

# Layout: towards a more beautiful OpenOffice

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The problem ...

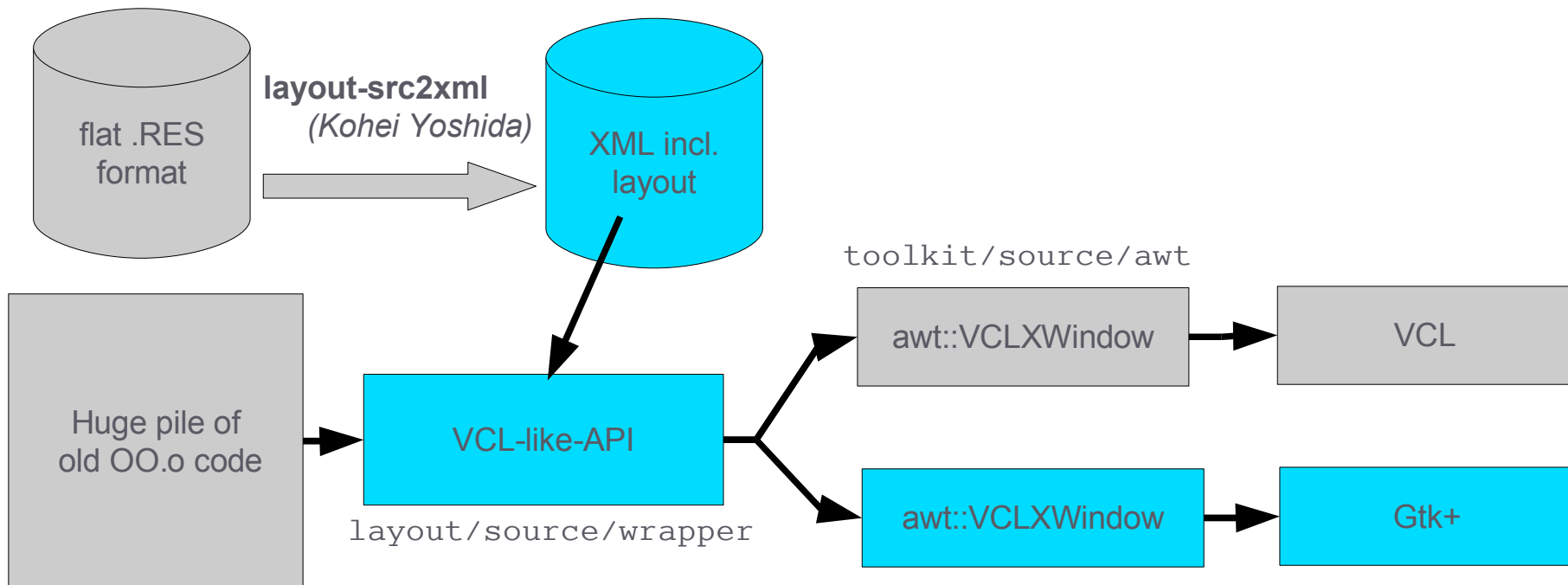
# OO.o's GUI problems ...

- Scale
  - ~1/2 million lines of .src/.hrc
  - at least 1 million lines of GUI interacting code
- The UI looks 'ugly' ...
  - no layout support in toolkit
  - native theming not perfect.
  - no User Experience UI editing ...
- Fairly tight coupling code -> VCL
  - extensive API use & implicit contracts
- 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"...*

A solution ...

# An incremental solution ...

- Try not to do all 10man-years of work for the 1<sup>st</sup> release:



# Yet-Another-XML-format ...

```
<modaldialog xmlns="http://openoffice.org/2007/layout"
  xmlns:cnt="http://openoffice.org/2007/layout/container"
  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 %"/>
    ...
    <hbox padding="2">
      <align v-align="0.5" cnt:expand="false">
        <radiobutton group="zoom" id="BtnUser" label="~Variable"/>
      </align>
      <metricfield id="User" value-step="1" custom-unit-text="%"
        repeat="true" border="true" cnt:expand="true"/>
    </hbox>
  </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;
```

# The massive code changes:

**ZOOM.CXX**

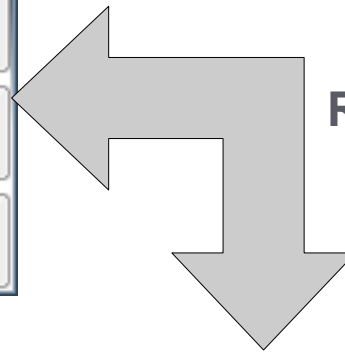
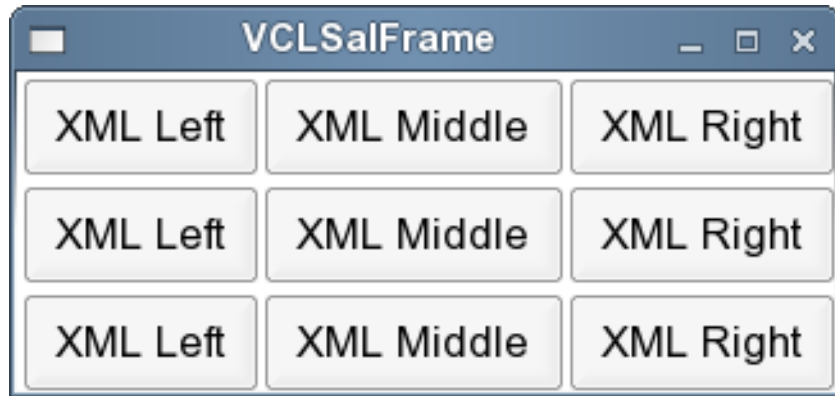
```
SvxZoomDialog::SvxZoomDialog( Window* pParent,  
                               const SfxItemSet& rCoreSet ) :
```

```
- 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" ),  
...
```

