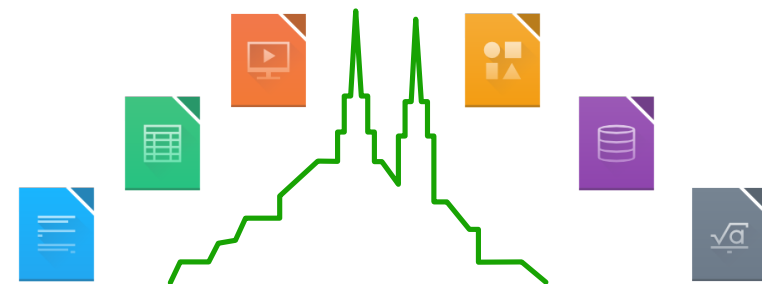


GSoC Panel 2016

- ▼ The LibreOffice GSoC season 2016 has concluded
Here's the results!



The 2016 project roster

- ▼ [Wastack](#) - Finish Firebird driver integration
- ▼ [\(AlexP11223](#) - Implement Zoner Draw import filter)
- ▼ [Azorpid](#) - Implementing legacy SAX parser Interface with FastParser
- ▼ [ubap](#) - Improve user experience with Table Styles
- ▼ [eszka](#) - Infrastructure for defining toolbars via .ui (Glade) files
- ▼ [Akshay Deep](#) - Redesigning the Template Manager and Emoji Toolbar Control
- ▼ [Jaskaran Veer Singh](#) - Support ODF styles in Calc using Orcus
- ▼ [susobhang70](#) - Review of Sidebar and it's functionality
- ▼ [autoit](#) - Unifying low-level text layout using HarfBuzz

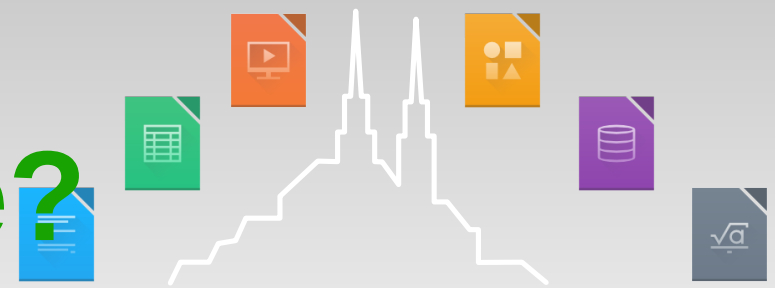
Finish Firebird Integration

Mentor: *Lionel Elie Mamane*

Tamás Bunth
IRC: *Wastack*

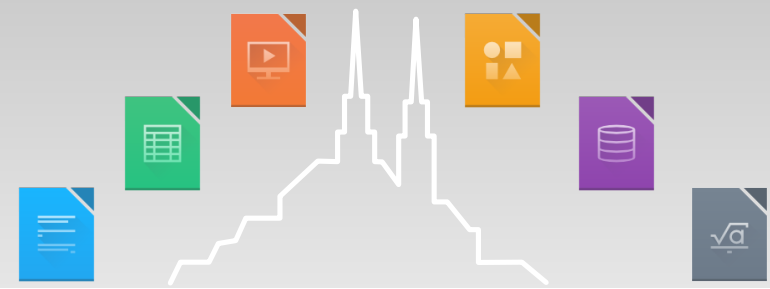


So what do we have?

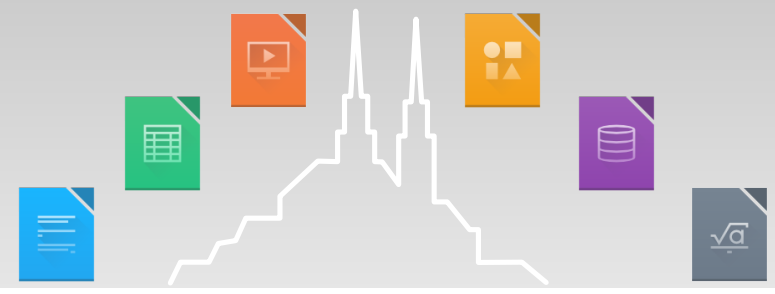


- ▼ Upgrade embedded Firebird to version 3.0
- ▼ Save Firebird backup format
- ▼ Fix Firebird related bugs

TODO



- ▼ Switch to c++ API
- ▼ Remote database
- ▼ Older versions?



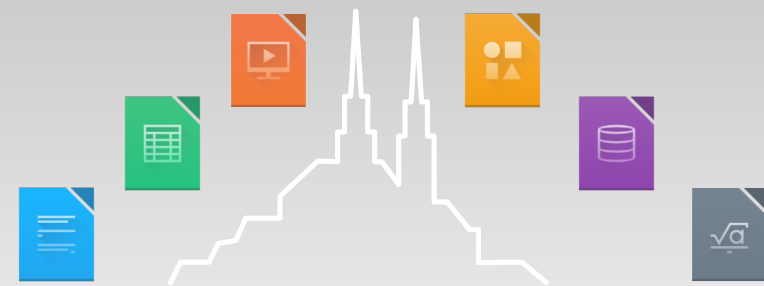
Thanks!





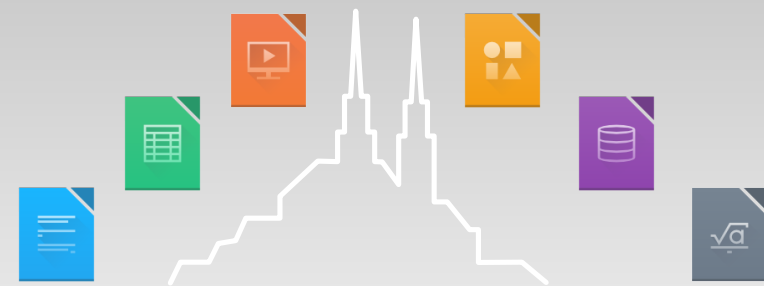
GSoC – Writer Table Styles

- ▼ My name: Jakub Trzebiatowski (ubap)
- ▼ My mentors:
 - ▼ Jan Holešovský
 - ▼ Yousuf Philips
 - ▼ Miklos Vajna



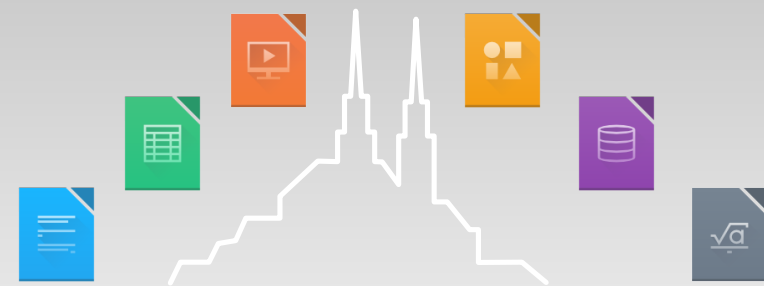
Google Summer of Code – Writer Table Styles

- ▼ The projects targets were to implement the following:
 - ▼ ODF Export and Import of Table Styles
 - ▼ Table Styles in the sidebar
 - ▼ Table Styles dropdown menu



ODF Export and Import of Table Styles

- ▼ The UNO API had to be implemented
- ▼ Table Styles are exported as a `<table:table-template>` element
- ▼ The following elements are exported as in ODF specs
 - ▼ background, body, even-columns, even-rows, first-column, first-row, last-column, last-row, odd-columns, odd-rows
 - ▼ Six extra properties exported in “loext” namespace
 - ▼ first-row-even-column, last-row-even-column, first-row-end-column, first-row-start-column, last-row-end-column, last-row-start-column



ODF Export and Import of Table Styles

```
<table:table-template table:name="Test style" table:first-row-end-column="column" table:first-row-start-column="column" table:last-row-end-column="column" table:last-row-start-column="column">  
  <table:first-row table:style-name="Test_20_style.1"/>  
  <table:last-row table:style-name="Test_20_style.2"/>  
  <table:first-column table:style-name="Test_20_style.3"/>  
  <table:last-column table:style-name="Test_20_style.4"/>  
  <table:body table:style-name="Test_20_style.9"/>  
  <table:even-rows table:style-name="Test_20_style.5"/>  
  <table:odd-rows table:style-name="Test_20_style.6"/>  
  <table:even-columns table:style-name="Test_20_style.7"/>  
  <table:odd-columns table:style-name="Test_20_style.8"/>  
  <table:background table:style-name="Test_20_style.10"/>  
  <loext:first-row-even-column table:style-name="Test_20_style.15"/>  
  <loext:last-row-even-column table:style-name="Test_20_style.16"/>  
  <loext:first-row-end-column table:style-name="Test_20_style.12"/>  
  <loext:first-row-start-column table:style-name="Test_20_style.11"/>  
  <loext:last-row-end-column table:style-name="Test_20_style.14"/>  
  <loext:last-row-start-column table:style-name="Test_20_style.13"/>  
</table:table-template>
```

