



Collabora Productivity

A year in LibreOffice's RTF support

By Miklos Vajna

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2016-09-08



About Miklos

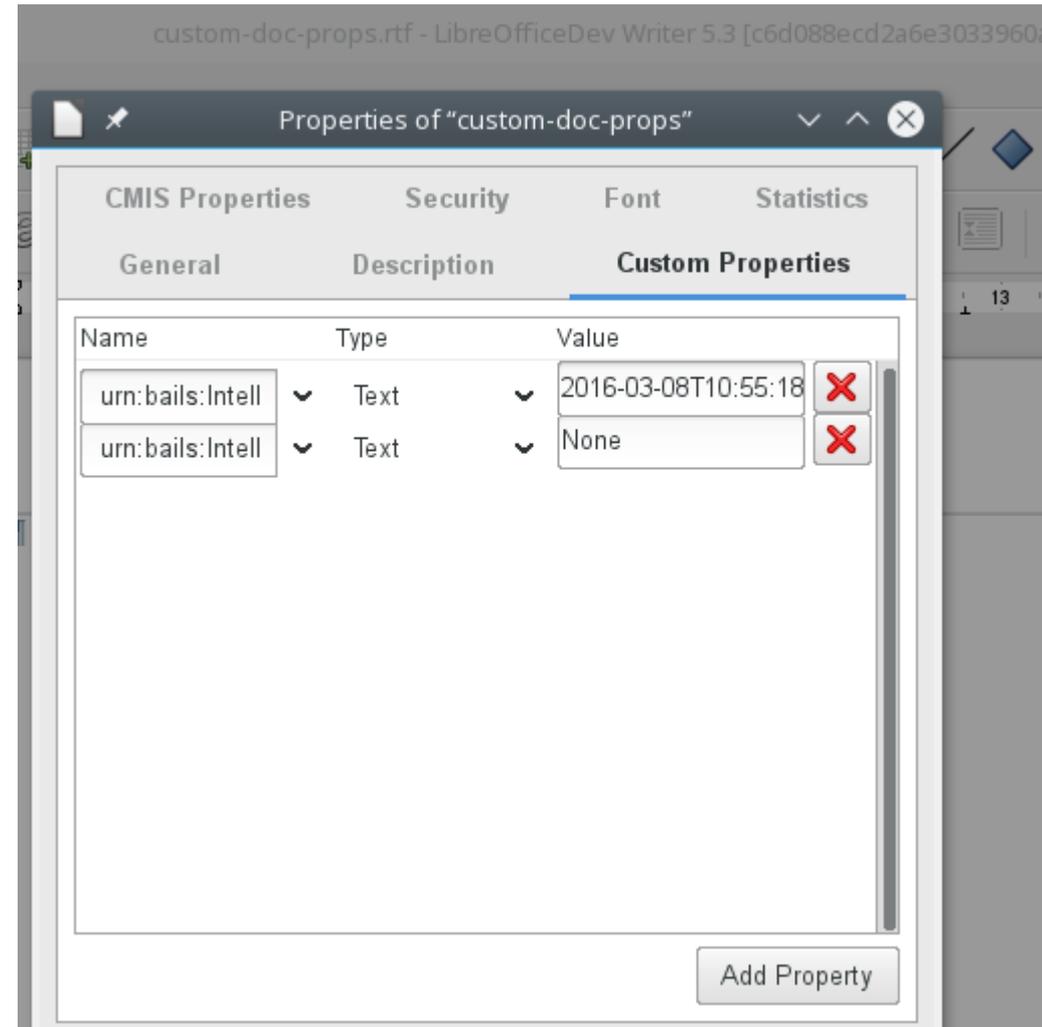
- From Hungary
 - More blurb: <http://vmiklos.hu/>
- Google Summer of Code 2010/2011
 - Rewrite of the Writer RTF import/export
- Writer developer since Feb 2012
- Contractor at Collabora since Sept 2013

