

Enhancements for two *Fields* in Writer for AOO 4.1

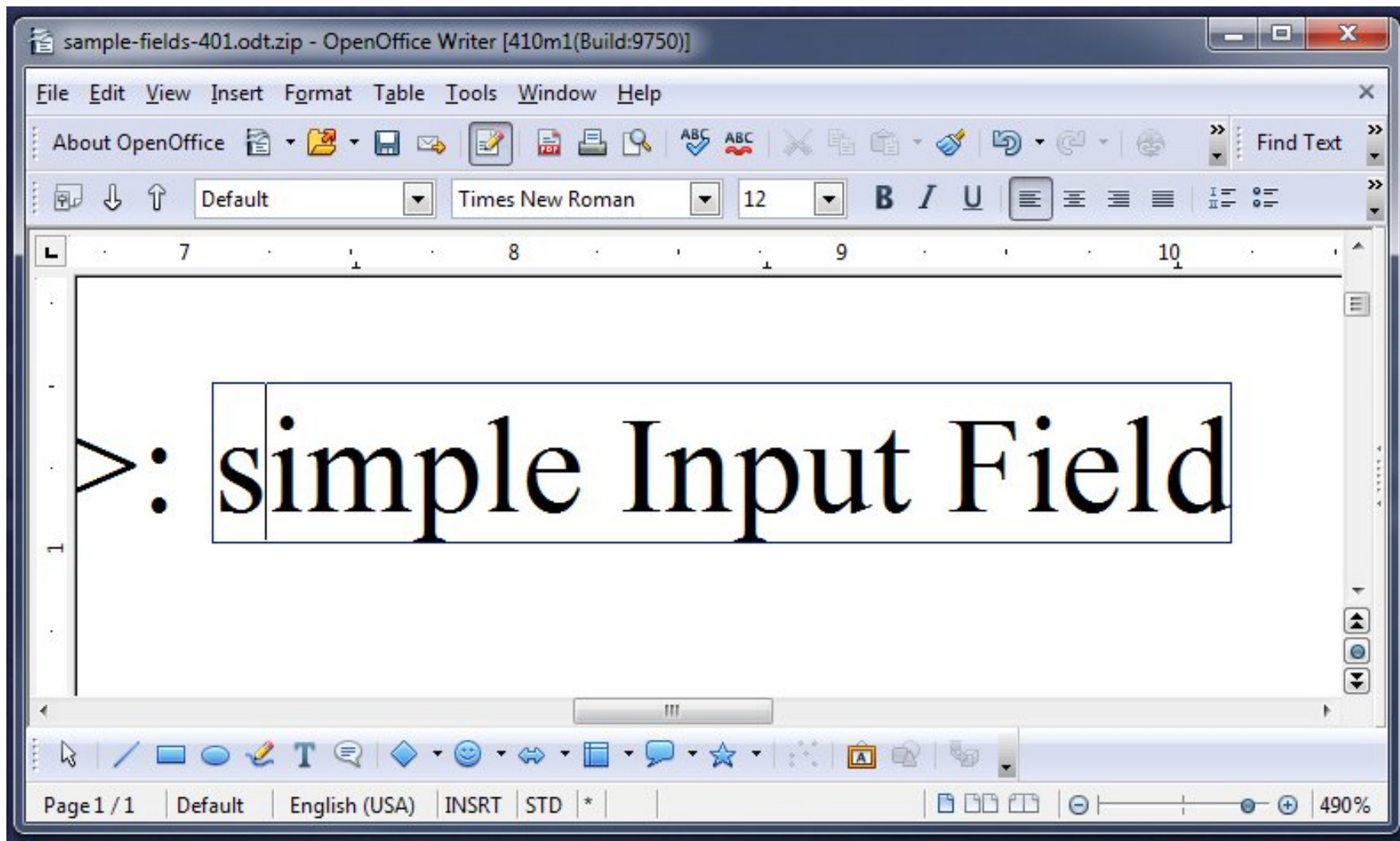
a developer's perspective

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Agenda

- ☺ The enhancements
- ☺ Writer's model for Fields
- ☺ Details on the implementations
 - Challenges and chosen approaches
- ☺ Overlay objects
 - The chosen feature for UI visualizations

In-place editing of Input Fields



<http://s.apache.org/AOO410-InputFields>



Apache
OpenOffice™

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Annotations on text ranges

He heard quiet steps behind him. That didn't bode well. Who could be following him this late at night and in this **deadbeat** part of town? And at this particular moment, just after he pulled off the big time and was making off with the greenbacks.

1. Flat
2. House
3. Villa
4. Mansion

Was there another crook who'd had the same idea, and was now watching him and waiting for a chance to grab the fruit of his labor? Or did the steps behind him mean that one of many law officers in town was on to him and just waiting to pounce and snap those cuffs on his wrists? He nervously looked all around. Suddenly he saw the alley. Like lightning he darted off to the left and disappeared between the two warehouses almost falling over

Annotation on a single word

Oliver-Rainer Wittmann
Today, 12:47

Annotation on arbitrary text range

Oliver-Rainer Wittmann
Today, 12:47

<http://s.apache.org/AOO410-AnnotationOnTextRanges>

Fields are text attributes!

- ☉ Specializations of *class SwField*
 - Field properties
 - Annotations and Input Fields are both Fields
 - *class SwPostItField* resp. *class SwInputField*
- ☉ *Class SwTxtFld : SwTxtAttr*
 - Applied to a special character in the text
- ☉ *Class SwFmtFld : SfxPoolItem*
 - WhichID = *RES_TXTATR_FIELD*
 - Connects the text attribute *SwTxtFld* with the field properties *SwField*

Challenges for in-place editing

- ☉ Input Field's content is not part of the paragraph's text model
- ☉ Input Fields contain only simple text
 - No formatting
 - No sub components
- ☉ Enable 'Enter' and 'Leave' of Input Field
 - Insert text at beginning/end of Input Field
 - Insert text before/after Input Field
- ☉ Traveling from Input Field to Input Field
- ☉ Allow editing in read-only documents

Approach for in-place editing

- ☉ Need to insert Input Field's content into the paragraph's text model
- ☉ New text attribute
 - New *class SwTxtInputFld : SwTxtFld*
 - New attribute item
 - Instance of *class SwFmtFld* with new `WhichID = RES_TXTATR_INPUTFIELD`
- ☉ Insert special characters at begin and end
- ☉ Restricted UI for cursor inside Input Field
- ☉ Visual feedback on 'Enter' and 'Leave' with an overlay object



Challenges for annotations

- ☉ Integration of the OSBA patches
 - Rely on 'Fieldmark' feature
 - Not complete regarding the feature
- ☉ Arbitrary text ranges
 - Spanning several paragraphs
 - Spanning table cells
- ☉ Overlapping annotated text ranges

Approach for annotations

- ➊ New mark type *sw::mark::AnnotationMark* to model annotated text range
- ➋ New text attribute
 - New class *SwTxtAnnotationFld : SwTxtFld*
 - New attribute item
 - instance of class *SwFmtFld* with
new WhichID = *RES_TXTATR_ANNOTATION*
- ➌ Relation via unique name
- ➍ Visualization of the annotated text range with an overlay object

Overlay objects in the UI

- General easy-to-use feature to show arbitrary objects on top of the document view
- Specializations of *class sdr::overlay::OverlayObject*
- Already used in Writer for
 - Text selections
 - Anchor positions of annotations

Overlay objects for Fields

☉ Input Fields

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Thanks & QA