

## TYPO3 Core - Bug #90754

### Database Compare with SQLite can not be finished

2020-03-13 10:02 - Daniel Siepmann

<b>Status:</b> Closed	<b>Start date:</b> 2020-03-13
<b>Priority:</b> Should have	<b>Due date:</b>
<b>Assignee:</b>	<b>% Done:</b> 100%
<b>Category:</b> Database API (Doctrine DBAL)	<b>Estimated time:</b> 0.00 hour
<b>Target version:</b>	<b>Complexity:</b>
<b>TYPO3 Version:</b> 10	<b>Is Regression:</b>
<b>PHP Version:</b> 7.3	<b>Sprint Focus:</b>
<b>Tags:</b>	
<b>Description</b>	
With current master, and since some v10 releases already, I can't finish the database compare using SQLite.	
I've attached a screenshot of the result when executing the compare, together with a file containing the output of the compare beforehand:	
liayn1 8 minutes ago I added a dummy column to the pages table locally and did a compare. it showed me the option to rename the column to zzz_, this worked without errors. Now I see the same suggestion again and additionally the statements to drop the zzz field. So this is some different bug indeed	
<b>Related issues:</b>	
Related to TYPO3 Core - Bug #90758: Renaming of column does work in sqlite wi...	<b>Closed</b> 2020-03-13
Related to TYPO3 Core - Bug #94710: Database Compare "Change fields" with SQL...	<b>Under Review</b> 2021-08-04
Related to TYPO3 Core - Bug #94709: TypeError for SQLite in DB Compare	<b>Closed</b> 2021-08-04
Follows TYPO3 Core - Bug #90751: database compare shows differences for fresh...	<b>Closed</b> 2020-03-12

### Associated revisions

#### Revision decea21a - 2020-03-17 09:14 - Markus Klein

[BUGFIX] Make SQL schema migrations working on SQLite

This patch fixes three things:

- 1) SQLite can handle a primary key, the special handling can be removed. The field names must be quoted though. A lot of duplicate tests can be removed here.
- 2) The handcrafted arrays passed on to the TableDiff class need to be indexed by the column or index name, otherwise the SQLite driver fails to identify them correctly.
- 3) Allow only one column operation per table. Having multiple column adjustments (rename, removal) within one run generates wrong migration SQL. This is due to the possibility of the Install Tool to be able to select on a "per column" level. (Keep in mind that in SQLite one operation needs at least 5 SQL statements, contrary to other DMBS)

Resolves: #90758

Resolves: #90754

Resolves: #90751

Releases: master, 9.5

Change-Id: I972346fae3cc97b877e20033b466345fa1c0a83d

Reviewed-on: <https://review.typo3.org/c/Packages/TYPO3.CMS/+/#63702>

Tested-by: TYPO3com <noreply@typo3.com>

Tested-by: Daniel Siepmann <coding@daniel-siepmann.de>

Tested-by: Georg Ringer <[georg.ringer@gmail.com](mailto:georg.ringer@gmail.com)>  
Tested-by: Benni Mack <[benni@typo3.org](mailto:benni@typo3.org)>  
Reviewed-by: Georg Ringer <[georg.ringer@gmail.com](mailto:georg.ringer@gmail.com)>  
Reviewed-by: Benni Mack <[benni@typo3.org](mailto:benni@typo3.org)>

### Revision b71024c2 - 2020-03-17 09:14 - Markus Klein

[BUGFIX] Make SQL schema migrations working on SQLite

This patch fixes three things:

- 1) SQLite can handle a primary key, the special handling can be removed. The field names must be quoted though. A lot of duplicate tests can be removed here.
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Resolves: #90758  
Resolves: #90754  
Resolves: #90751  
Releases: master, 9.5  
Change-Id: I972346fae3cc97b877e20033b466345fa1c0a83d  
Reviewed-on: <https://review.typo3.org/c/Packages/TYPO3.CMS/+63745>  
Tested-by: TYPO3com <[noreply@typo3.com](mailto:noreply@typo3.com)>  
Tested-by: Benni Mack <[benni@typo3.org](mailto:benni@typo3.org)>  
Reviewed-by: Benni Mack <[benni@typo3.org](mailto:benni@typo3.org)>

## History

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### #1 - 2020-03-13 11:11 - Gerrit Code Review

- Status changed from New to Under Review

Patch set 1 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server. It is available at <https://review.typo3.org/c/Packages/TYPO3.CMS/+63702>

### #2 - 2020-03-13 11:12 - Markus Klein

- Follows Bug #90751: database compare shows differences for fresh installation added

### #3 - 2020-03-13 17:44 - Markus Klein

The proposed patch solves the problem when a single field is to be renamed for a table, but does not solve the issue if multiple fields are to be changed.

