



Collabora Productivity

Writer data source for mail merge

By Andras Timar

Product Development Manager at Collabora Productivity

@CollaboraOffice +Libreoffice-from-Collabora

Mail merge

Concept

- Main document – invariant parts + fields
- Data that is used to fill in information in main document
- Merged document – combination of main document and data

Data sources

- Database tables
- Spreadsheets
- CSV files
- Etc. – whatever that has a connectivity driver in LibreOffice

Feature request from a client

Data is in text document

- MS Word can use tables in text documents as data source
- This was missing feature in LibreOffice
 - “Can you possibly copy the data to Calc and use it instead?”
 - “No...”
 - “OK, then let’s implement this feature for you.”

Implementation

Drivers in connectivity

Existing drivers

- Databases
- Address books
- Calc: this one is good as base
 - Loads a file and then queries things via UNO interface in read-only mode
 - Only 1-2k code lines, easy to grok

Writer table

- A table consists of rows, rows consist of cells
- No “columns”!
- User must provide such tables as data source that has equal number of cells in each row
 - Not a hard requirement, I think :)

Implement UNO interfaces (stubs)

“Copy” the Calc driver

- Driver
- Connection
- DatabaseMetaData
 - List of tables is visible in Data Sources
- Catalog
- Tables
- Table
 - Actual reading of table content from the text document
- Columns
- PreparedStatement
- ResultSet
 - Column headers and table data show up on the UI
- Statement



Enable Writer tables in dbaccess module

introduce DATASOURCE_TYPE::DST_WRITER

- Reuse the spreadsheet code
- Possible to create data source on UI where the backend is a Writer document
 - It must contain at least 1 table

Enable the new 'writer' driver in mail merge

In sw module

- Map .odt, .sxw, .doc, and .docx extensions to sdbc:writer:

Unit test

In sw/qa/extras/mailmerge

- Add a unit test for writer data source testcase
 - Generate a merged document for 10

Refactoring in connectivity module

Share code between calc and write drivers

- OCalcResultSet and OWriterResultSet → OComponentResultSet
 - Provides data source functionality based on a file loaded into a LibreOffice component
- OCalcStatement and OWriterStatement → OComponentStatement
 - Provides statement functionality based on a file loaded into a LibreOffice component
- OCalcPreparedStatement and OWriterPreparedStatement → OComponentPreparedStatement
- OCalcColumns and OWriterColumns → OComponentColumns

All done in 3 days...

... by Collabora's engineering star, Miklós Vajna

Screenshot

The screenshot displays a software interface with a sidebar on the left and a main document area. The sidebar contains a tree view with the following structure:

- Bibliography
- names0
 - Queries
 - Tables
 - Table1

The main document area shows a text document with the following content:

Dear <Salutation> <Name>.

Thanks for using our product.

Below the text, there is a table preview with the following data:

Salutation	Name
Mr.	John Doe
Ms.	Jane Doe
Prof. Dr.	Albert Einstein

The interface also includes a top toolbar with various icons and a bottom status bar showing "Page 1 of 1", "12 words, 60 characters", "Default Style", and "Hungarian".





Collabora Productivity

Summary

- Collabora can fix everything thrown at us
- Writer tables as mail merge data source
 - Collabora GovOffice 5.3 and Collabora Office 5.3
 - LibreOffice 6.0

By Andras Timar

@CollaboraOffice

+LibreOffice-from-Collabora

libreoffice@collabora.com