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
Annotations on text ranges

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

- New mark type `sw::mark::AnnotationMark` to model annotated text range
- New text attribute
  - New class `SwTxtAnnotationFld : SwTxtFld`
  - New attribute item
    - instance of class `SwFmtFld` with new `WhichID = RES_TXTATR_ANNOTATION`
- Relation via unique name
- 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

- Spezializations of \texttt{class sdr::overlay::OverlayObject}

- Already used in Writer for
  - Text selections
  - Anchor positions of annotations
Overlay objects for Fields

Input Fields

if town? And at this particular moment, just with the greenbacks and the blueberries. Was as now watching him and waiting for a chance.

Annotations

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...
Thanks & QA