

# OpenOffice UI layout

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*“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*

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# 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

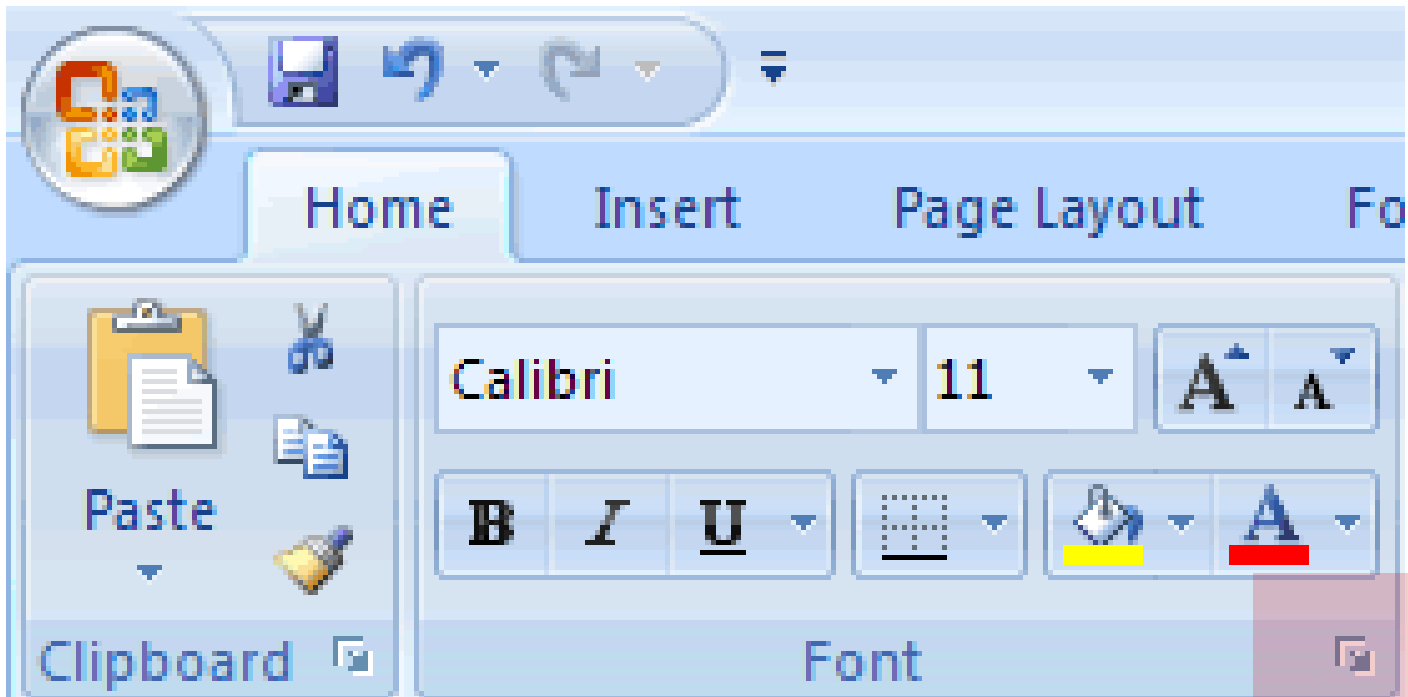
**The problem(s)**

# OO.o's GUI problems ...

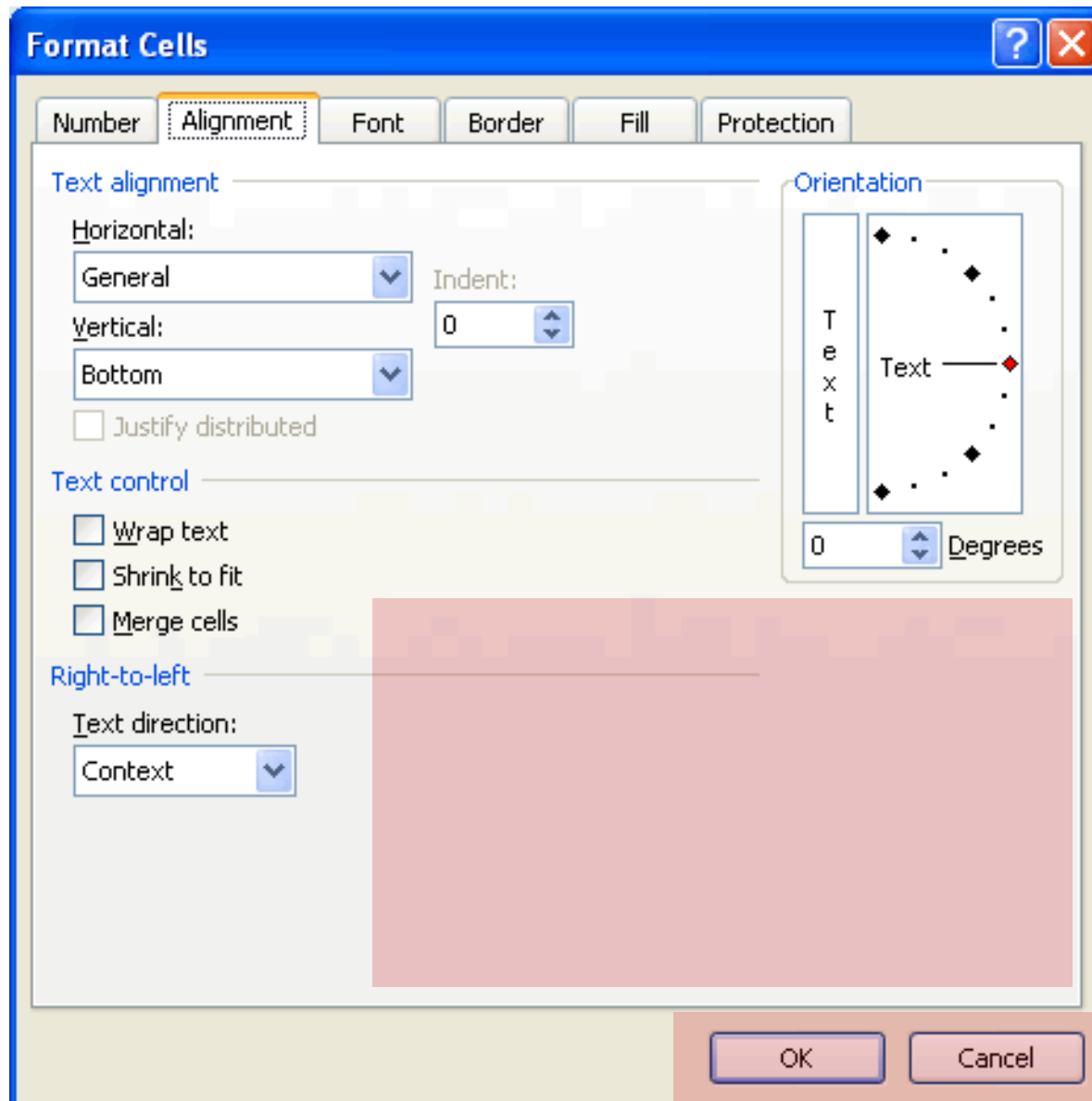
- Scale
  - ~½ million lines of .src/.hrc, >1 million lines of GUI interacting code
  - Comparison: mozilla's browser.jar: all 47 .xul = <7000 lines.
- The UI looks 'ugly' ...
  - no layout support in toolkit
  - native theming not perfect.
  - no User Experience UI editing ...
- Fairly tight coupling 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

