

## Redmine - Feature #24013

### Firebird and RedDatabase support

2016-10-06 23:35 - Andrey Lobanov (RedSoft)

<b>Status:</b>	New	<b>Start date:</b>	
<b>Priority:</b>	Low	<b>Due date:</b>	
<b>Assignee:</b>		<b>% Done:</b>	0%
<b>Category:</b>	Database	<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>			
<b>Resolution:</b>			
<b>Description</b>			
I made a patch that adds support for firebird and RedDatabase(based on firebird). Biggest problem that occurs when trying to run redmine with activerecord-fb-adapter that redmine uses in string constants firebird keywords.			

#### Associated revisions

##### Revision 16008 - 2016-11-28 06:54 - Toshi MARUYAMA

use symbol instead of string for 'position' (#24013)

##### Revision 16009 - 2016-11-28 07:21 - Toshi MARUYAMA

use symbol instead of string for 'position' in db migrate (#24013)

#### History

##### #1 - 2016-10-07 05:58 - Toshi MARUYAMA

It is too hard to see difference in patch.  
Could you split patch to two patches?

1. only indent and white space change
2. main change

##### #2 - 2016-10-07 09:25 - Andrey Lobanov (RedSoft)

- File *Fb\_Support\_clear.patch* added

Here is clear patch. These small changes allows redmine work with firebird.

##### #3 - 2016-10-08 05:57 - Toshi MARUYAMA

Did you run tests and confirm other databases do not break tests?

<http://www.redmine.org/builds/index.html>

##### #4 - 2016-10-08 12:22 - Andrey Lobanov (RedSoft)

I'm sorry few tests failed. So i'll fix it and upload only fully working patch.

##### #5 - 2016-10-09 16:27 - Andrey Lobanov (RedSoft)

- File *firebird\_support\_v2.patch* added

New version of patch. Other dbs tests working.

##### #6 - 2016-10-09 19:34 - Toshi MARUYAMA

From blog written in Japanese:

<http://qiita.com/inchito/items/630b9f038c87298b5756>

<https://github.com/rails/rails/issues/16978#issuecomment-56211310>

First thing, arel\_table is private API of Rails and should not be used in applications.

<http://bikeshed.fm/74#comment-2830227073>

In this podcast I heard Arel is going to be a public API in Rails 5.1, correct? Does that mean Rails developers will be allowed to use it in applications?

I got an answer from Sean:

Yes, it will be stable after 5.1

<https://twitter.com/sgrif/status/763830491204026368>

**#7 - 2016-10-09 19:35 - Toshi MARUYAMA**

- *Tracker changed from Patch to Feature*

- *Priority changed from Normal to Low*

**#8 - 2016-10-09 19:37 - Andrey Lobanov (RedSoft)**

Oh. I'll change arel\_table usage.

**#9 - 2016-10-10 18:11 - Andrey Lobanov (RedSoft)**

- *File Firebird\_support\_v3.patch added*

Fixed arel\_table usage.

**#10 - 2016-10-23 08:44 - Mischa The Evil**

For completeness' sake:

- Upstream ([activerecord-fb-adapter](#)) issue: <https://github.com/rowland/activerecord-fb-adapter/issues/70> (*Problem with db migration*)
- Upstream pull request: <https://github.com/rowland/activerecord-fb-adapter/pull/73> (*Redmine support*)

Note from quick visual patch scan: it seems it is missing adaptations to the Gemfile, the configuration stubs (*config/database.yml.example*) and the documentation (*doc/INSTALL*) reflecting the proposed extension of DB support.

**#11 - 2016-10-25 19:18 - Warren Postma**

Given that Firebird is an extremely limited and feature-poor alternative to MySQL or Postgres, who would want to use Firebird? I say this as a person with 10 years professional Firebird (and Interbase) experience.

Firebird is itself an open source fork of the Borland/Embarcadero Interbase product.

**#12 - 2016-10-31 14:15 - Andrey Lobanov (RedSoft)**

Warren Postma wrote:

Given that Firebird is an extremely limited and feature-poor alternative to MySQL or Postgres, who would want to use Firebird? I say this as a person with 10 years professional Firebird (and Interbase) experience.

Firebird is itself an open source fork of the Borland/Embarcadero Interbase product.

I'm sorry but when Firebird became feature-poor? Did you checked latest version 3.0?

**#13 - 2016-11-28 14:06 - Toshi MARUYAMA**

- *File issue-24103-r16009-misc.diff added*

- *File issue-24103-r16009-keywords.diff added*

- *File issue-24103-r16009-db-migrate.diff added*

These are patches which remained [Firebird\\_support\\_v3.patch](#) after [r16008](#) and [r16009](#). I think [issue-24013-r16009-db-migrate.diff](#) breaks existing system.

**#14 - 2016-11-28 14:14 - Toshi MARUYAMA**

- *File issue-24013-r16009-db-migrate.diff added*

- *File issue-24013-r16009-misc.diff added*

- *File issue-24013-r16009-keywords.diff added*

Fixed issue number of patch files.