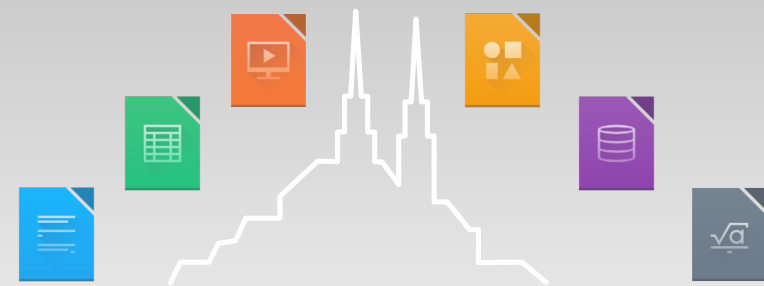


Table Styles in the Styles and Formatting sidebar

- ▼ The sidebar is implemented but not yet fully finished
- ▼ Allows to:
 - ▼ Browse the styles and filter applied styles
 - ▼ Apply a style
 - ▼ Update a style
 - ▼ Hide a Style
- ▼ Currently applied style is highlighted

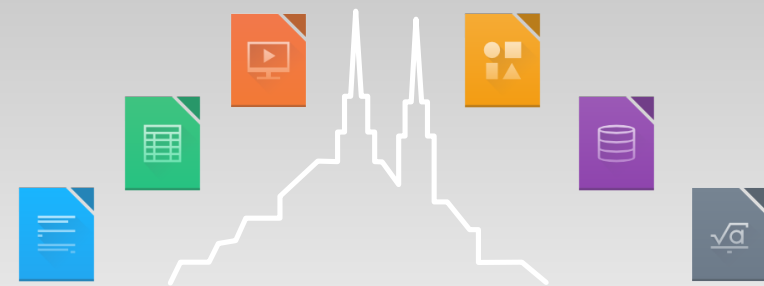
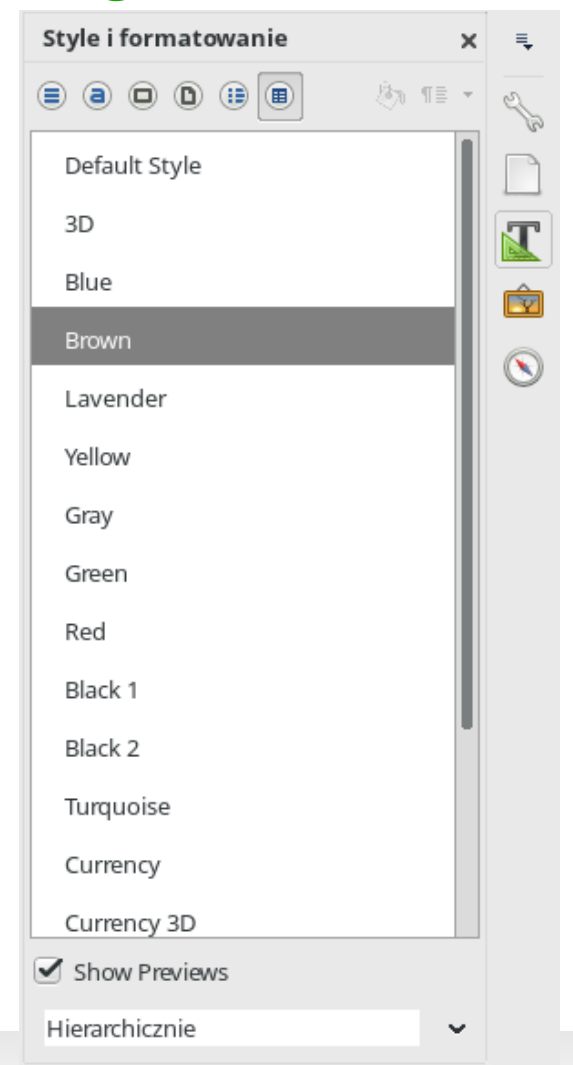


Table Styles in the Styles and Formatting sidebar

- ▼ The dialog to edit properties of a Table Style is missing

Table Styles dropdown menu

- ▼ The dropdown menu is still not implemented





Infrastructure for defining toolbars via .ui (Glade) files

- ▼ Szymon Kłos (eszka)
- ▼ Mentors:
 - ▼ Jan Holešovský
 - ▼ Samuel Mehrbrodt



Google Summer of Code 2016

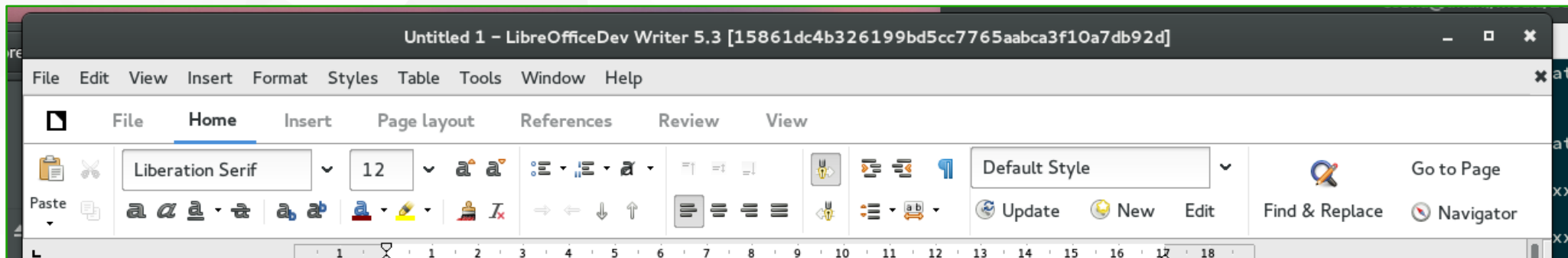
Introduction

- ▼ Currently available: classic toolbars and sidebar
- ▼ New implementation mocups

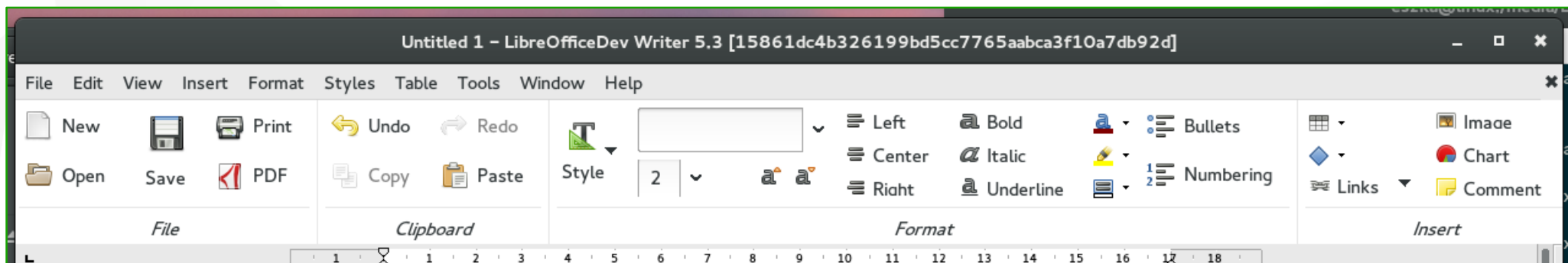
Goals

- ▼ Rich and dynamic layout of toolbars
- ▼ UI easy to modify using graphical tool – Glade (no coding needed)
- ▼ Switching between classic and new mode
- ▼ Content depending on the context
- ▼ Layout according to screen/window size

