**Redmine - Defect #38155**

**RuntimeError when reloading Rails console**

2023-01-05 18:24 - Thomas Löber

<table>
<thead>
<tr>
<th>Status:</th>
<th>Closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority:</td>
<td>Normal</td>
</tr>
<tr>
<td>Assignee:</td>
<td>Go MAEDA</td>
</tr>
<tr>
<td>Category:</td>
<td>Rails support</td>
</tr>
<tr>
<td>Target version:</td>
<td>6.0.0</td>
</tr>
<tr>
<td>Resolution:</td>
<td>Fixed</td>
</tr>
<tr>
<td>Start date:</td>
<td></td>
</tr>
<tr>
<td>Due date:</td>
<td></td>
</tr>
<tr>
<td>% Done:</td>
<td>0%</td>
</tr>
<tr>
<td>Estimated time:</td>
<td>0.00 hour</td>
</tr>
<tr>
<td>Affected version:</td>
<td></td>
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**Description**

Hi!

When I start a Rails console in *development* and at some point run a reload! to reload changes I have just made to the source code, I get a RuntimeError:

```bash
> rails console
Loading development environment (Rails 6.1.7)
irb(main):001:0> reload!
Reloading...
Traceback (most recent call last):
  7:   from config/initializers/30-redmine.rb:11:in `block in <top (required)>'
  6:   from lib/redmine/preparation.rb:163:in `prepare'
  5:   from lib/redmine/menu_manager.rb:251:in `map'
  4:   from lib/redmine/preparation.rb:164:in `block in prepare'
  3:   from lib/redmine/menu_manager.rb:321:in `push'
  2:   from lib/redmine/menu_manager.rb:403:in `add'
  1:   from lib/redmine/menu_manager.rb:386:in `add_at'
RuntimeError (Child already added)
```

The source of the error is Redmine::Preparation.prepare, which is called in this `to_prepare` block in config/initializers/30-redmine.rb:

```ruby
Rails.application.config.to_prepare do
  I18n.backend = Redmine::I18n::Backend.new
  # Forces I18n to load available locales from the backend
  I18n.config.available_locales = nil
  Redmine::Preparation.prepare
end
```

The reason for the error is that Rails.application.reloader.reload! correctly runs the prepare callbacks twice, but Redmine::Preparation.prepare does not support being called multiple times.

From [https://github.com/rails/rails/pull/28111#issuecomment-285370954](https://github.com/rails/rails/pull/28111#issuecomment-285370954):

> We already call prepare a thoroughly variable number of times -- if your prepare handler isn't idempotent, you're going to have a bad time.

So I changed the classes used in Redmine::Preparation to be idempotent. Please see the attached patch.

Now reloading works:

```bash
Reloading...
=> true
```

Best regards,

Thomas

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**Associated revisions**

2024-05-25
Revision 22681 - 2024-02-05 14:39 - Go MAEDA
Fix RuntimeError on `reload!` in the Rails console (#38155).

Patch by Thomas Löber (@tloeber).

Revision 22683 - 2024-02-07 01:59 - Go MAEDA
Fix RuboCop offense Layout/EmptyLineAfterGuardClause (#38155).

History
#1 - 2023-01-06 00:24 - Go MAEDA
- Tracker changed from Patch to Defect
- Status changed from New to Confirmed

#2 - 2023-01-24 11:43 - Mischa The Evil
I've had a quick look at the attached patch file (didn't test it though). It seems to also change/break some features too, namely:

- Feature #14008 (Add a warning if 2 plugins have the same settings partial name);
- Protection against registering multiple wiki formatters with the same name.

This should be tested carefully before it is being committed.

#3 - 2023-01-24 14:25 - Thomas Löber
- File Make_Redmine_preparation_idempotent_v2.patch added

You are absolutely right. I have added an updated patch. (I am not allowed to delete the first patch, though.)

#4 - 2023-12-28 03:35 - Go MAEDA
- Target version set to 6.0.0

Setting the target version to 6.0.0.

#5 - 2024-02-05 14:40 - Go MAEDA
- Subject changed from Redmine 5: RuntimeError when reloading Rails console to RuntimeError when reloading Rails console
- Category set to Rails support
- Status changed from Confirmed to Closed
- Assignee set to Go MAEDA
- Resolution set to Fixed

Committed the patch in r22681. Thank you.

Files
<table>
<thead>
<tr>
<th>File Name</th>
<th>Size</th>
<th>Date</th>
<th>Author</th>
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<tbody>
<tr>
<td>Make_Redmine_preparation_idempotent.patch</td>
<td>2.78 KB</td>
<td>2023-01-05</td>
<td>Thomas Löber</td>
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<tr>
<td>Make_Redmine_preparation_idempotent_v2.patch</td>
<td>2.9 KB</td>
<td>2023-01-24</td>
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