-rescue-Exception.patch added

- Category set to Code cleanup/refactoring

- Target version set to Candidate for next minor release

Here are patches to fix not to raise/rescue Exception. I hope someone to review these patches.

#4 - 2019-05-20 14:09 - Pavel Rosický

thanks, there's a typo in config/routes.rb

it should be rescue SyntaxError, StandardError => e

#5 - 2019-05-20 14:26 - Go MAEDA

- File 0002-Don-t-rescue-Exception.patch added

Pavel Rosický wrote:

> it should be rescue SyntaxError, StandardError => e

Thanks, updated the patch. Could you tell me why it caches SyntaxError? To detect syntax error in plugins' routes.rb?

#6 - 2019-05-20 14:26 - Go MAEDA

- File deleted (0002-Don-t-rescue-Exception.patch)

#7 - 2019-05-20 14:59 - Pavel Rosický

exceptions have a hierarchy

```
Exception
 NoMemoryError
 ScriptError
   LoadError
   NotImplementedError
   SyntaxError
 SignalException
```

```
   Interrupt
 StandardError
   ArgumentError
   IOError
     EOFError
   IndexError
   LocalJumpError
   NameError
     NoMethodError
   RangeError
     FloatDomainError
   RegexpError
   RuntimeError
   SecurityError
   SystemCallError
   SystemStackError
   ThreadError
   TypeError
   ZeroDivisionError
 SystemExit
```

as you can see SyntaxError doesn't inherit from StandardError. It's a common mistake and the original intention was to show a better message that there's an error in a plugin instead of a long and confusing backtrace that Ruby would usually print.

#8 - 2019-05-21 05:33 - Go MAEDA

- Target version changed from Candidate for next minor release to 4.1.0

Setting the target version to 4.1.0.

#9 - 2019-05-21 16:41 - Go MAEDA

- Assignee set to Go MAEDA

#10 - 2019-05-22 09:59 - Go MAEDA

Pavel Rosický wrote:

> as you can see SyntaxError doesn't inherit from StandardError. It's a common mistake and the original intention was to show a better message that there's an error in a plugin instead of a long and confusing backtrace that Ruby would usually print.

You are right.

With catching SyntaxError:

```
An error occurred while loading the routes definition of redmine_message_customize plugin (/Users/maeda/redmines/redmine-trunk/plugins/redmine_message_customize/config/routes.rb): (eval):7: syntax error, unexpected end-of-input, expecting '}'.
```

Without catching SyntaxError:

ShowHide

```
Traceback (most recent call last):
    47: from bin/rails:4:in `<main>'
    46: from bin/rails:4:in `require'
    45: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/commands.rb:18:in `<top (required)>'
    44: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/command.rb:46:in `invoke'
    43: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/command/base.rb:65:in `perform'
    42: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/thor-0.20.3/lib/thor.rb:387:in `dispatch'
    41: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/thor-0.20.3/lib/thor/invocation.rb:126:in `invoke_command'
    40: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/thor-0.20.3/lib/thor/command.rb:27:in `run'
    39: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/commands/console/console_command.rb:95:in `perform'
    38: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/command/actions.rb:15:in `require_application_and_environment!'
    37: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/command/actions.rb:28:in `require_environment!'
    36: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/application.rb:337:in `require_environment!'
    35: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/application.rb:337:in `requir
e'
    34: from /Users/maeda/redmines/redmine-trunk/config/environment.rb:16:in `<top (required)>'
    33: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/application.rb:361:in `initia
lize!'
    32: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/initializable.rb:60:in `run_i
nitializers'
    31: from /Users/maeda/.rbenv/versions/2.6.1/lib/ruby/2.6.0/tsort.rb:205:in `tsort_each'
    30: from /Users/maeda/.rbenv/versions/2.6.1/lib/ruby/2.6.0/tsort.rb:226:in `tsort_each'
    29: from /Users/maeda/.rbenv/versions/2.6.1/lib/ruby/2.6.0/tsort.rb:347:in `each_strongly_connected_compon
ent'
    28: from /Users/maeda/.rbenv/versions/2.6.1/lib/ruby/2.6.0/tsort.rb:347:in `call'
    27: from /Users/maeda/.rbenv/versions/2.6.1/lib/ruby/2.6.0/tsort.rb:347:in `each'
    26: from /Users/maeda/.rbenv/versions/2.6.1/lib/ruby/2.6.0/tsort.rb:349:in `block in each_strongly_connect
ed_component'
    25: from /Users/maeda/.rbenv/versions/2.6.1/lib/ruby/2.6.0/tsort.rb:431:in `each_strongly_connected_compon
ent_from'
    24: from /Users/maeda/.rbenv/versions/2.6.1/lib/ruby/2.6.0/tsort.rb:350:in `block (2 levels) in each_stron
gly_connected_component'
    23: from /Users/maeda/.rbenv/versions/2.6.1/lib/ruby/2.6.0/tsort.rb:228:in `block in tsort_each'
    22: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/initializable.rb:61:in `block
 in run_initializers'
    21: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/initializable.rb:32:in `run'
    20: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/initializable.rb:32:in `insta
nce_exec'
    19: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/application/finisher.rb:130:i
n `block in <module:Finisher>'
    18: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/application/routes_reloader.r
b:10:in `execute'
    17: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/activesupport-5.2.3/lib/active_support/file_update_che
cker.rb:83:in `execute'
    16: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/application/routes_reloader.r
b:30:in `block in updater'
    15: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/application/routes_reloader.r
b:20:in `reload!'
    14: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/application/routes_reloader.r
b:41:in `load_paths'
    13: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/application/routes_reloader.r
b:41:in `each'
    12: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/railties-5.2.3/lib/rails/application/routes_reloader.r
b:41:in `block in load_paths'
    11: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/activesupport-5.2.3/lib/active_support/dependencies.rb
:285:in `load'
    10: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/activesupport-5.2.3/lib/active_support/dependencies.rb
:257:in `load_dependency'
     9: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/activesupport-5.2.3/lib/active_support/dependencies.rb
:285:in `block in load'
     8: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/activesupport-5.2.3/lib/active_support/dependencies.rb
:285:in `load'
     7: from /Users/maeda/redmines/redmine-trunk/config/routes.rb:20:in `<top (required)>'
     6: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/actionpack-5.2.3/lib/action_dispatch/routing/route_set
.rb:414:in `draw'
     5: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/actionpack-5.2.3/lib/action_dispatch/routing/route_set
.rb:432:in `eval_block'
     4: from /Users/maeda/redmines/gems/ruby/2.6.0/gems/actionpack-5.2.3/lib/action_dispatch/routing/route_set
.rb:432:in `instance_exec'
     3: from /Users/maeda/redmines/redmine-trunk/config/routes.rb:355:in `block in <top (required)>'
     2: from /Users/maeda/redmines/redmine-trunk/config/routes.rb:355:in `glob'
     1: from /Users/maeda/redmines/redmine-trunk/config/routes.rb:359:in `block (2 levels) in <top (required)>
'
/Users/maeda/redmines/redmine-trunk/config/routes.rb:359:in `instance_eval': (eval):7: syntax error, unexpecte
d end-of-input, expecting '}' (SyntaxError)
```

