**Arvados - Story #11908**

**Migrate Collections.properties to JSONB**

06/27/2017 06:55 PM - Tom Morris

<table>
<thead>
<tr>
<th>Status:</th>
<th>Resolved</th>
<th>Start date:</th>
<th>06/27/2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority:</td>
<td>Normal</td>
<td>Due date:</td>
<td></td>
</tr>
<tr>
<td>Assigned To:</td>
<td>Tom Clegg</td>
<td>% Done:</td>
<td>100%</td>
</tr>
<tr>
<td>Category:</td>
<td>API</td>
<td>Estimated time:</td>
<td>0.00 hour</td>
</tr>
<tr>
<td>Target version:</td>
<td>2017-12-20 Sprint</td>
<td></td>
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</table>

**Description**

Handle (deserialize) both YAML and JSON and convert column type to JSONB

**Subtasks:**

- Task # 11933: Review 11908-properties-column-json (Resolved)

**Related issues:**

- Related to Arvados - Story #11884: Convert Collection properties column type ... (Duplicate)
- Blocked by Arvados - Story #11807: [API] Migrate old serialized database cont... (Resolved 06/05/2017)
- Blocks Arvados - Story #4019: [API] Support query of "properties" field on ob... (Resolved 12/12/2017)

**Associated revisions**

Revision 8f987a92 - 12/08/2017 06:49 PM - Tom Clegg

Merge branch '11908-properties-column-json'

refs #11908

Arvados-DCO-1.1-Signed-off-by: Tom Clegg <tclegg@veritasgenetics.com>

**History**

#1 - 06/27/2017 07:04 PM - Tom Morris
- Description updated
- Target version set to Arvados Future Sprints
- Story points set to 2.0

#2 - 07/05/2017 06:32 PM - Tom Morris
- Target version changed from Arvados Future Sprints to 2017-07-19 sprint

#3 - 07/05/2017 07:21 PM - Tom Morris
- Assigned To set to Tom Clegg

#4 - 07/06/2017 09:33 PM - Tom Clegg
- Status changed from New to In Progress

Changing the column type in-place is trivial ("alter table foo alter column bar type jsonb using bar::jsonb"). Unfortunately, the fulltext index includes the old column so it gets dropped in the process, and has to be rebuilt.

The good news is that I ran into the fulltext index migration bug (existing index not detected, migration fails) and fixed it.

ActiveRecord::StatementInvalid:  PG::DuplicateTable:  ERROR:  relation "collections_full_text_search_idx" already exists

11908-properties-column-json @ bb821d03eb10ddcc7822faec51a565d1a11082ebc

#5 - 07/07/2017 06:50 PM - Radhika Chippada

- Do we not need to drop the full text index on collection before changing column type back in down migration?
- Do we not want to update workflows -> definition column?
Radhika Chippada wrote:

- Do we not need to drop the full text index on collection before changing column type back in down migration?

On my system the down-migration worked without dropping/recreating the index. I added a comment to the up-migration with the postgresql error it avoids.

- Do we not want to update workflows -> definition column?

Not here/now (this is just collections.properties, to support tags) and perhaps not ever (IIRC we decided to store literal YAML there, instead of using a serialized field, in order to preserve key order, formatting, comments).

11908-properties-column-json @ ebc65675cecd25ca11a86f789bfb23b600875b8

Radhika Chippada:

On my system the down-migration worked without dropping/recreating the index. I added a comment to the up-migration with the postgresql error it avoids.

Down migration worked for me as well. I also switched to master branch after down migration and added tags to a collection and everything worked fine.

LGTM

Tom Clegg:

- Category set to API
- Target version changed from 2017-07-19 sprint to Arvados Future Sprints
- Story points changed from 2.0 to 0.5

Merge is blocked on PostgreSQL 9.4 dependency.

Tom Morris:

- Target version changed from Arvados Future Sprints to 2017-11-08 Sprint

Tom Clegg:

- Target version changed from 2017-11-08 Sprint to 2017-11-22 Sprint

As a reminder, in July #11807 did (what we expect to be) the slowest part of the yaml-to-json migration, i.e., the jobs table, and that took 3.5 minutes on qr1hi.

This branch does a smaller part of the yaml-to-json migration. It also changes the column type of a single column (collections.properties) that is typically null in most rows, and then it has to regenerate the fulltext index. We don't having timing estimates for that yet.

Tom Clegg:

- Target version changed from 2017-11-22 Sprint to 2017-12-06 Sprint

Tom Clegg:

- Target version changed from 2017-12-06 Sprint to 2017-12-20 Sprint

Peter Amstutz:

- Related to deleted (Story #4019: [API] Support query of "properties" field on objects)

Peter Amstutz:

- Blocks Story #4019: [API] Support query of "properties" field on objects added

Tom Clegg:

- Rebased.
#17 - 12/11/2017 09:29 PM - Tom Clegg

- Status changed from In Progress to Resolved