Mail merge embedding in LibreOffice Writer

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About Miklos

- From Hungary
  - More blurb: http://vmiklos.hu/
- Google Summer of Code 2010/2011
  - Rewrite of the Writer RTF import/export
- Writer developer since Feb 2012
- Contractor at Collabora since Sept 2013
Embedding a mail merge data source definition
Embedded objects

- Cross-platform for native data models
- Windows-only: OLE
- Bitmap (replacement image) + native data
- In Writer: text embedded object
  - Part of the document body (anchored, etc.)
Mail merge
data source definition

- Typical use-case:
  - Real data source
  - Base document (wrapper): data source definition
- Global inside LibreOffice
Results #1

- Save your document template
- Tools → Mail Merge Wizard
- Select Address list → e.g. a .ods file
- Edit document
Results #2

- Insert mail merge fields
- Return to the wizard
Results #3

- Save merged document
- Save as single document
- Click on save document
- Close the merged result, no need to save
Results #4

- Embedded data source is registered
- Close the mail template
- Data source definition disappears
Results #5

- Open the mail template
- Embedded data source definition is registered again
How is this implemented?
Embedding a Base document

- `dbaccess::ODatabaseDocument`
  - Does not inherit from `SfxBaseModel`
- `dbaccess::ODatabaseContext` is the global manager
- No `SwOLENode`, just `OCommonEmbeddedObject`
- `SwDBManager`'s `StoreEmbeddedDataSource()` is the implementation
ODF filter

- Newly handled parameters:
  - TargetStorage
  - StreamRelPath
  - BaseURI
- dbaxml::ODBFilter is the importer
- dbaxml::ODBExport is the export
- loadFromStorage() not implemented, storeToStorage() needed fixing
Embedding without a text embedded object

- ODatabaseContext owns the doc model
- In ODF, settings.xml refers the storage of the XML streams
- It gets registered on load
- It gets removed on close
Mail merge wizard

- SwDBManager's LoadAndRegisterDataSource() does the creation
- The Writer document has to be saved, so it has a storage
  - The embedded model then can be a sub-storage
Address book wizard

- Another user interface to create data source definitions
- Code in extensions/source/abpilot/
Relative references, testing

- Feature: relative references
  - So .odt and .ods can travel together
- But ../ would refer to the non-embedded parent model
- Have to support even ../../
- If the parent doc moves → need to re-save the embedded doc
- SwUiWriterTest's testEmbeddedDataSource()
Thanks

• Collabora is an open source consulting company
  • What we do and share with the community has to be paid by someone

• LHM sponsored this work
Summary

- Mail merge embedding allows mail merge with just two (ODT and e.g. ODS) documents
  - Available in LibreOffice 5.1
  - Improves experience for those who migrate from Microsoft Office
  - One more long-standing problem solved
- Thanks for listening! :-)
- Slides: http://vmiklos.hu/odp