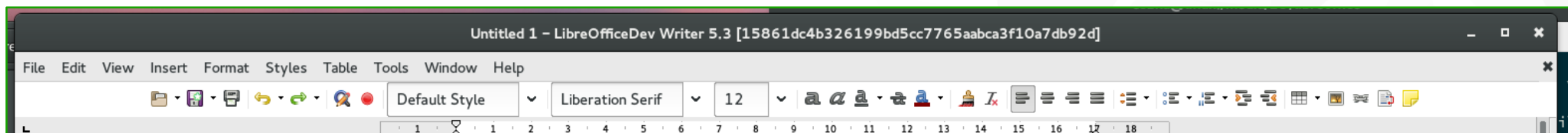
Results



Tabbed



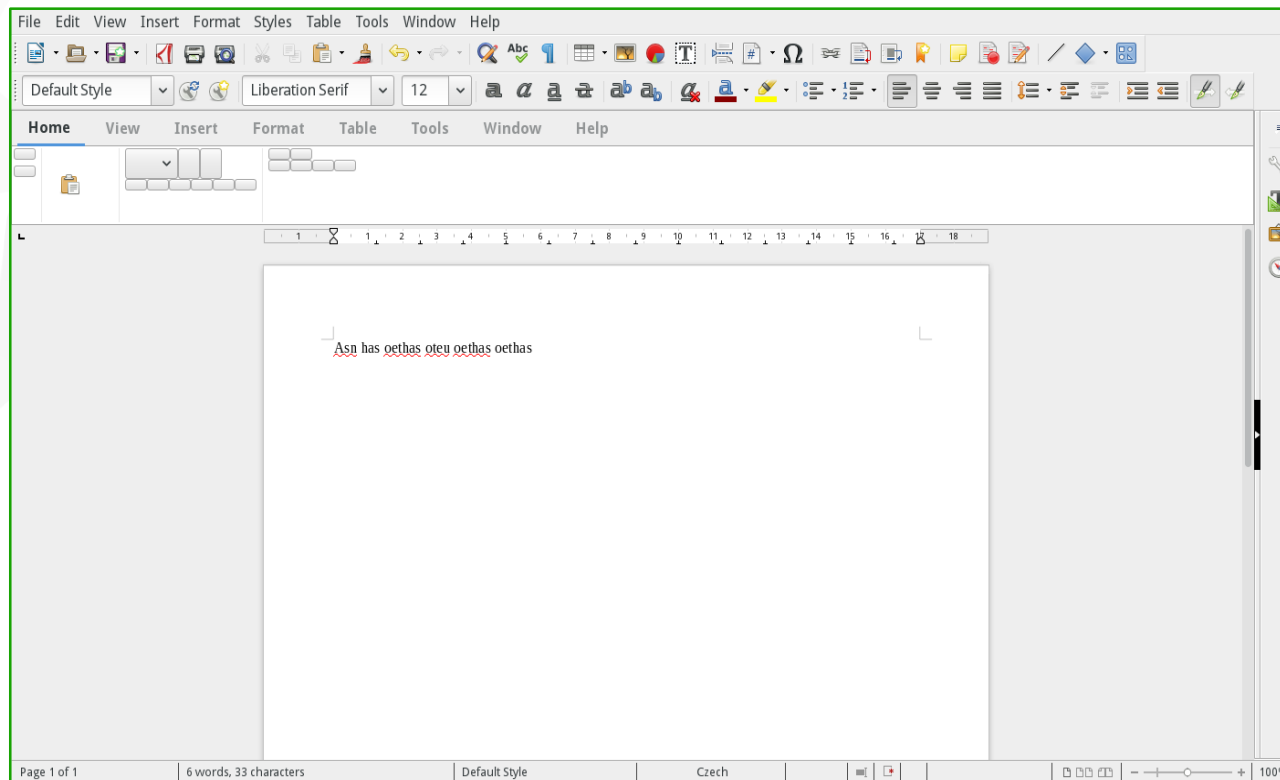
Contextual groups (Heiko's concept)



Contextual single toolbar

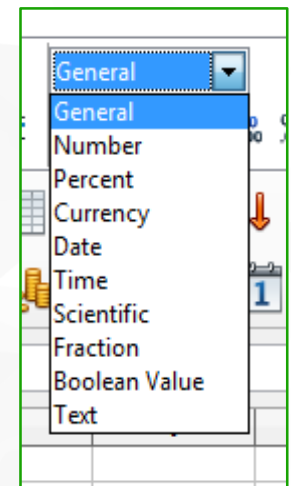
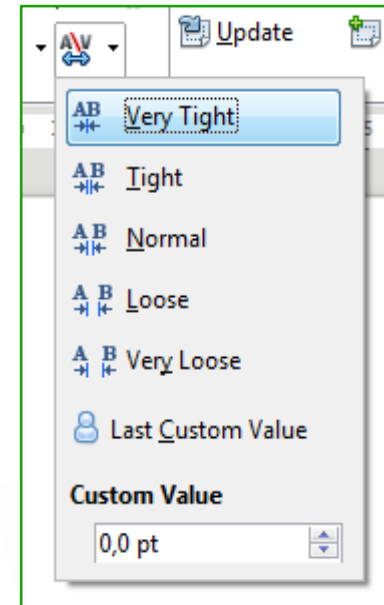
First steps

- ▼ Notebookbar as a child window – below toolbars...
- ▼ Loading different .ui files in each module
- ▼ Sfx2 slot mechanism `.uno:Notebookar`



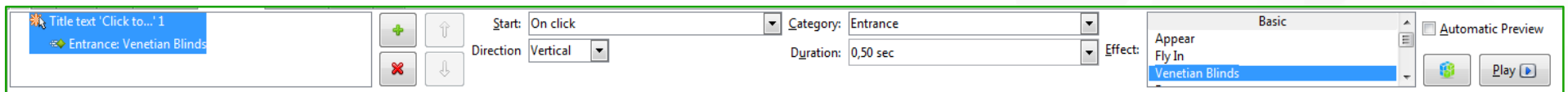
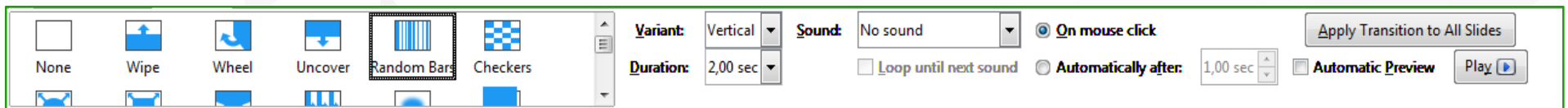
Popup conversions

- ▼ Some popups were able to work only in the sidebar
- ▼ It was needed to create controllers for them and register in the modules
- ▼ After conversion they can be used in toolbars, Notebookbar and other places
- ▼ Examples: underline, character spacing, number format popups



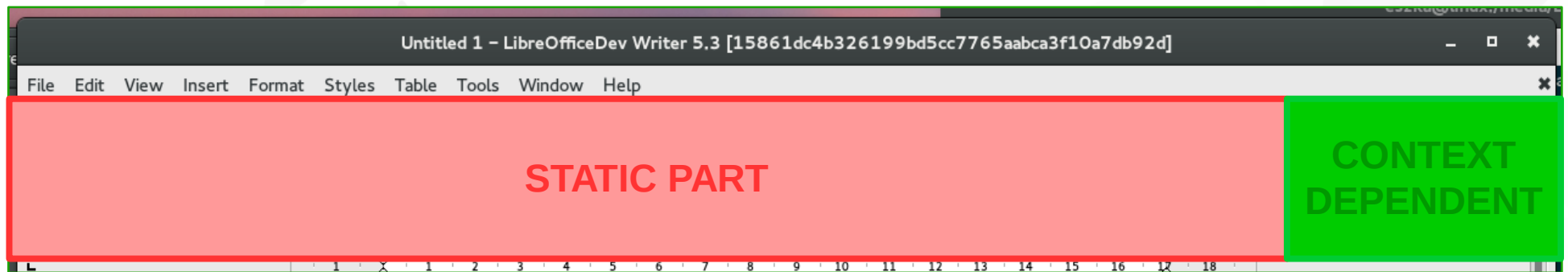
Horizontal panels for Impress

- ▶ Important Impress features are animations and slide transitions and should be accessible from Notebookbar
- ▶ Reused sidebar panels as single horizontal widgets