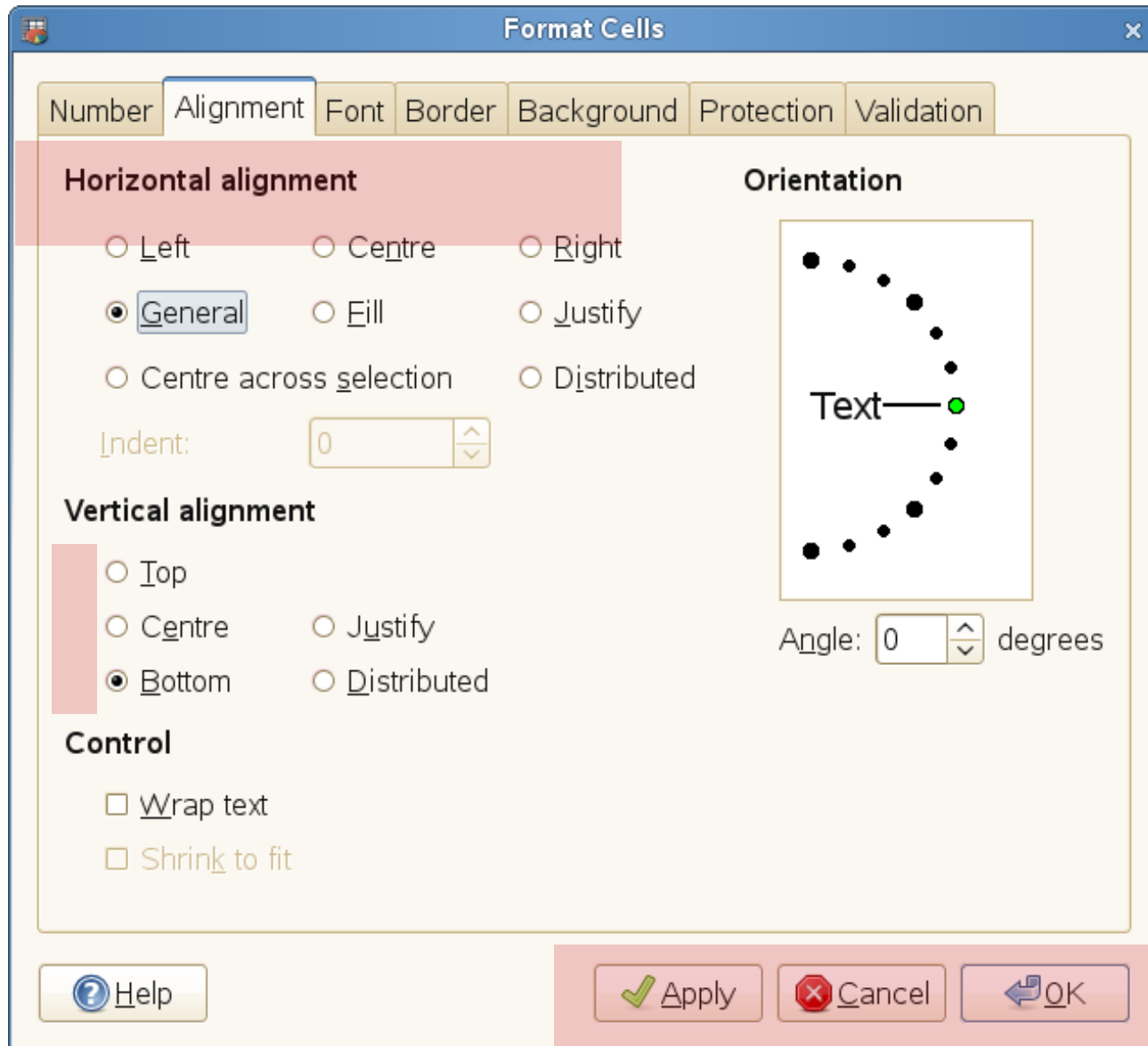
- Beautiful Ribbon all well & good (or not) but ...
- Ultimately – a thinnish wrapper hiding some of the underlying dialogs for some tasks:



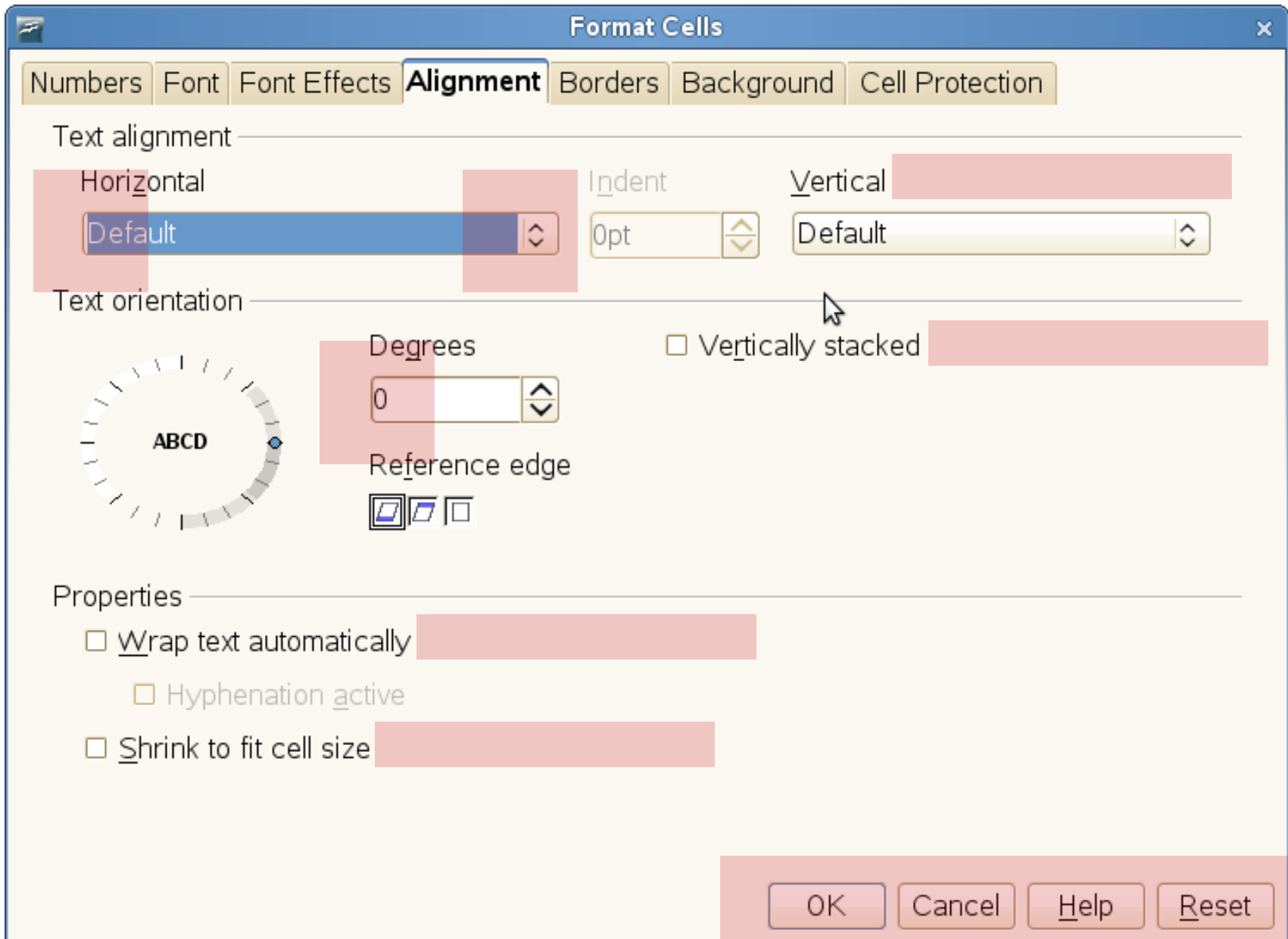
# Cell formatting ... MS



# Cell formatting ... Gnumeric



# Cell formatting ... Calc

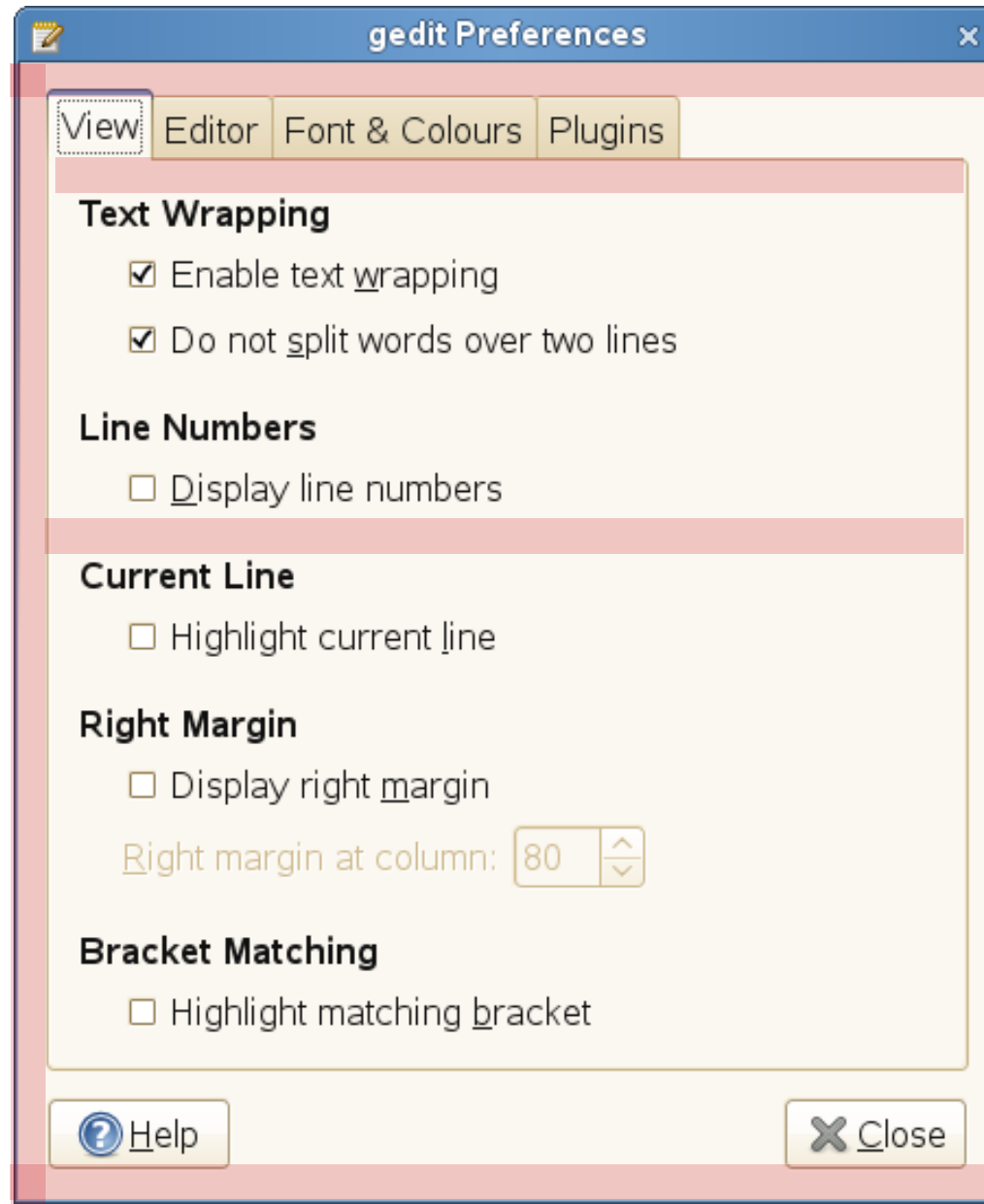