Writer RTF filter maintenance



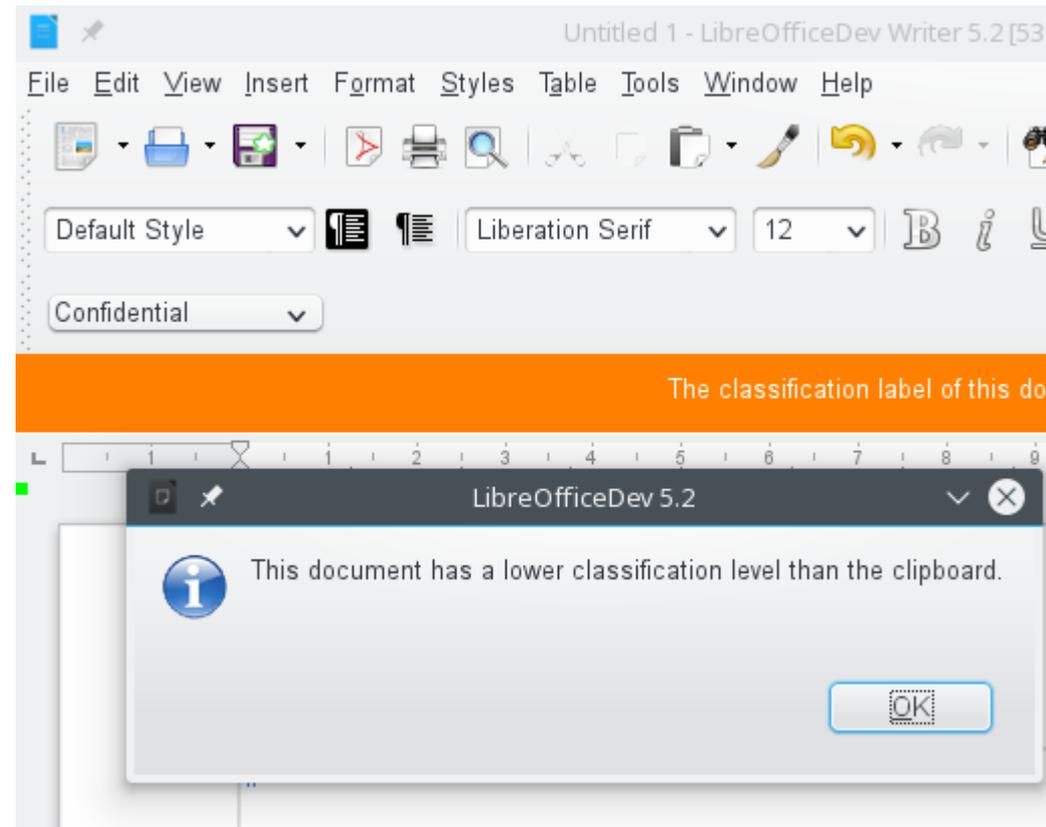
New features #1

- Maintenance is mostly about bug-fixing, but...
- User-defined properties:
 - Both RTF import and export



New features #2

- Classification support: copy&paste
- Provide the info on export
- Parse and limit on import



Bugfixes #1

- tdf#92521 RTF export: handle section break right after a table

Original

Before

Second page

Before / bad

Before

Second page

After / good

Before

Second page

Bugfixes #2

- tdf#94043 RTF filter: implement column separator handling

```
AAA  
Section 1, first column, this has a separator. | Section 1, second col  
BBB  
Section 2, first column, this has no separator. | Section 2, second col  
CCD
```

Original

```
AAA  
Section 1, first column, this has a separator. | Section 1, second co  
BBB  
Section 2, first column, this has no separator. | Section 2, second co  
CCD
```

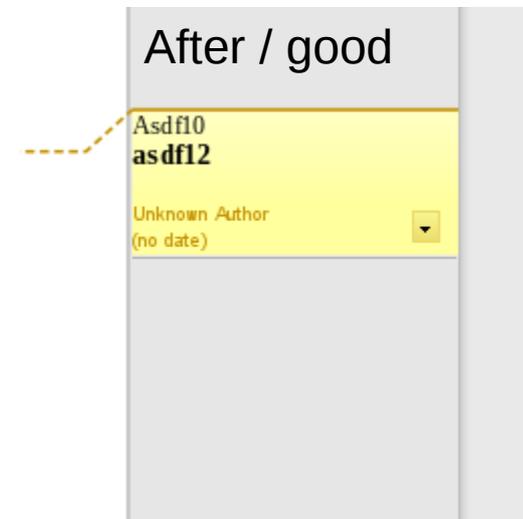
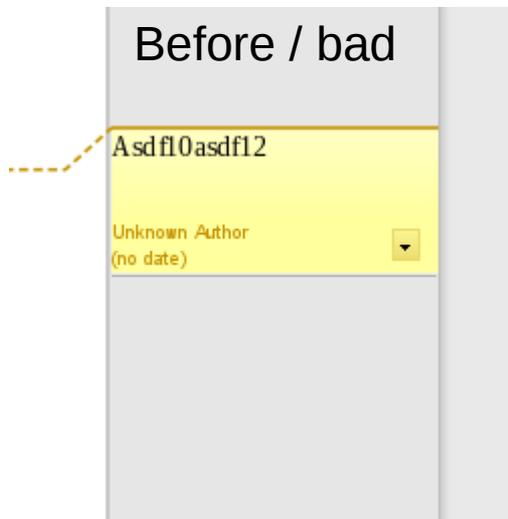
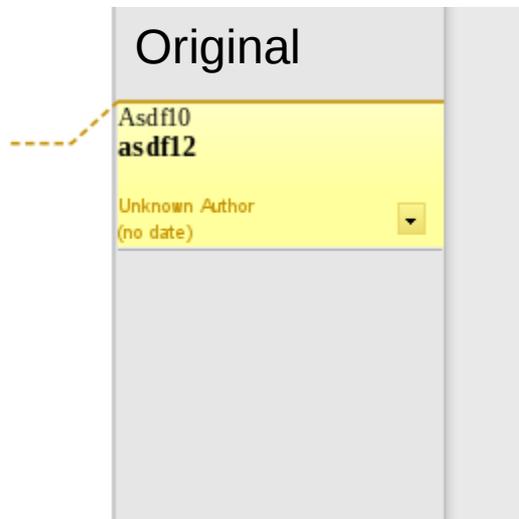
Before / bad

```
AAA  
Section 1, first column, this has a separator. | Section 1, second c  
BBB  
Section 2, first column, this has no separator. | Section 2, second c  
CCD
```