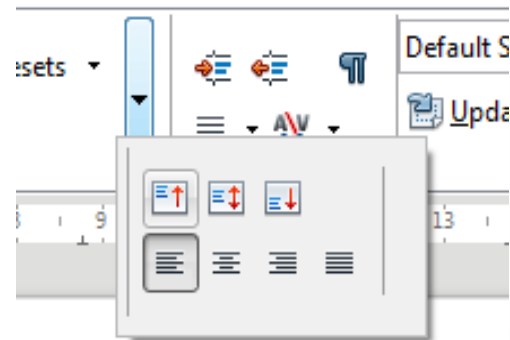
Context handling

- ▶ New toolbar implementation should provide context dependent content
- ▶ Marks in the .ui files e.g.: context-Table, context-any
- ▶ Tabbed implementation shows additional tabs when user pointed table or picture
- ▶ Heiko's concept contains static part and group which is replaced in some contexts



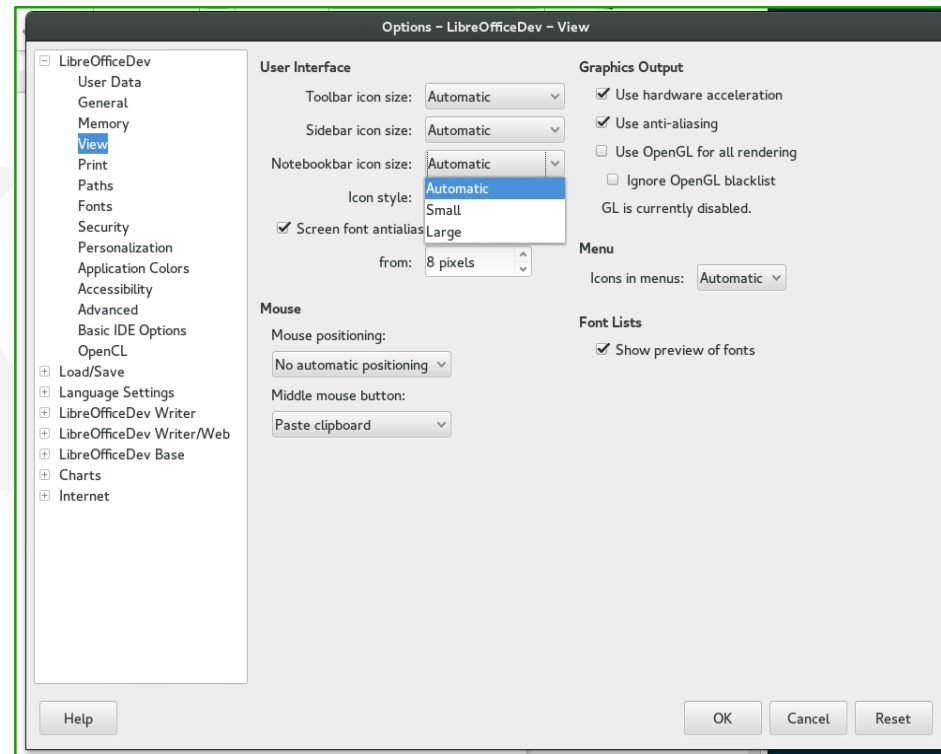
Priorities for widgets

- ▼ Mechanism providing access to all buttons when window is too small to show whole content
- ▼ Widgets can have assigned priorities
- ▼ Groups are collapsed, small arrow is showed instead
- ▼ Content in the popup



Icon size customization

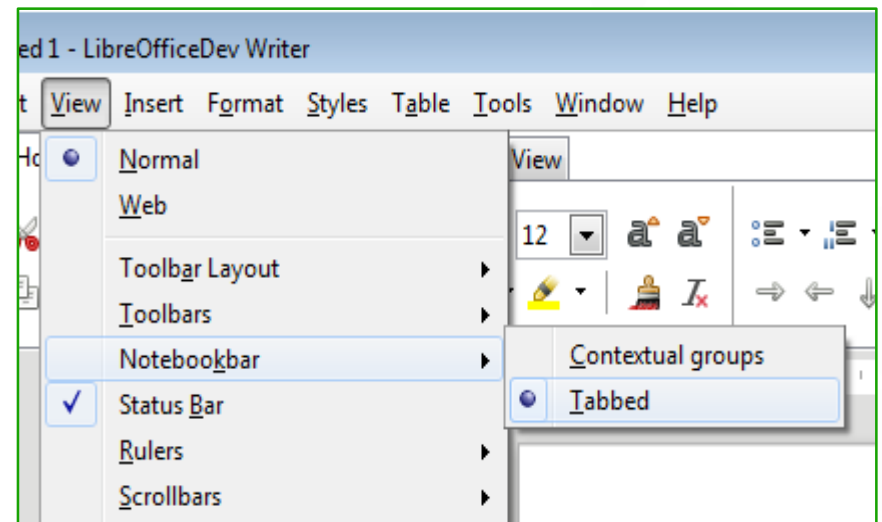
- ▼ I added possibility to change icon size in the Notebookbar and also Sidebar
- ▼ That feature is available in the Options
- ▼ From menubar: Tools > Options > View



Multiple implementations

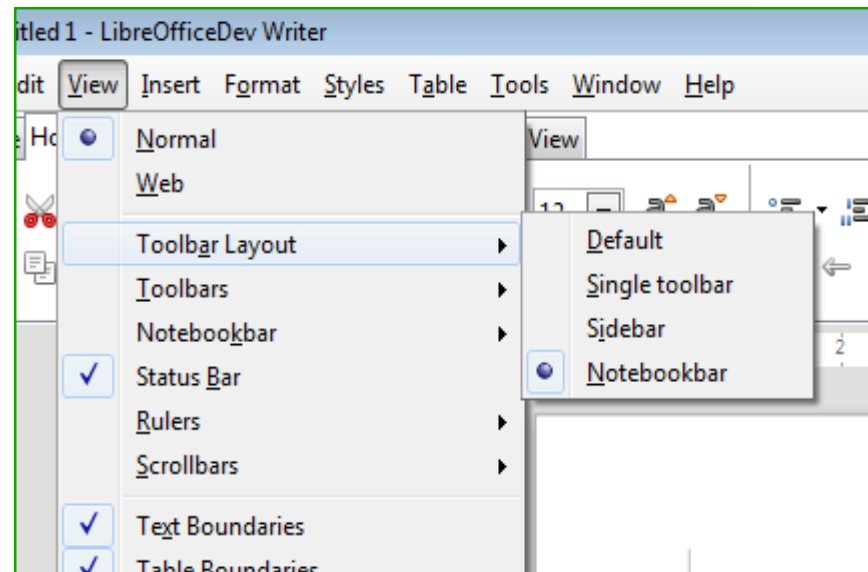
- ▼ We had a lot of concepts
- ▼ Changing the implementation requires just a reload of another .ui file
- ▼ Added switch in the menubar
- ▼ New implementations can be added in the `officecfg/registry/data/org/openoffice/Office/UI/Notebookbar.xcu`

```
<node oor:name="Tabbed" oor:op="replace">
  <prop oor:name="Label">
    <value xml:lang="en-US">Tabbed</value>
  </prop>
  <prop oor:name="File">
    <value>notebookbar_tabbed.ui</value>
  </prop>
  <prop oor:name="HasMenubar">
    <value>true</value>
  </prop>
</node>
```



Toolbar modes

- ▼ Option to switch between Notebookbar and classic toolbars was needed
- ▼ We had the single toolbar but haven't any option for easy activation
- ▼ Added entry in the menubar to choose the toolbar mode
- ▼ Entries in the officecfg (.xcu)
- ▼ Separate modes for each module



What's next?

