Writer data source for mail merge

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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
Dear <Salutation> <Name>,

Thanks for using our product.

<table>
<thead>
<tr>
<th>Salutation</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr.</td>
<td>John Doe</td>
</tr>
<tr>
<td>Ms.</td>
<td>Jane Doe</td>
</tr>
<tr>
<td>Prof. Dr.</td>
<td>Albert Einstein</td>
</tr>
</tbody>
</table>
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

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