The reason is hidden in  
`\TYPO3\CMS\Core\Database\Schema\ConnectionMigrator::getUnusedFieldUpdateSuggestions`

There it says "// Treat each changed column with a new diff to get a dedicated suggestions just for this single column."

This works for DB-Systems which need only 1 statement to adjust the schema for each column, but fails on SQLite where a column rename is a series of at least 5 statements (via temporary table).

If one than more column for the same table needs to be renamed the subsequent statements are calculated without knowing about the changes from the first column to change. This leads to absolute chaos.

Two possible solutions for SQLite therefore are:

1. Allow only a single field per table to be renamed at once
2. Rename all fields per table at once (no individual choice possible for single fields)

### #4 - 2020-03-13 17:48 - Markus Klein

- Related to Bug #90758: Renaming of column does work in sqlite with db compare added

**#5 - 2020-03-13 17:48 - Mathias Brodala**

- Description updated

**#6 - 2020-03-13 17:48 - Mathias Brodala**

- Description updated

**#7 - 2020-03-13 17:50 - Markus Klein**

Patch <https://review.typo3.org/c/Packages/TYPO3.CMS/+63702> was reassigned to ticket [#90758](#)

**#8 - 2020-03-13 17:59 - Gerrit Code Review**

Patch set 3 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server. It is available at <https://review.typo3.org/c/Packages/TYPO3.CMS/+63702>

**#9 - 2020-03-13 17:59 - Gerrit Code Review**

Patch set 1 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server. It is available at <https://review.typo3.org/c/Packages/TYPO3.CMS/+63712>

**#10 - 2020-03-13 18:03 - Gerrit Code Review**

Patch set 2 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server. It is available at <https://review.typo3.org/c/Packages/TYPO3.CMS/+63712>

**#11 - 2020-03-13 20:02 - Gerrit Code Review**

Patch set 3 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server. It is available at <https://review.typo3.org/c/Packages/TYPO3.CMS/+63712>

**#12 - 2020-03-13 20:13 - Gerrit Code Review**

Patch set 6 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server. It is available at <https://review.typo3.org/c/Packages/TYPO3.CMS/+63702>

**#13 - 2020-03-16 21:06 - Gerrit Code Review**

Patch set 1 for branch **9.5** of project **Packages/TYPO3.CMS** has been pushed to the review server. It is available at <https://review.typo3.org/c/Packages/TYPO3.CMS/+63745>

**#14 - 2020-03-16 21:06 - Gerrit Code Review**

Patch set 2 for branch **9.5** of project **Packages/TYPO3.CMS** has been pushed to the review server. It is available at <https://review.typo3.org/c/Packages/TYPO3.CMS/+63745>

**#15 - 2020-03-17 09:30 - Markus Klein**

- Status changed from *Under Review* to *Resolved*

- % Done changed from 0 to 100

Applied in changeset [decea21ae67e05c2e358b74261a6ca037cc4867a](#).

**#16 - 2020-04-01 21:15 - Benni Mack**

- Status changed from *Resolved* to *Closed*

**#17 - 2021-08-04 15:10 - Daniel Siepmann**

- Related to Bug [#94710](#): Database Compare "Change fields" with SQLite shows red error added

**#18 - 2021-08-04 15:10 - Daniel Siepmann**

- Related to Bug [#94709](#): TypeError for SQLite in DB Compare added

**Files**

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Screenshot from 2020-03-13 09-29-37.png	128 KB	2020-03-13	Daniel Siepmann
compare.txt	111 KB	2020-03-13	Daniel Siepmann