Customization

- ▼ Description in the XML files
- ▼ Transformation to .ui files ?
- ▼ Possibility to modify by user

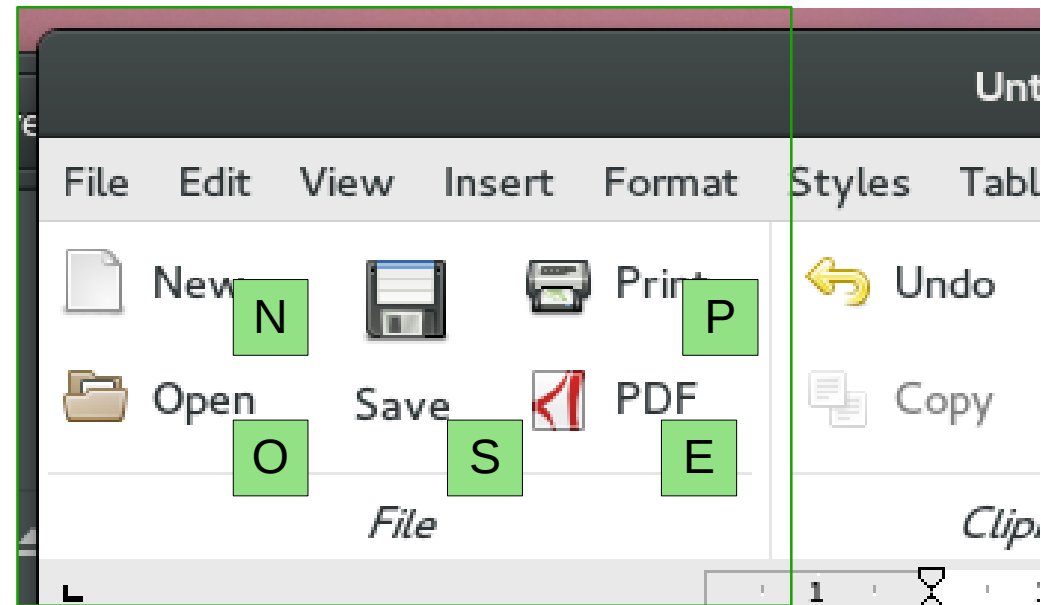
```
<bar:tab id="tHome" text="Home">  
  <bar:group id="gClipboard" text="Clipboard">  
    <bar:item href=".uno:Paste" size="big"/>  
    <bar:grid>  
      <bar:row>  
        <bar:item href=".uno:Cut" size="tiny"/>  
      </bar:row>  
      <bar:row>  
        <bar:item href=".uno:Copy" size="tiny"/>  
      </bar:row>  
    </bar:grid>  
  </bar:group>  
  <bar:separator/>  
</bar:tab>
```

Extensions support

- ▼ Extension developers should be able to add own content to the existing implementations
- ▼ and/or create own implementation

Shortcuts

- ▼ Important feature for keyboard users
- ▼ Showing the key map ?





Thank you ...



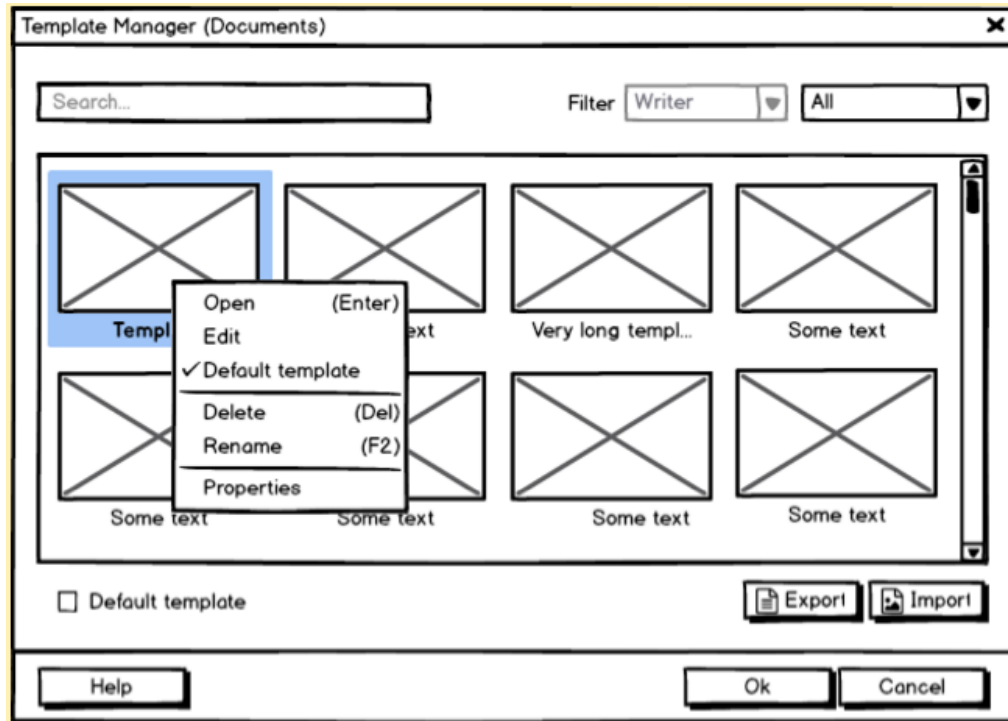
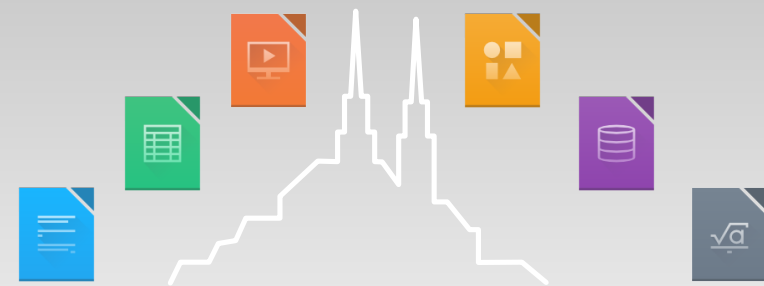
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Redesigning the Template Manager

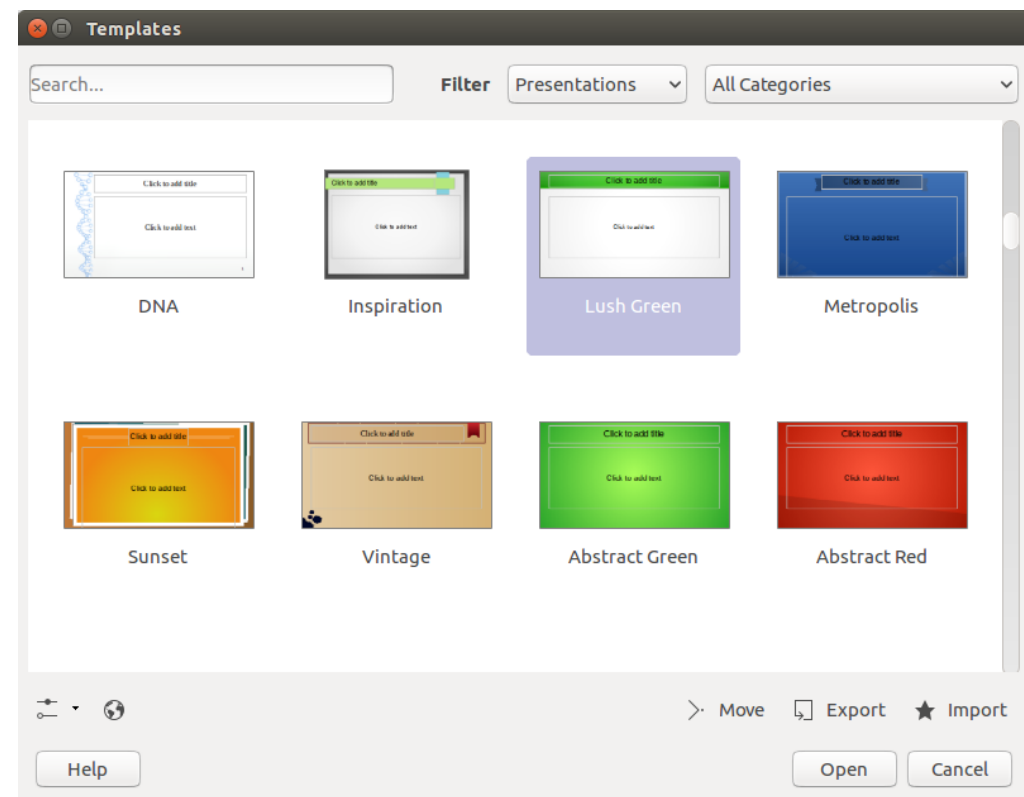
- ▼ Akshay Deep
- ▼ Mentors:
 - ▼ Samuel Mehrbrodt
 - ▼ Yousuf Philips