# Platform widgets ...

- 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.

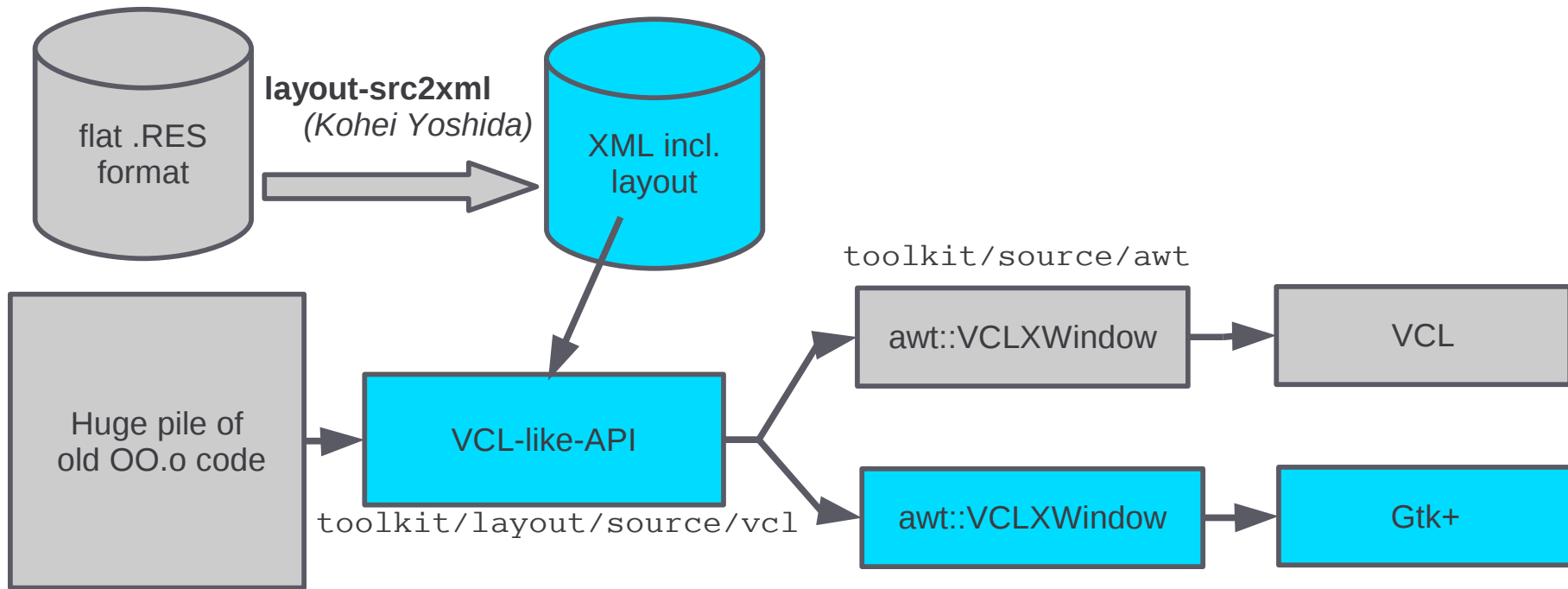
# HIG compliance ...