After / good

Bugfixes #3

- tdf#94377 RTF export: support comment formatting



Bugfixes #4

- tdf#61511 RTF export: handle page background solid color fill

Original



Before / bad

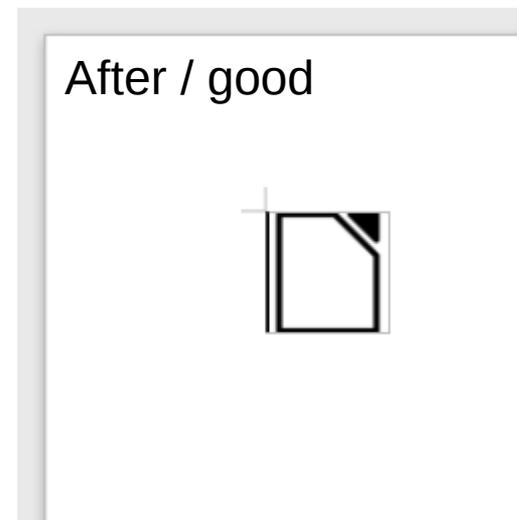
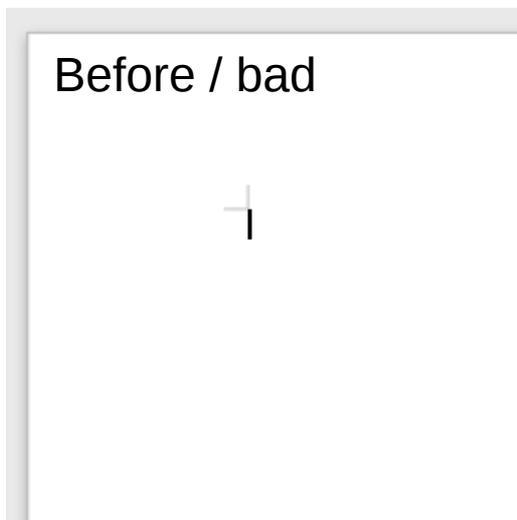


After / good



Bugfixes #5

- tdf#59699 RTF import: handle INCLUDEPICTURE field



Bugfixes #6

- tdf#65642 RTF filter: import \pgnrestart and \pgnucltr + \pgnlcltr + \pgnucrm + \pgnlcrm + \pgndec