New UX

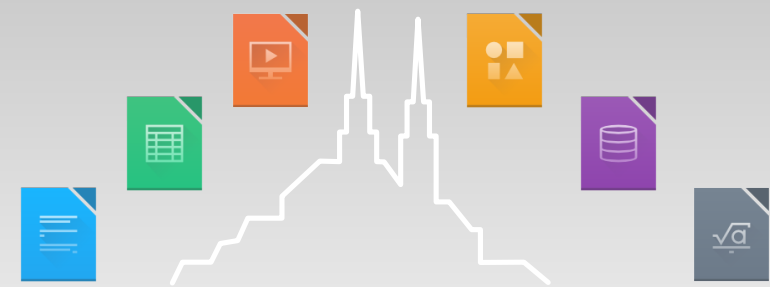


DESIGN IDEA

FINAL IMPLEMENTATION

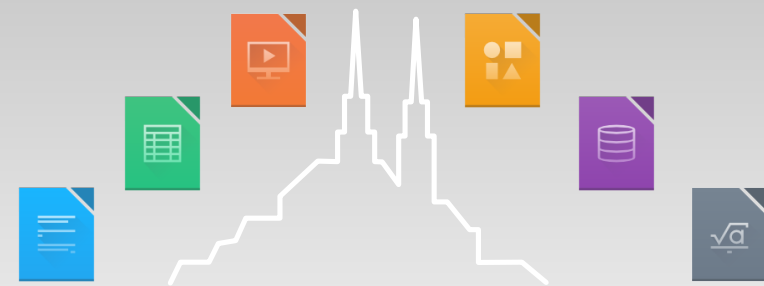


Modifications:



- ▼ All Templates view replacing the previous Folder view
- ▼ Search, Application and Category filters replacing Tab design
- ▼ Removal of Save as Template mode
- ▼ Inbuilt category selection dialog
- ▼ Most functionalities shifted to context-menu
- ▼ Marking of default templates for each application
- ▼ Removal of remote files view
- ▼ Save as Template dialog
- ▼ Option to edit a template not in repository
- ▼ Several other bug fixes

Modifications:

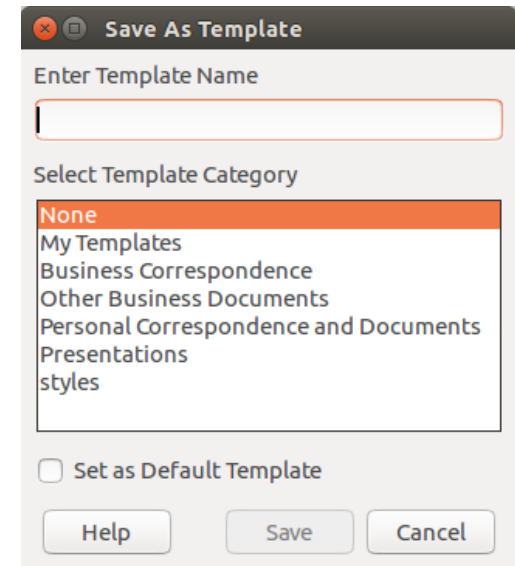


- ▼ New 'Selected + Hover' state in thumbnail view
 - ▼ How to try it? Just select a template. Now hover over a selected template and an unselected template to see the difference

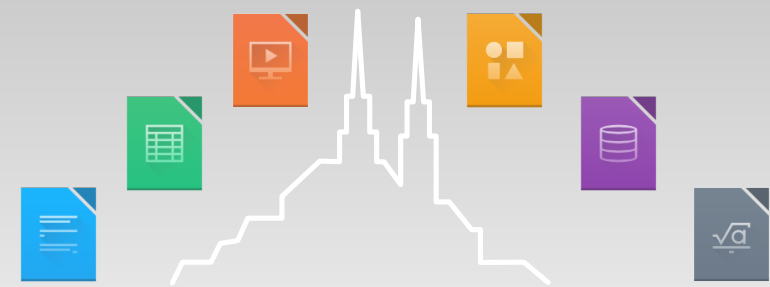


- ▼ Save as Template

- ▼ Bug 95402 Improve Save as Template work flow
- ▼ Separated this functionality from template manager
- ▼ Modal dialog with category selection and template naming options
- ▼ Bug 94131 Option to set as default



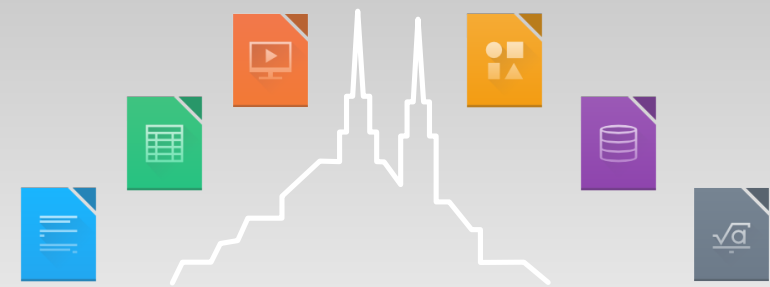
Start Center



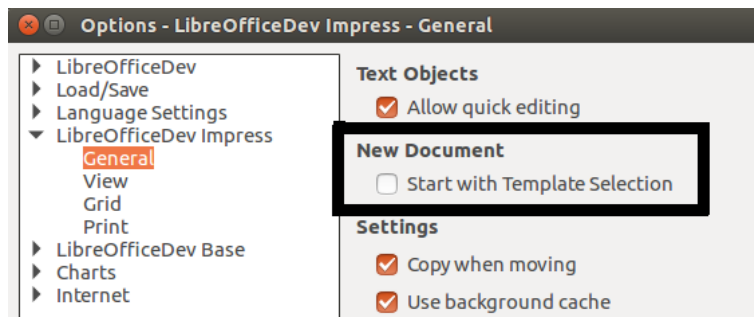
- ▶ All Templates view in Start Center with application filter
- ▶ Context menu for templates in start center
- ▶ Toggle buttons to denote selected template view



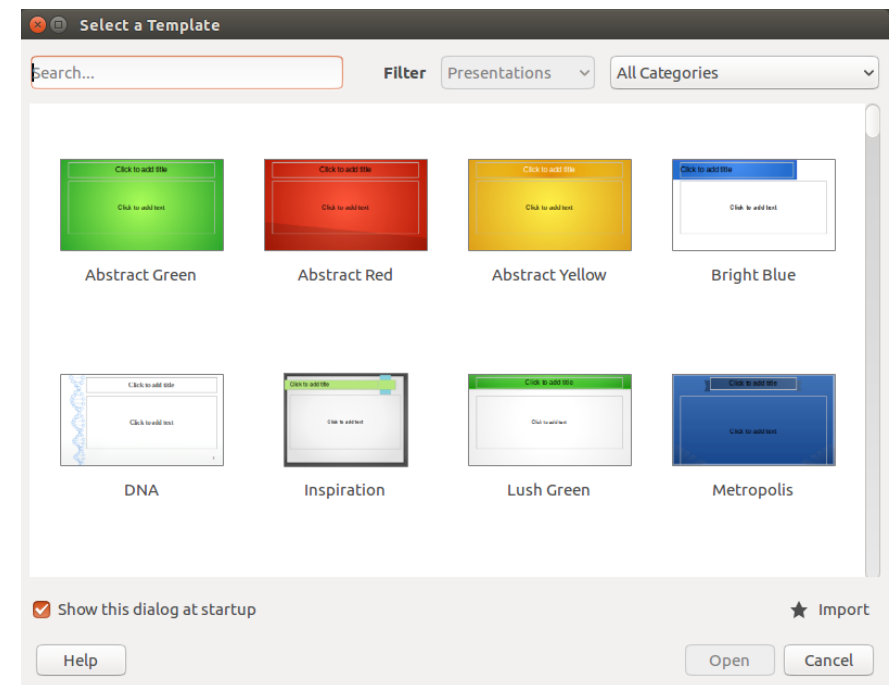
Impress Selection



- Tools > Options > LibreOffice Impress > General > Start with Template Selection



- Enable users to select a template when Impress starts
- Easy means to disable the dialog on Impress startup
- Dialog is Enabled by default