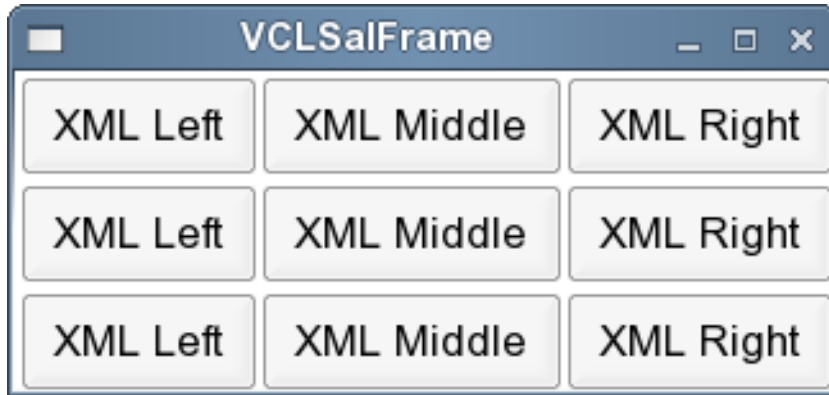
**A solution ...**

# An incremental solution ...

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

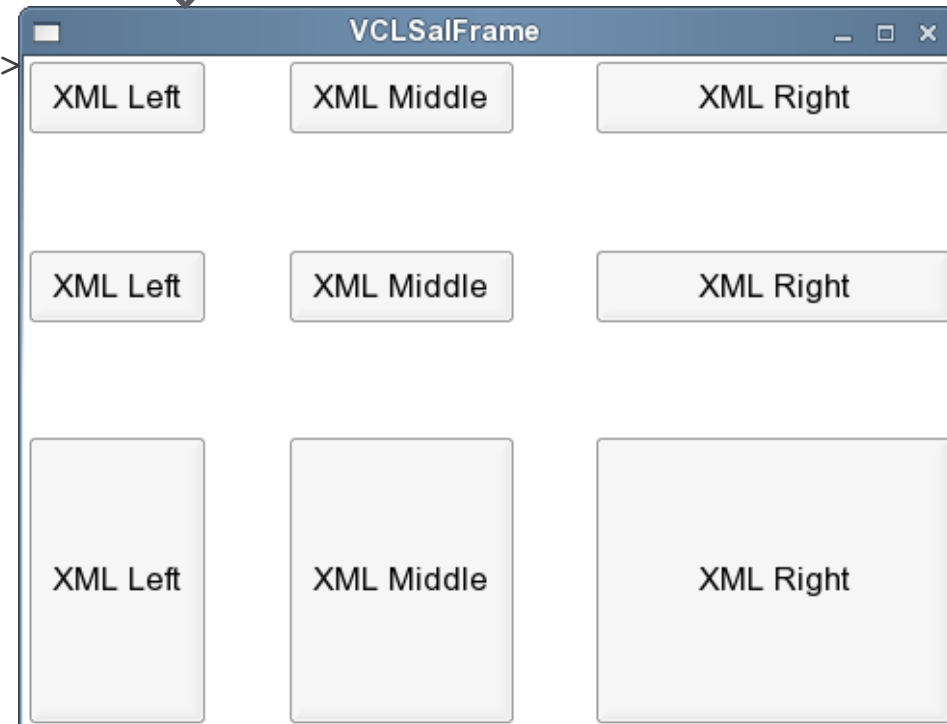


# A container base: the box ...



Re-sizing & re-layout ...

```
<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>
<hbox cnt:expand="true" cnt:fill="false">
  ...
<hbox cnt:expand="true" cnt:fill="true">
  ...
```