**#15 - 2016-11-28 14:14 - Toshi MARUYAMA**

- File deleted (issue-24103-r16009-keywords.diff)

**#16 - 2016-11-28 14:14 - Toshi MARUYAMA**

- File deleted (issue-24103-r16009-misc.diff)

**#17 - 2016-11-28 14:14 - Toshi MARUYAMA**

- File deleted (issue-24103-r16009-db-migrate.diff)

**#18 - 2017-01-12 14:16 - Andrey Lobanov (RedSoft)**

Right now i'm trying to find better solution to support Firebird.  
The biggest problem to make it looks native. Because of large count of hardcoded queries with Firebird's keywords.

**#19 - 2017-01-20 15:53 - Andrey Lobanov (RedSoft)**

Example of queries changes to fit firebird:  
Before:

```
JournalDetail.  
  where(["property = 'attr' AND prop_key = 'assigned_to_id' AND value = ?", id.to_s]).  
  update_all(['value = ?', substitute.id.to_s])
```

After:

```
JournalDetail.  
  where(:property => 'attr', :prop_key => 'assigned_to_id', :value => id.to_s).  
  update_all(:value => substitute.id.to_s)
```

Main problem is subqueries or part of queries(where, select, etc) like this:

```
# Returns a JOIN clause that is added to the query when sorting by custom values  
def join_for_order_statement(custom_field)  
  alias_name = join_alias(custom_field)  
  
  "LEFT OUTER JOIN #{CustomValue.table_name} #{alias_name}" +  
  " ON #{alias_name}.customized_type = '#{custom_field.class.customized_class.base_class.name}'" +  
  " AND #{alias_name}.customized_id = #{custom_field.class.customized_class.table_name}.id" +  
  " AND #{alias_name}.custom_field_id = #{custom_field.id}" +  
  " AND (#{custom_field.visibility_by_project_condition})" +  
  " AND #{alias_name}.value <> ''" +  
  " AND #{alias_name}.id = (SELECT max(#{alias_name}_2.id) FROM #{CustomValue.table_name} #{alias_name}_2" +  
  " WHERE #{alias_name}_2.customized_type = #{alias_name}.customized_type" +  
  " AND #{alias_name}_2.customized_id = #{alias_name}.customized_id" +  
  " AND #{alias_name}_2.custom_field_id = #{alias_name}.custom_field_id)"  
end
```

In this code fragment i can't find good solution to replace

```
#{alias_name}.value
```

Any suggestions? I'll appreciate any help

**#20 - 2017-01-23 14:23 - Andrey Lobanov (RedSoft)**

- File current\_trunk\_Firebird\_and\_RedDatabase\_support.patch added

Here changes to support firebird at actual trunk.

**#21 - 2017-01-23 15:47 - Andrey Lobanov (RedSoft)**

- File current\_trunk\_Decimal\_data\_type\_fix.patch added

Also decimal precision fix

**#22 - 2017-01-23 15:48 - Andrey Lobanov (RedSoft)**

I think i forgot about some migration files. But i'll fix that later.

**#23 - 2017-02-14 13:50 - Andrey Lobanov (RedSoft)**

- File *Symbols\_instead\_of\_strings\_to\_support\_firebird\_keywords.patch* added

Here some fixes to use symbols instead of strings.

**#24 - 2017-02-14 13:54 - Andrey Lobanov (RedSoft)**

- File *Value\_keyword\_replaced\_with\_symbols\_in\_application\_controller.patch* added

Value keyword replaced in application\_controller

**#25 - 2019-10-18 02:31 - Lucas Schatz**

Any news about this patch? is it stable? integrated?  
It would be nice to use Firebird with Redmine too :)  
Thanks!

**#26 - 2022-05-20 16:17 - Tim Crawford**

Warren Postma wrote:

Given that Firebird is an extremely limited and feature-poor alternative to MySQL or Postgres, who would want to use Firebird? I say this as a person with 10 years professional Firebird (and Interbase) experience.

Firebird is itself an open source fork of the Borland/Embarcadero Interbase product.

Just saw this. What?

Firebird is far better than MySQL, especially for small systems.

MySQL download alone is over 600 MB and takes about 30 minutes minimum to install

Firebird is 15 MB and can be installed in under 5 minutes

I says this as a person who worked for Oracle for 17 years,  
and 7 years working with MySQL and Firebird

**Files**

Basic_Fb_support.patch	41.8 KB	2016-10-06	Andrey Lobanov (RedSoft)
Fb_Support_clear.patch	31 KB	2016-10-07	Andrey Lobanov (RedSoft)
firebird_support_v2.patch	41.2 KB	2016-10-09	Andrey Lobanov (RedSoft)
Firebird_support_v3.patch	40.6 KB	2016-10-10	Andrey Lobanov (RedSoft)
issue-24013-r16009-misc.diff	18.3 KB	2016-11-28	Toshi MARUYAMA
issue-24013-r16009-db-migrate.diff	3.61 KB	2016-11-28	Toshi MARUYAMA
issue-24013-r16009-keywords.diff	10.7 KB	2016-11-28	Toshi MARUYAMA
current_trunk_Firebird_and_RedDatabase_support.patch	27.7 KB	2017-01-23	Andrey Lobanov (RedSoft)
current_trunk_Decimal_data_type_fix.patch	4.76 KB	2017-01-23	Andrey Lobanov (RedSoft)
Symbols_instead_of_strings_to_support_firebird_keywords.patch	5.95 KB	2017-02-14	Andrey Lobanov (RedSoft)
Value_keyword_replaced_with_symbols_in_application_controller.patch	9.15 Bytes	2017-02-14	Andrey Lobanov (RedSoft)