OpenOffice UI layout
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Michael Meeks
michael.meeks@novell.com

“Stand at the crossroads and look; ask for the ancient paths, ask where the good way is, and walk in it, and you will find rest for your souls...” - Jeremiah 6:16
Overview

• The problem
  - understanding the issues
  - comparing ourselves with the others

• Outline of dialog layout
  - the curious design
  - the minimal code changes
  - the end result

• Getting it & helping out ...

• Conclusions
The problem(s)
OO.o's GUI problems ...

• Scale
  • ~½ million lines of .src/.hrc, >1 million lines of GUI interacting code
  • Comparison: mozilla's browser.jar: all 47 .xul = <7000 lines.

• The UI looks 'ugly' ...
  • no layout support in toolkit
  • native theming not perfect.
  • no User Experience UI editing ...

• Fairly tight coupling code -> VCL

• Defeatist attitude ...
  • no-one has succeeded => it is impossible => no-one can succeed => no-one tries: it can't be done!
  • “it can only be fixed by a 100 man-year effort”...
Cell formatting ... MS

- Beautiful Ribbon all well & good (or not) but ...
- Ultimately – a thinnish wrapper hiding some of the underlying dialogs for some tasks:
Cell formatting ... MS
Cell formatting ... Gnumeric
Cell formatting ... Calc

Format Cells

- **Text alignment**
  - Horizontal: Default
  - Vertical: Default

- **Text orientation**
  - Degrees: 0
  - Reference edge:

- **Properties**
  - Wrap text automatically
  - Hyphenation active
  - Shrink to fit cell size

[Options: OK, Cancel, Help, Reset]
Platform widgets ...

• OS/X 's widgets are “chunkier” than ours

• So to fit the widgets in can either:
  - leave extra space for them ?
    > Makes other people's apps look ugly
  - or render & interpolate down the widgets
    > Making them look extremely ugly

• Previously seen in eg. properties dialogs
  - I assume the Mac people chose one of the above.

• Some platform's widgets “pulse” or do odd things
  - By far the best to use the native widgets where possible.
HIG compliance ...
A solution ...
An incremental solution ...

- Try not to do all 10man-years of work for the 1st release:
A container base: the box ...

```xml
<vbox>
  <hbox cnt:expand="false" cnt:fill="false">
    <pushbutton label="XML Left"
      cnt:expand="false" cnt:fill="false"/>
    <pushbutton label="XML Middle"
      cnt:expand="true" cnt:fill="false"/>
    <pushbutton label="XML Right"
      cnt:expand="true" cnt:fill="true"/>
  </hbox>
  ...
  ...
</vbox>
```
<modaldialog xmlns="http://openoffice.org/2007/layout"
    id="dialog" title="Test-Dialog" optimumsize="true" border="true"
    sizeable="true" moveable="true">
  <hbox padding="4">
    <vbox cnt:expand="true" cnt:fill="true" padding="4">
      <fixedline label="Zoom factor" cnt:expand="true"/>
      <radiobutton group="zoom" id="WholePage" label="Whole Page"/>
      <radiobutton group="zoom" id="PageWidth" label="Page Width"/>
      <radiobutton group="zoom" id="Optimal" label="Optimal"/>
      <radiobutton group="zoom" id="Zoom200" label="~200 %"/>
    </vbox>
    <vbox padding="4">
      <okbutton id="OkButton" cnt:expand="false" default="true"/>
      <cancelbutton id="CancelButton" cnt:expand="false"/>
      <helpbutton id="HelpButton" cnt:expand="false"/>
    </vbox>
  </hbox>
</modaldialog>
The massive code changes:

zoom.hxx

@@ -1,12 +1,9 @@
 #ifndef _SVX_ZOOM_HXX
 #define _SVX_ZOOM_HXX
+
 #include <layout/layout.hxx>
+
-class SvxZoomDialog : public Dialog
+class SvxZoomDialog : public layout::Dialog
 {
  private:
-    FixedLine           aZoomFl;
-    RadioButton             aWholePageBtn;
-    RadioButton             aPageWidthBtn;
-    RadioButton             aOptimalBtn;
+    aZoomFl;
+    aWholePageBtn;
+    aPageWidthBtn;
+    aOptimalBtn;
The massive code changes:

zoom.cxx

SvxZoomDialog::SvxZoomDialog( Window* pParent,
            const SfxItemSet& rCoreSet ) :

- SfxModalDialog( pParent, SVX_RES( RID_SVXDLG_ZOOM ) ),
+ Dialog( pParent, "zoom.xml", "dialog" ),

- aZoomFl ( this, SVX_RES( FL_ZOOM ) ),
- aWholePageBtn ( this, SVX_RES( BTN_WHOLE_PAGE ) ),
- aPageWidthBtn ( this, SVX_RES( BTN_PAGE_WIDTH ) ),
- aOptimalBtn ( this, SVX_RES( BTN_OPTIMAL ) ),
...
+
+ aWholePageBtn ( this, "WholePage" ),
+ aPageWidthBtn ( this, "PageWidth" ),
+ aOptimalBtn ( this, "Optimal" ),
...

(Can be hugely shrunk by re-defining SVX_RES as a 'stringifying' macro ... )
The result ...

Slightly different font sadly
Platform button ordering ...

Platform default
- Help
- Alternate
- Cancel
- OK

GNOME
- Help
- Alternate
- Cancel
- OK

KDE
- Help
- OK
- Alternate
- Cancel

MacOS
- Help
- Alternate
- Cancel
- OK

Windows
- OK
- Alternate
- Cancel
- Help
Getting it …

• Some of the work is already integrated:
  • CWS awtfixes01 (pre 3.0)
    • adding virtual sizing for VCL:Window
    • Adding XPropertySetInfo to toolkit widgets 'What properties do you have?'
    • Fixes a number of sizing & other bugs.
  • CWS layoutdialogs (in 3.0)
    • conditional compilation – configure with –enable-layout
    • otherwise core layout code enabled by default
    • i18n / translation: couple of sample dialogs: “Zoom” and “Wordcount”

• Other bits in CWS:
  • cd toolkit/workben/layout ; dmake
  • ./TEST boxtext.xml # load an XML file
  • ./TEST –test # zoom dialog
  • ./TEST –editor foo.xml # basic dialog editor …
Ongoing work

• More complex calc dialogs
  • Format cells dialog ...
  • filling out missing VCL wrapper API as we go ...

• Tab dialogs
  • more tricky =>
  • short-circuiting the purist approach
    • Embed non-layout widgets inside layouted ones & vv.

• Java.properties for i18n ?
• Packing up app UI XML files in a .zip container
• Bug fixing
• CSS for properties ?
Conclusion / Q&A

• One solution for improving the UI by adding layout

• Simple code changes / minimal skills required
  • A great place to get involved with OO.o
  • Lots of bang & prettiness added for very little buck.
  • Contact me, or janneke@gnu.org with your patches
  • Or quizz us about it on irc.freenode.net #go-oo

• Better, grab OpenSUSE 11.1, give the split build just a single component – and start prodding it's UI.

• Thanks to Ricardo (Google), and Janneke ...

Oh, that my words were recorded, that they were written on a scroll, that they were inscribed with an iron tool on lead, or engraved in rock for ever! I know that my Redeemer lives, and that in the end he will stand upon the earth. And though this body has been destroyed yet in my flesh I will see God, I myself will see him, with my own eyes - I and not another. How my heart yearns within me. - Job 19: 23-27