# 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

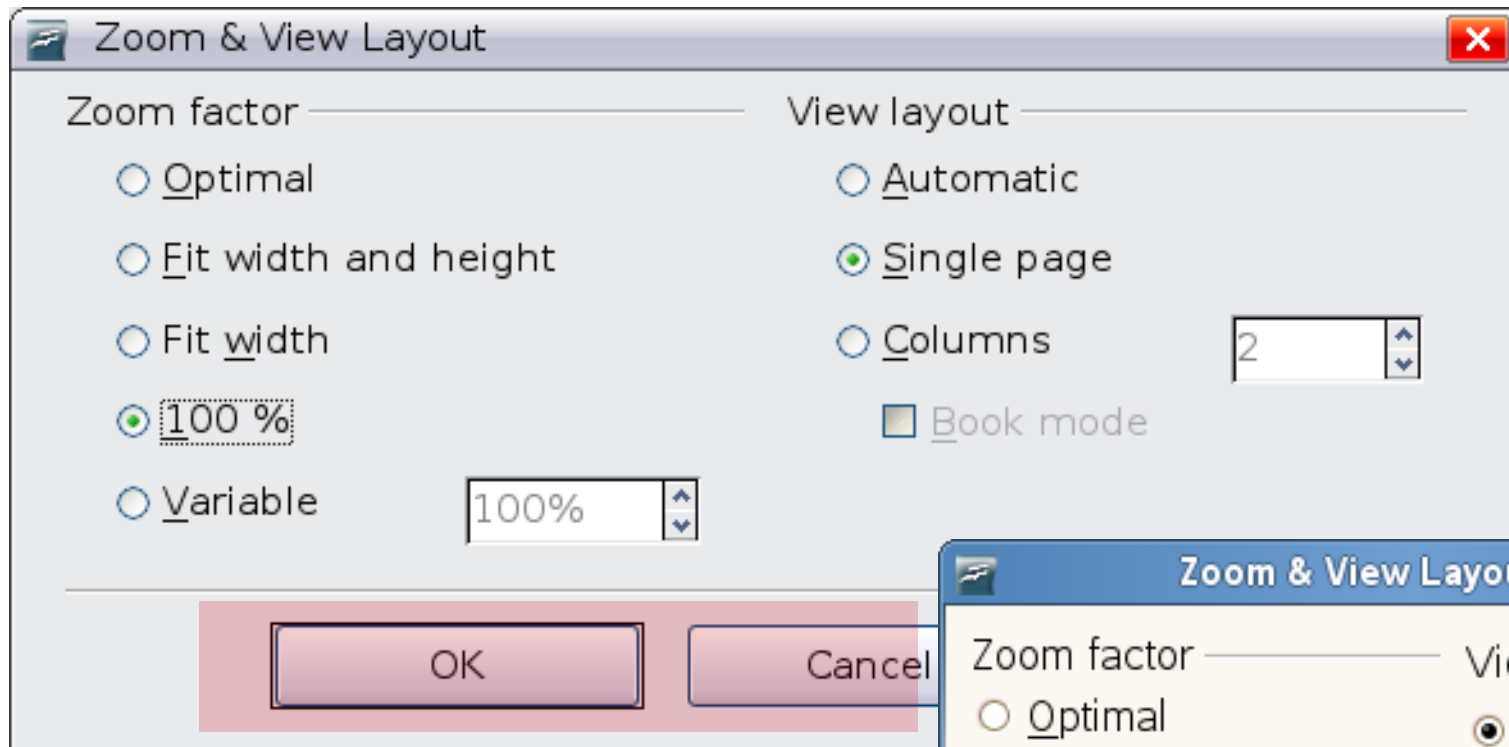
```
SvxZoomDialog::SvxZoomDialog( Window* pParent,
                               const SfxItemSet& rCoreSet ) :
-   SfxModalDialog( pParent, SVX_RES( RID_SVXDLG_ZOOM ) ),
+   Dialog( pParent, "zoom.xml", "dialog" ),

-   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" ),
...
```

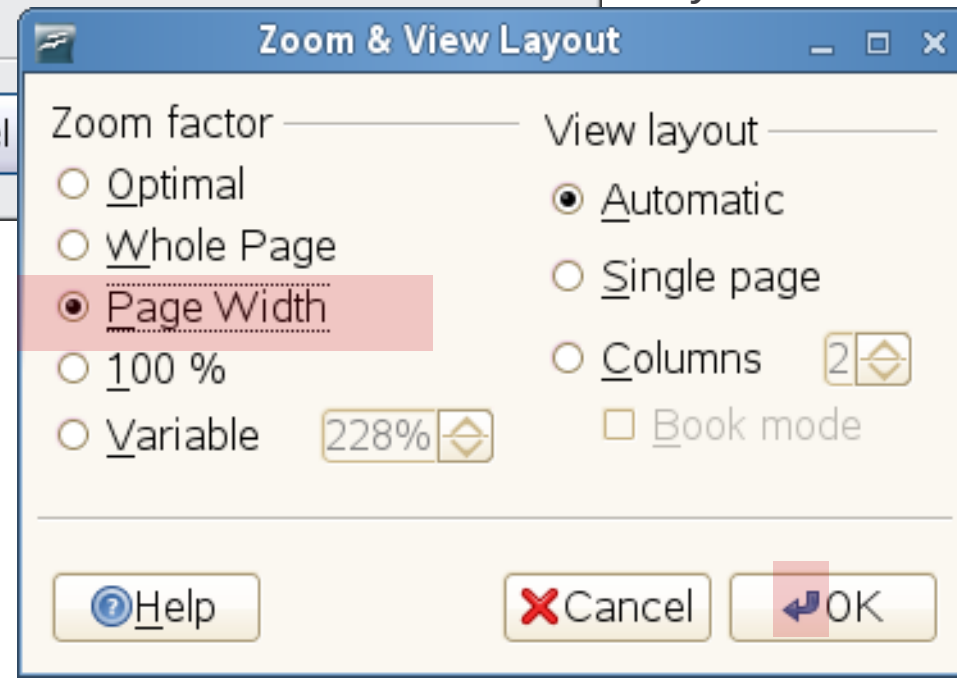
(Can be hugely shrunk by re-defining SVX\_RES as a 'stringifying' macro ... )