Impress Template dialog

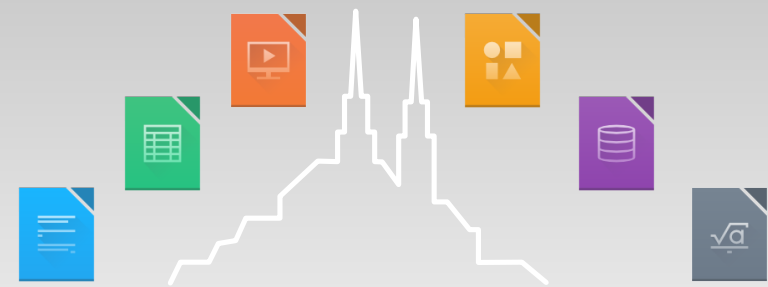


LibreOffice®

Emoji Toolbar Control 😎

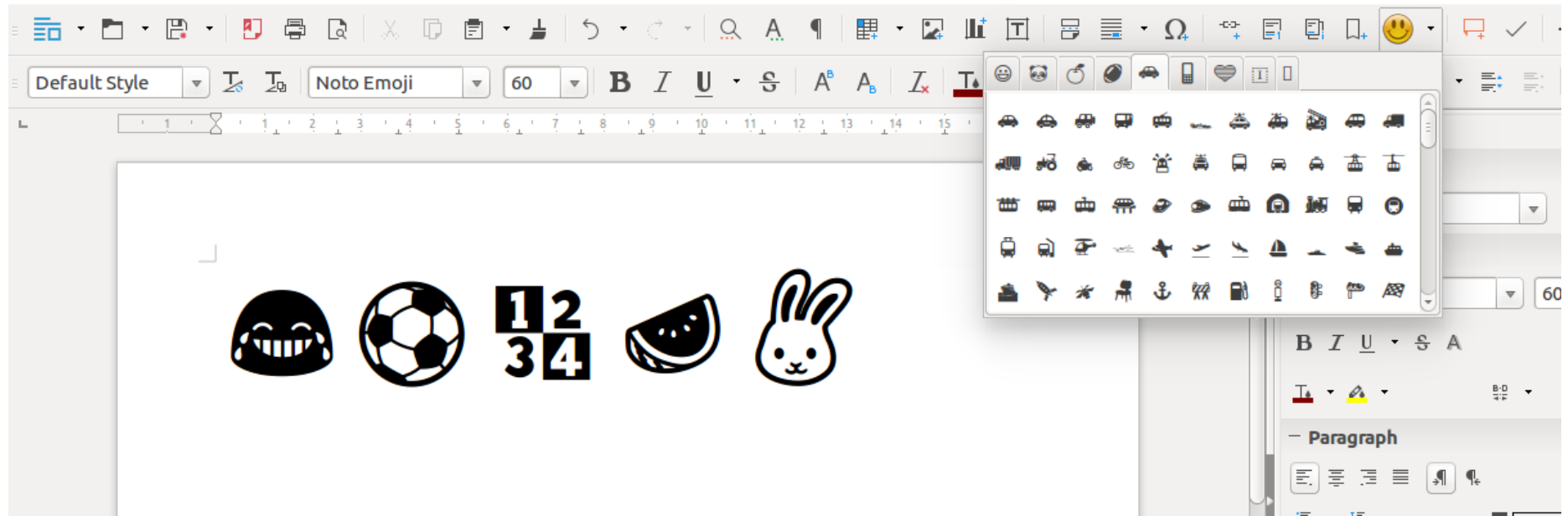
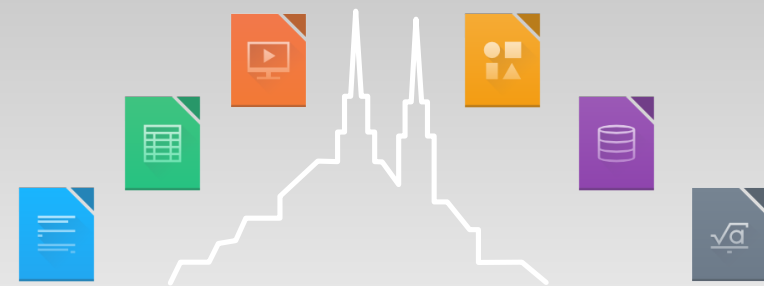
- ▼ Akshay Deep
- ▼ Mentors:
 - ▼ Samuel Mehrbrodt
 - ▼ Yousuf Philips

Enhancement



- ▼ New control, developed from scratch using emoji unicode database
- ▼ Control available in Writer, Impress and Calc, accessible via Standard Bar
- ▼ Free to use any sort of widgets to facilitate the purpose
- ▼ Use of tabs to filter emojis based on categories
- ▼ Emojis appear as a grid
- ▼ Easy insertion, unlike special character control which uses a modal dialog as of version 5.2
- ▼ Font support (Removal of tofu char)

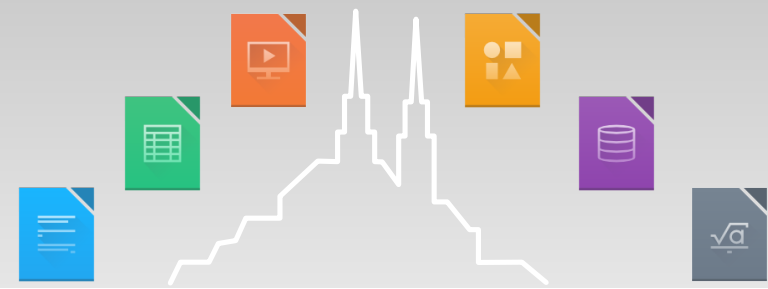
How it looks now



- ▶ Font dependent control i.e. not all fonts support them
- ▶ Unlike svg or png emoji, these emoji are glyphs of a particular unicode sequence

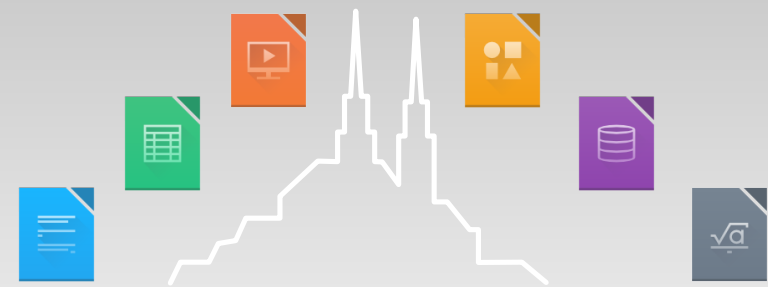


Further Enhancements



- ▼ The foundation for this enhancement has been built now. Further improvements have been proposed like:
 - ▼ Filtering of unsupported glyphs
 - ▼ Removal of duplicate glyphs (multicolor emoji are treated as duplicate glyph) as multicolor glyphs are not supported by any font
 - ▼ support for svg emoji, etc.
- ▼ For further insights, refer to:
 - ▼ <https://akkidevblog.wordpress.com/2016/07/23/redesigning-the-template-manager/>
 - ▼ <https://akkidevblog.wordpress.com/2016/08/19/emoji-toolbar-control/>

Miscellaneous Tasks



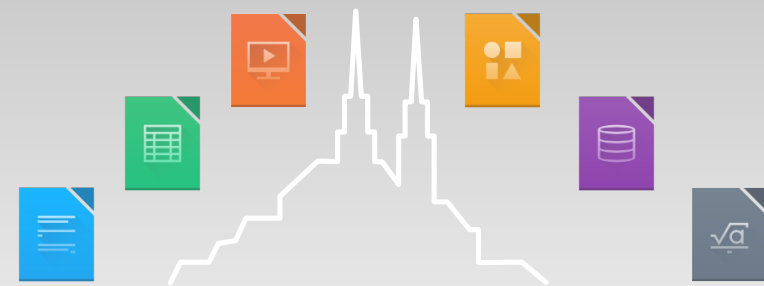
- ▼ Goto Page Dialog for LibreOffice 5.3
- ▼ Online Templates View [abandoned due to lack of server framework]
- ▼ Creation of Active Menu Button
- ▼ Bug 75369 Non-installed applications aren't greyed out
- ▼ Bug 87697 Indicate selected thumbnail view
- ▼ Bug 90577 Accessibility for clearing Recent Docs
- ▼ Bug 79889 Recent docs consistent with recent items list in File > Recent Documents
- ▼ Bug 79198 Close button doesn't reappear after being clicked
and so on...



Import Cell Styles into Calc using Orcus

- ▼ By Jaskaran Veer Singh
- ▼ Google Summer of Code 2016

What are Cell Styles ?



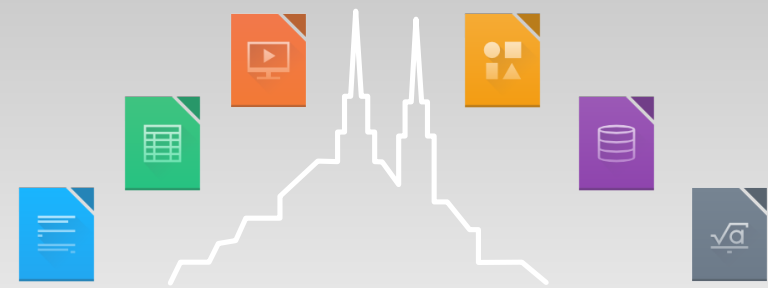
Cell Styles = A set of Attributes

Example :

	\$1,000.00	



What is Orcus ?