Before / bad



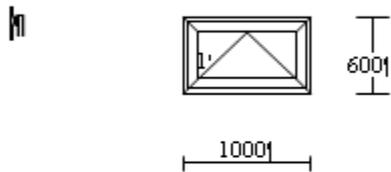
After / good



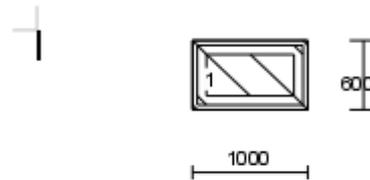
Bugfixes #7

- tdf#90097 RTF import: handle fRelFlipV property for line shapes

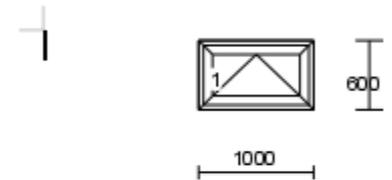
Original



Before / bad



After / good



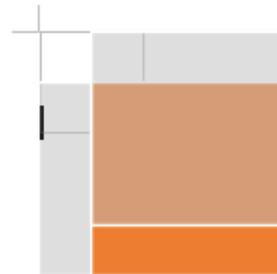
Bugfixes #8

- tdf#91684 RTF import: fix scaling of group shape children

Original



Before / bad



Fixed scaling



Bugfixes #9

- tdf#91684 RTF import: handle fFlipH and fFlipV shape props

Original



Fixed scaling



After / good



Bugfixes #10

- tdf#100507 RTF import: don't set default para style to the 0th character style

Descendants of Jacob Leffler

Generation 1

1. → JACOB¹ LEFFLER was born about 1803 in Pennsylvania. He died between 1870 in Monday Creek Township, Perry County, Ohio. He married Mary A. She was born about 1806. She died after 1880. ¶
Jacob Leffler and Mary A. Lonas had the following children: ¶
 - i. → LUCINDA² LEFFLER was born in 1834 in Perry County, Ohio. ¶
 2. → ii. GEORGE W. LEFFLER was born on 3 May 1836 in Monday Creek Township, Ohio. He died on 26 July 1899 in Wellston, Jackson County, Ohio. He married Alice Irvin, daughter of William Irvin and Naoma Wyskive 1861 in Perry County, Ohio. She was born on 5 March 1840 in Rt She died on 5 July 1926 in Trimble Township, Athens County, Ohio.
 3. → iii. JACOB A. LEFFLER was born on 9 April 1841 in Perry County, Ohio. He died on 14 June 1903 in Heppner, Morrow County, Oregon. ¶
 4. → iv. MARY ANN LEFFLER was born about 1843 in Perry County, Ohio. She married William Lutz on 25 January 1869 in Perry County, Ohio. He was born about 1839 in Perry County, Ohio. ¶
 5. → v. ELIZABETH JANE LEFFLER was born in September 1846 in Monday Creek Township, Perry County, Ohio. ¶
 - vi. → JOHN H. LEFFLER was born on 12 February 1851 in Monday Creek Township, Perry County, Ohio. He died on 17 September 1873 in Monday Creek Township, Perry County, Ohio. ¶

Generation 2

2. → GEORGE W.² LEFFLER (Jacob¹) was born on 3 May 1836 in Monday Creek

Original

Descendants of Jacob Leffler

Generation 1

- JACOB¹ LEFFLER was born about 1803 in Pennsylvania. He died between Monday Creek Township, Perry County, Ohio. He married Mary A. Lona about 1806. She died after 1880.
- Jacob Leffler and Mary A. Lonas had the following children:
- LUCINDA² LEFFLER was born in 1834 in Perry County, Ohio.
- ii. GEORGE W. LEFFLER was born on 3 May 1836 in Monday Creek Township on 26 July 1899 in Wellston, Jackson County, Ohio. He married Alice Irvin, c Naoma Wyskiver, on 24 January 1861 in Perry County, Ohio. She was born County, Ohio. She died on 5 July 1926 in Trimble Township, Athens County,
 - iii. JACOB A. LEFFLER was born on 9 April 1841 in Perry County, Ohio. He die Jewell County, Kansas. He married Susan E. Rudisill on 15 July 1863 in Perry County, Ohio. She died on 14 June 1903 in Heppner, Morrow County, Ohio.
 - iv. MARY ANN LEFFLER was born about 1843 in Perry County, Ohio. She married William Lutz on 25 January 1869 in Perry County, Ohio. He was born about 1839 in Perry County, Ohio
 - v. ELIZABETH JANE LEFFLER was born in September 1846 in Monday Creek Township, Perry County, Ohio.

Before / bad

Descendants of Jacob Leffler

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After / good



Technical details



Show me the code!

- Code is mostly at:
 - `sw/source/filter/{rtf,ww8/rtf*}` – export
 - `writerfilter/source/rtftok/` – import
- 69 commits:
 - 31 bugfixes
 - 38 new feature / refactor



Testing

- 37 new tests
- No single bugfix without a matching unit test in the last year!
- 0 regressions in the bugzilla:
 - RTF in the summary, keywords: regression
 - And no resolution
- Sample one-liner regression test:

```
CPPUNIT_ASSERT_EQUAL(static_cast<sal_Int32>(6618),  
                      getProperty<sal_Int32>(getParagraph(1), "ParaLeftMargin"));
```

Refactor

- `std::lround()`
- Consistent prefixes
- Cross-directory includes
- **C++11 auto**

```
for (std::vector<std::pair<Id, RTFValue::Pointer_t>>::const_iterator i =  
    m_pSprms->begin();  
    i != m_pSprms->end(); ++i)
```

VS

```
for (auto& rSprm : *m_pSprms)
```

Summary

- The LibreOffice Writer RTF filter keeps improving
 - New features from time to time
 - Regular bugfixes
 - 0 known regressions
- Thanks for listening! :-)
- Slides: <http://vmiklos.hu/odp>