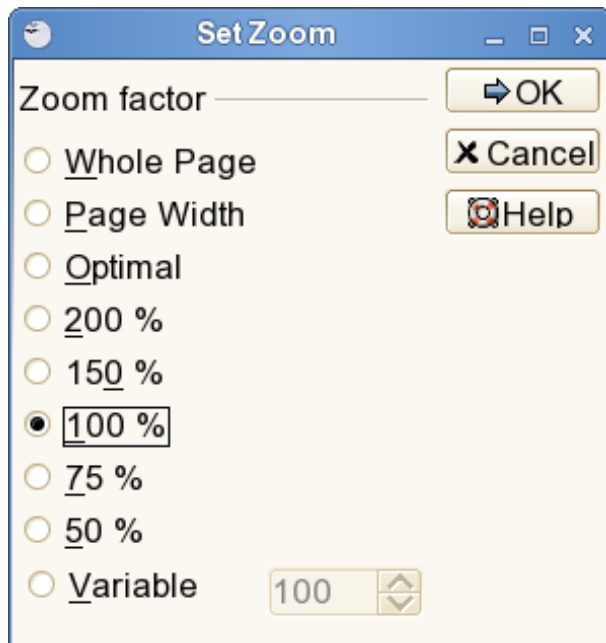
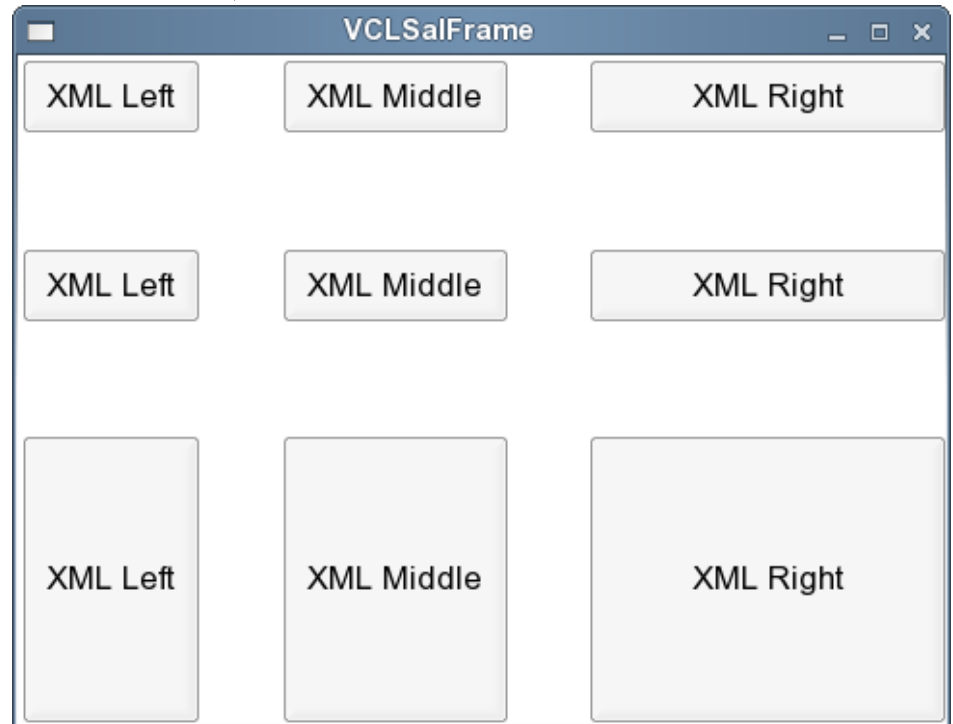
(Can be hugely shrunk by re-defining SVX\_RES as a 'stringifying' macro ... )



# The result ...



Re-sizing & re-layout ...



# Getting it ...

- CWS awtfixes01
  - adds virtual sizing method to VCL's Window
  - adds XpropertySetInfo method to Toolkit widgets
  - fixes a number of sizing & other relevant bugs
- Layout code itself (requires awtfixes01)
  - *git-clone <http://www.gnome.org/~michael/git/layout.git>*
  - *cd workben*
  - *./refresh*
  - *../unxIngi6.pro/bin/test boxtext.xml # load an XML file*
  - *../unxIngi6.pro/bin/test -test # zoom dialog*
  - *../unxIngi6.pro/bin/test -editor # basic dialog editor ...*