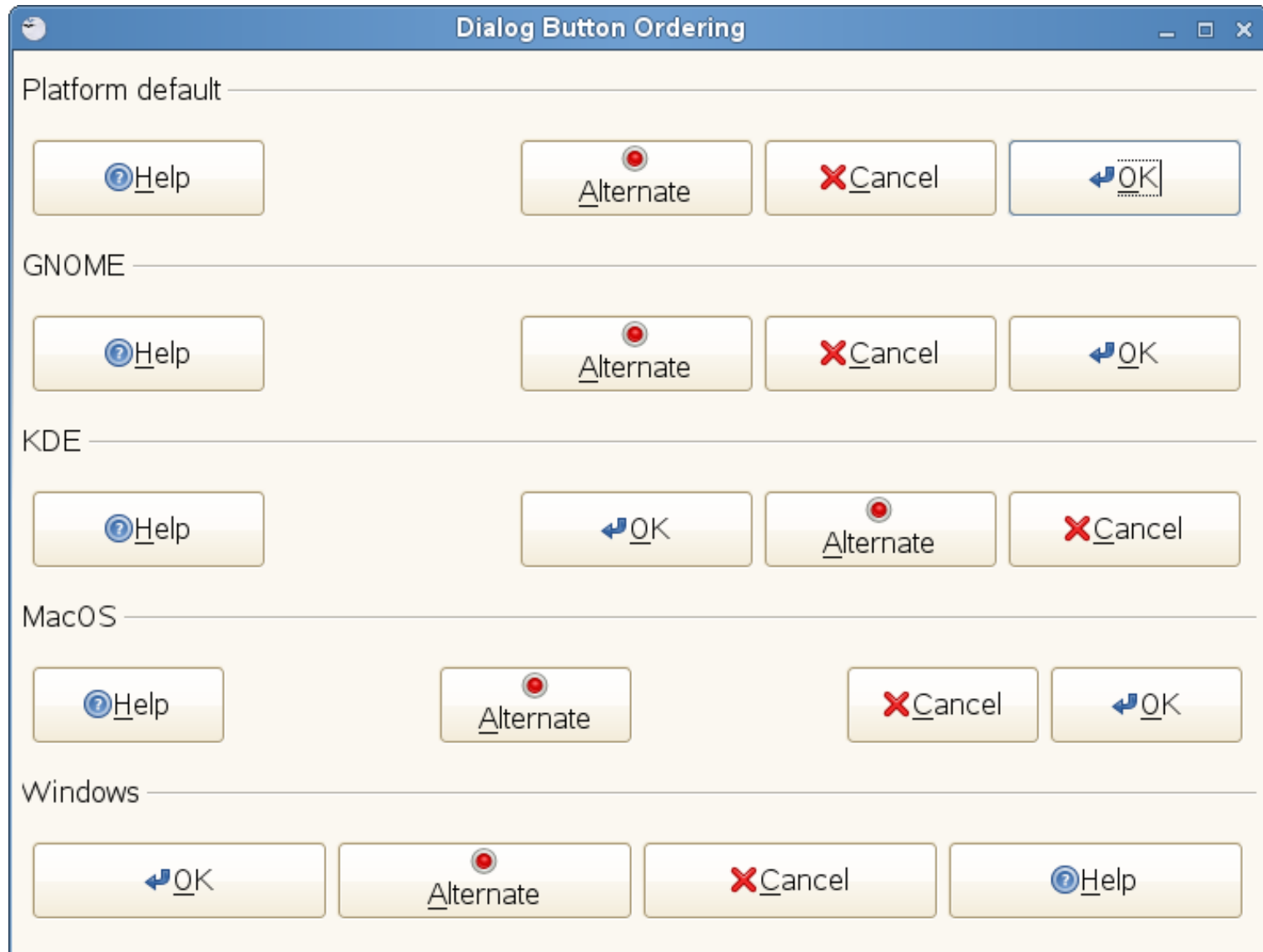
# The result ...



Slightly different font sadly



# Platform button ordering ...



**Demo ...**

# 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](mailto:janneke@gnu.org) with your patches
  - Or quizz us about it on [#go-oo](http://irc.freenode.net)
- 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*