

Redmine - Patch #41954

Update extract_fixtures task with configurable output directory

2024-12-09 09:44 - Ko Nagase

Status:	New	Start date:	
Priority:	Normal	Due date:	
Assignee:		% Done:	0%
Category:	Code cleanup/refactoring	Estimated time:	0.00 hour
Target version:	6.0.5		

Description

I noticed that running extract_fixtures rake task failed with the following error.

```
% bundle exec rake extract_fixtures
rake aborted!
NoMethodError: undefined method `type_cast' for an instance of ActiveRecord::ConnectionAdapters::PostgreSQL::Column (NoMethodError)
```

```
      record[col.name] = col.type_cast(record[col.name]) if record[col.name]
      ^^^^^^^^^^^
```

Attached 1st patch (0001-Update-extract_fixtures-task-with-configurable-dir.patch) solves above issue with configurable output directory by DIR argument (environment variable, default ./tmp/fixtures), so reviewing it is helpful.

```
--- a/lib/tasks/extract_fixtures.rake
+++ b/lib/tasks/extract_fixtures.rake
@@ -19,17 +19,20 @@ desc 'Create YAML test fixtures from data in an existing database.
 Defaults to development database. Set RAILS_ENV to override.'

task :extract_fixtures => :environment do
+  dir = ENV['DIR'] || './tmp/fixtures'
+  FileUtils.mkdir_p(dir)
+
  sql = "SELECT * FROM %s"
-  skip_tables = ["schema_info"]
+  skip_tables = ["schema_migrations", "ar_internal_metadata"]
  ActiveRecord::Base.establish_connection
  (ActiveRecord::Base.connection.tables - skip_tables).each do |table_name|
    i = "000"
-   File.open("#{Rails.root}/#{table_name}.yaml", 'w' ) do |file|
+   File.open(File.join(dir, "#{table_name}.yaml"), 'w') do |file|
      data = ActiveRecord::Base.connection.select_all(sql % table_name)
      file.write data.inject({}) { |hash, record|
        # cast extracted values
        ActiveRecord::Base.connection.columns(table_name).each { |col|
-         record[col.name] = col.type_cast(record[col.name]) if record[col.name]
+         record[col.name] = ActiveRecord::Type.lookup(col.type).deserialize(record[col.name]) if
        record[col.name]
      }
      hash["#{table_name}_#{i.succ!}"] = record
      hash
    end
  end
end
```

I tested mysql2, postgresql and sqlite3 adapters with attached test_extract_fixture.sh file on my local M1 Mac + Ruby 3.3.6 environment.

```
bash test_extract_fixture.sh mysql2
bash test_extract_fixture.sh postgresql
bash test_extract_fixture.sh sqlite3
```

Attached 2nd to 5th patches are for sort stability (2nd) and time offset/format things (3rd to 5th) and these are optional.

History

#1 - 2024-12-13 09:54 - Ko Nagase

- File 0006-Support-configurable-skip-tables.patch added
- File 0007-Support-table-filters.patch added
- File 0008-Use-record-id-for-fixture-key-id-if-exists.patch added

Attached patches (6th to 8th) are also optional.

Full option example:

```
bundle exec rake extract_fixtures \  
  DIR=./tmp/fixtures \  
  TIME_OFFSET=+09:00 \  
  SKIP_TABLES=import_items,imports \  
  TABLE_FILTERS="issues:id IN (1,2);projects:id IN (1,2) "
```

Restore example:

```
bundle exec rake db:drop && bundle exec rake db:create && bundle exec rake db:migrate  
bundle exec rake db:fixtures:load FIXTURES_PATH=./tmp/fixtures
```

#2 - 2024-12-27 08:52 - Go MAEDA

- Target version set to Candidate for next major release

#3 - 2025-02-13 12:08 - Go MAEDA

- Target version changed from Candidate for next major release to 6.0.4

Setting the target version to 6.0.4.

#4 - 2025-02-17 14:46 - Ko Nagase

Sorry, I noticed that the 1st main fix patch seems to have a bug in binary data serialization (especially in sqlite3+docker environment).

<https://github.com/sanak/redmine-storybook/pull/3/files#diff-e4ce7c298a84bf5e310db65d0682beb599851b37ba5995799ad4522713851834>

I will take a look at it in this weekend.

#5 - 2025-03-02 08:39 - Go MAEDA

- Target version changed from 6.0.4 to 6.0.5

#6 - 2025-03-30 12:14 - Ko Nagase

- File 0009-Support-configurable-tables.patch added
- File 0010-Support-omit-default-or-nil-value.patch added
- File 0011-Skip-empty-table.patch added
- File 0012-Convert-wiki_content_versions-data-binary-to-utf-8.patch added

Ko Nagase wrote in [#note-4](#):

Sorry, I noticed that the 1st main fix patch seems to have a bug in binary data serialization (especially in sqlite3+docker environment).

<https://github.com/sanak/redmine-storybook/pull/3/files#diff-e4ce7c298a84bf5e310db65d0682beb599851b37ba5995799ad4522713851834>

I will take a look at it in this weekend.

The cause of binary data serialization issue seems to depend on whether the data includes multibyte string like Japanese, and additional Base64 (ASCII-8BIT) to UTF-8 encode conversion solved the issue, so 1st core patch itself should not be problem, I think.

<https://github.com/sanak/redmine-storybook/pull/3/commits/72e55372e5ef49f5d36077cd85b5d4c8104eaa08>

I upload the encode conversion diff as 12th patch with additional 9-11th patches.

(The total diff can be seen at here (<https://github.com/sanak/redmine/pull/28>) .)

Files

0001-Update-extract_fixtures-task-with-configurable-dir.patch	1.64 KB	2024-12-09	Ko Nagase
test_extract_fixture.sh	620 Bytes	2024-12-09	Ko Nagase
0002-Sort-records-for-stability.patch	1.64 KB	2024-12-09	Ko Nagase
0003-Use-UTC-time-for-datetime-column-value.patch	1.26 KB	2024-12-09	Ko Nagase
0004-Support-time-offset-for-datetime-column-value.patch	1.58 KB	2024-12-09	Ko Nagase
0005-Override-Psych-yaml-format_time-method.patch	1.17 KB	2024-12-09	Ko Nagase
test_extract_fixture_with_time_offset.sh	729 Bytes	2024-12-09	Ko Nagase
0006-Support-configurable-skip-tables.patch	1.14 KB	2024-12-13	Ko Nagase
0007-Support-table-filters.patch	1.51 KB	2024-12-13	Ko Nagase
0008-Use-record-id-for-fixture-key-id-if-exists.patch	1.49 KB	2024-12-13	Ko Nagase
0009-Support-configurable-tables.patch	1.33 KB	2025-03-30	Ko Nagase
0010-Support-omit-default-or-nil-value.patch	1.88 KB	2025-03-30	Ko Nagase
0011-Skip-empty-table.patch	1.91 KB	2025-03-30	Ko Nagase
0012-Convert-wiki_content_versions-data-binary-to-utf-8.patch	931 Bytes	2025-03-30	Ko Nagase