#11 - 2019-05-25 03:05 - Go MAEDA

According to r6230, it seems that we have to catch Exception in lib/redmine/scm/adapters/abstract_adapter.rb unless we drop the support for JRuby.

```
Index: lib/redmine/scm/adapters/abstract_adapter.rb
===================================================================
--- lib/redmine/scm/adapters/abstract_adapter.rb    (□□□□□ 6229)
+++ lib/redmine/scm/adapters/abstract_adapter.rb    (□□□□□ 6230)
@@ -224,7 +224,11 @@
               io.close_write
               block.call(io) if block_given?
             end
-          rescue Errno::ENOENT => e
+          ## If scm command does not exist,
+          ## Linux JRuby 1.6.2 (ruby-1.8.7-p330) raises java.io.IOException
+          ## in production environment.
+          # rescue Errno::ENOENT => e
+          rescue Exception => e
             msg = strip_credential(e.message)
             # The command failed, log it and re-raise
             logmsg = "SCM command failed, "
```

#12 - 2019-05-25 03:08 - Go MAEDA

- Related to Patch #29441: Remove code related to JRuby and unsupported Ruby versions added

#13 - 2019-05-25 07:42 - Pavel Rosický

This was a fix for a very, very old jruby version. It should match MRI's behaviour now.

#14 - 2019-05-25 08:53 - Go MAEDA

- Subject changed from don't rescue Exception to Don't rescue Exception class

- Status changed from New to Closed

- Resolution set to Fixed

Committed the patch.

Pavel Rosický wrote:

> This was a fix for a very, very old jruby version. It should match MRI's behaviour now.

Thank you for the advice. I committed the following code.

```
Index: lib/redmine/scm/adapters/abstract_adapter.rb
===================================================================
--- lib/redmine/scm/adapters/abstract_adapter.rb    (□□□□□ 18196)
+++ lib/redmine/scm/adapters/abstract_adapter.rb    (□□□□□ 18197)
@@ -247,11 +247,7 @@
               io.close_write unless options[:write_stdin]
               block.call(io) if block_given?
             end
-          ## If scm command does not exist,
-          ## Linux JRuby 1.6.2 (ruby-1.8.7-p330) raises java.io.IOException
-          ## in production environment.
-          # rescue Errno::ENOENT => e
-          rescue Exception => e
+          rescue => e
             msg = strip_credential(e.message)
             # The command failed, log it and re-raise
             logmsg = "SCM command failed, "
```

Files

0001-Custom-Exception-classes-should-inherit-StandardErro.patch	3.78 KB	2019-05-20	Go MAEDA
0002-Don-t-rescue-Exception.patch	19.3 KB	2019-05-20	Go MAEDA