Introduction

Why OOXML compatibility is an issue?

- Migration or mixed environment
- Replacement of MSO

What will I speak about?

- Areas of comp. issues
- Improvements done in last year
- Future possibilities
Form controls
1.1 Heutige Nutzung des UP5
Wie häufig nutzen Sie den UP5?
☐ wöchentlich
☑ monatlich
☐ 1-2 mal pro Jahr
☐ nie
Bemerkung: ____________________________

Welche Ebenen des UP5 nutzen Sie hauptsächlich? (Mehrfachantwort möglich)
☐ Situation
☐ Parzellenetz
☐ Parzellennummern
Bemerkung: ____________________________

Wie nutzen Sie den UP6? (Mehrfachantwort möglich)
☐ Als alleinige Darstellung
☐ Als Kartenhintergrund zur Überlagerung mit weiteren Themen
Form controls

LibreOffice

- Lots of different control types: option button, radio button, pushbutton, combobox, listbox, picture button, etc
- Floating objects: can be anchored as text or as a shape object

MS Office

- Three kind of controls: legacy, ActiveX and content
- Content control: new controls, control types: plain text, image, checkbox, combobox, listbox, date picker
- ActiveX controls: floating, more visual properties (background color, triple state, word wrap, image, alignment)
MSO control types
What’s done about form controls?

**ActiveX controls**

- Now imported from DOCX files (tdf#91384)
  - Before only XSLX and PPTX was supported
- LO form controls are exported as MSO ActiveX controls (tdf#50097)
  - ActiveX controls are matching the best to LO form controls
    - Floating objects, similar additional properties, similar types
    - One serious limitation is the missing preset items for list controls
  - Except date picker, which has a better matching with content control
Implementation details

Position, size and anchor

- Specified in /word/content.xml, defined as a VML shape
- A bit different XML tags when the control is a floating object (pict or object context)

Control properties

- Binary file inside DOCX, /word/activeX/activeX1.bin
- /word/activeX/activeX1.xml contains some options how to read that binary
- This binary data seems to be picked up from the DOC binary format
Future possibilities

Check specific controls whether ActiveX the best match

- Maybe list controls (combobox and listbox) would be better to save as content control (because of preset items)
Future possibilities

Small issues in ActiveX control support (easy hacks)

- ActiveX control locked / read only property is not imported (tdf#111417)
- Additional picture of button control is not saved to DOCX
- Text color of ActiveX controls are not saved to DOCX
Vertical text in a table
Vertical text in MSO
Vertical text in a table

**MS Office**

- Vertical text for most of the container objects (tables, shapes, text boxes)
- Two supported rotation angle (90° and 270°)

**LibreOffice**

- Has some vertical text support, but this is related to different language scripts (right-to-left, top-to-bottom, etc)
- Needed to have an actual rotation property which is independent of other font script properties.
What’s done about vertical text?

**Implemented text rotation for Impress tables**

- Now text rotation is imported from PPTX files (tdf#100926)
- The same two rotation angles are supported
- By now it’s only available via UNO API, can’t set on the GUI
Implementation details

Different levels of text rotation implementation

- Low level code was already there (Calc has text rotation in cells)
- Medium level was added during implementation.
  - Editengine now handles TopToBottom and BottomToTop text.
  - Both during editing and in non-active mode.
- Higher level
  - PPTX import filter now handles the vertical properties (vert, vert270)
  - Calc table cells has this property already, so we did not need to extend API or ODF.
Future possibilities

GUI option for vertical text in Impress tables

- tdf#111633: Missing GUI option for text rotation inside Impress table

Extend vertical text support for other objects

- Writer tables
  - They have a different implementation (sw core)
  - ODF property is already there
- Shapes, text boxes, text frames
Pivot tables
A pivot table example

<table>
<thead>
<tr>
<th>ANNO</th>
<th>MESE</th>
<th>Sum - kg prod 1</th>
<th>Sum - kg prod 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>GENNAIO</td>
<td>1000000</td>
<td>890000</td>
</tr>
<tr>
<td></td>
<td>FEBBRAIO</td>
<td>250000</td>
<td>200000</td>
</tr>
<tr>
<td></td>
<td>MARZO</td>
<td>360000</td>
<td>240000</td>
</tr>
<tr>
<td></td>
<td>APRILE</td>
<td>390000</td>
<td>450000</td>
</tr>
<tr>
<td></td>
<td>MAGGIO</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>GIUGNO</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>LUGLIO</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AGOSTO</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SETTEMBRE</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OTTOBRE</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NOVEMBRE</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DICEMBRE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(empty)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Result</td>
<td>1000000</td>
<td>890000</td>
<td></td>
</tr>
</tbody>
</table>
Pivot table

In general

● Special table to organize and aggregate data
● Complex feature supported both by LO and MSO

Issues

● Lots of issues related to MSO compatibility
● Most serious type: corruption and data loss after RT in Calc
What’s done about pivot tables?

Performance improvement (tdf#102694)

- Pivot cache behind the pivot table
- Groups are shared between tables
- Specific test document import time 20 min → 0.5 min

Larger and smaller fixes (still working on that)

- Pivot table’s layout was wrongly exported (tdf#112946)
- Corrupted XLSX was generated by LO (tdf#112893)
- Filtering of different fields were not preserved (tdf#107711)
Filtering of a pivot field
Implementation details

MSO pivot table

- Different table layout modes: outline, tabular and compact.
  - LO supports outline and tabular form, but not the compact mode
- Pivot table definition and pivot cache
  - Pivot table: fields, layout, etc
  - Cache contains the shared items, groups, etc.
  - Redundancy in pivot cache definition for robustness (repair dialog)
Future possibilities

Support compact mode in LO

- It needs to have a different pivot table output, with some additional buttons
- LO already support outline and tabular mode, so might be easy to add a new mode (e.g. ODF extension)

Improve performance of XLSX import

- UNO API usage seems slow
- Also pivot cache handling might has issues
Outline mode vs compact mode

<table>
<thead>
<tr>
<th>ANNO</th>
<th>MESE</th>
<th>Valori</th>
<th>Somma di kg prod I</th>
<th>Somma di kg prod T</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>GENNAIO</td>
<td>250 000</td>
<td>200 000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FEBBRAIO</td>
<td>360 000</td>
<td>240 000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MARZO</td>
<td>390 000</td>
<td>450 000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>APRILE</td>
<td>0</td>
<td>0</td>
<td></td>
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<td>NOVEMBRE</td>
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<td>DICEMBRE</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
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<td>(blank)</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>GENNAIO</td>
<td>250 000</td>
<td>200 000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FEBBRAIO</td>
<td>360 000</td>
<td>240 000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MARZO</td>
<td>390 000</td>
<td>450 000</td>
<td></td>
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<tr>
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<td>APRILE</td>
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<td>DICEMBRE</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>(blank)</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Grand Total | 1 000 000 | 890 000 | 1 000 000 | 890 000 |
Thank you!

By Tamás Zolnai
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