- ▼ Standalone Filter Library
- ▼ Written in C++
- ▼ Multi-Threaded
- ▼ Started out as a Kohei Yoshida's project.
- ▼ Now has 4-5 active and semi-active contributors
- ▼ Hosted on GITLAB



Features of Orcus

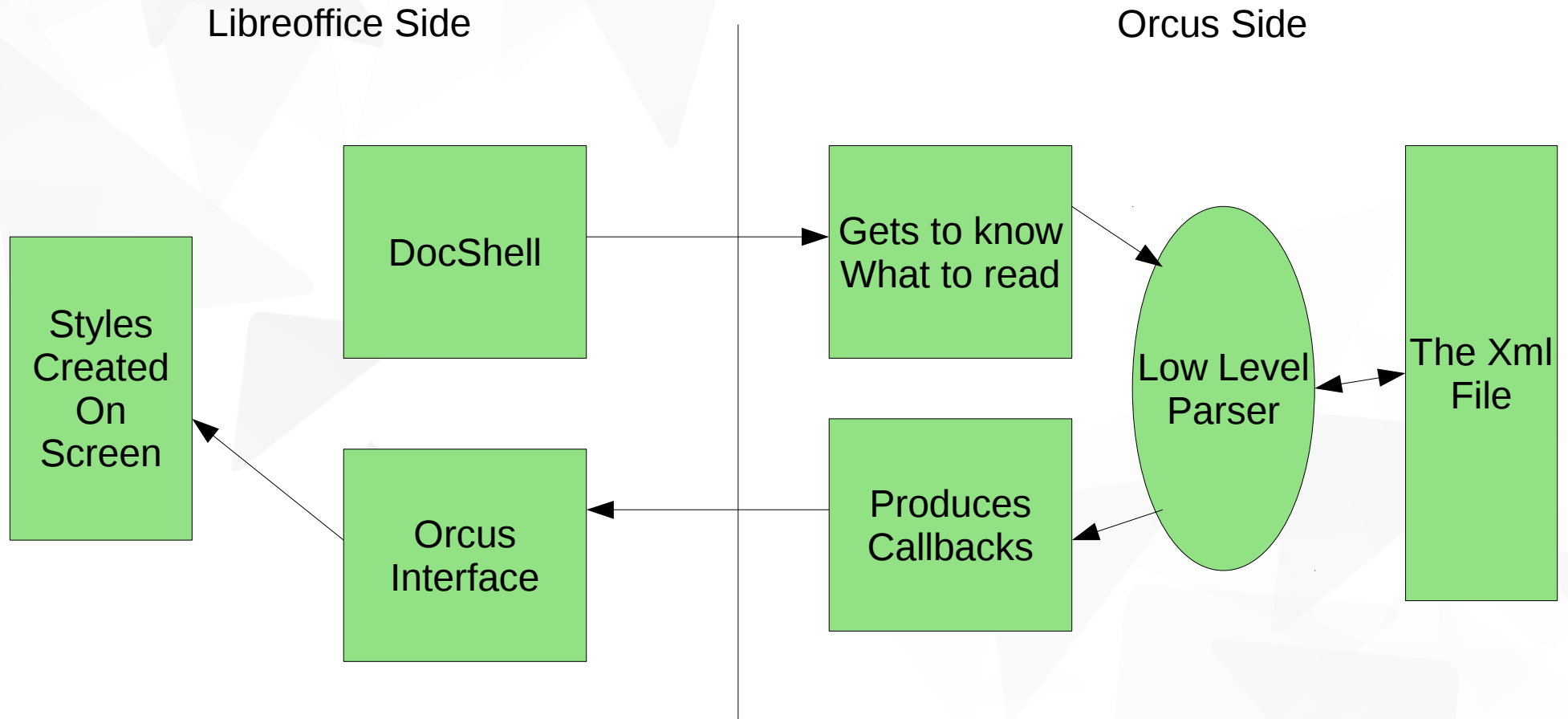
Import Filters

- Open Document Spreadsheet
- OOXML
- XLS
- Plain Text
- Generic XML
- Gnumeric XML

Parsers

- CSV
- YAML
- XML
- JSON
- CSS

Working of Styles import



Reasons for Using Orcus

- UNO is slow with all its bells and whistles.
- UNO's code for importing styles isn't very reusable.
- Orcus is Time and Memory Efficient because of its modern design and data structures.

What's in store for you

- Predefined styles means Less Clicks, Less Annoyance.
- Calc would now ship with beautiful predefined set of Styles made by our UI/UX team.
- Best Part : Define your own styles !

An example :

<u>Name</u>	<u>Job</u>	<u>Pay</u>
John	Coder	\$5,000.00
Jerry	Janitor	\$5,000.00
Joey	Manager	\$5,000.00

Location of styles.xml

```
/Path/to/installation/share/calc/styles.xml
```

Attributes that we import

- Font
- Fill
- Cell Protection
- Number Format
- Alignment
- Borders
- Underline, Strikeout

Attributes that we currently don't import

- Conditional format
- Various properties of Alignment
- Various trivial attributes

What we want from you

- Hold on to your seats till this functionality is available.
- Use this as much as you want when it's available
- Report bugs to us on bugzilla.
- Report if you want any attribute to be imported which currently isn't.
- Contribute to Calc and Orcus ;-)

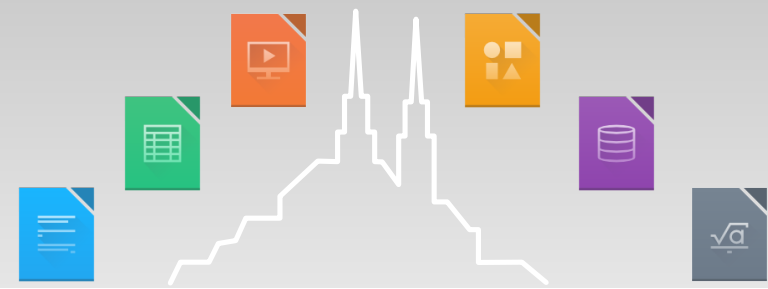


Review of Sidebar and it's functionality

Mentors: bubli, jphilipz

Susobhan Ghosh
Google Summer of Code 2016

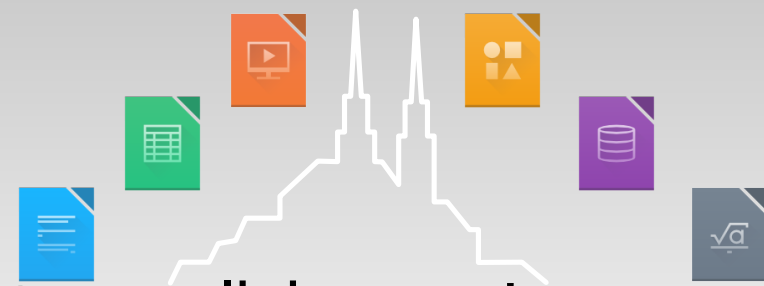
Introduction



- ▼ Junior Year – Computer Science and Engineering Student – International Institute of Information Technology, Hyderabad (IIIT-H), India
- ▼ A big thank you bubli and jphilipz for guiding me throughout and putting up with me. Also thank you to the design team and dev channel members
- ▼ Thanks to the community for organizing the conference and providing this opportunity to present my work
- ▼ No code, just screenshots! Detailed info at my blog – <https://susobhang70.github.io>



tdf#83830: Page Deck for Writer



Most used Writer Properties – just one click away!

Page [x]

– **Format** [≡]

Size: A4 [v]

Width: 8.27" [↑][↓]

Height: 11.69" [↑][↓]

Orientation: Portrait [v]

Margins: Normal 0.75" [v]

– **Styles** [≡]

Number: 1, 2, 3, ... [v]

Background: None [v]

Layout: Right and left [v]

Columns: 1 Column [v]

– **Header** [≡]

Margins: None [v]

Spacing: None [v]

Same Content: All Pages [v]

– **Footer** [≡]

Margins: None [v]

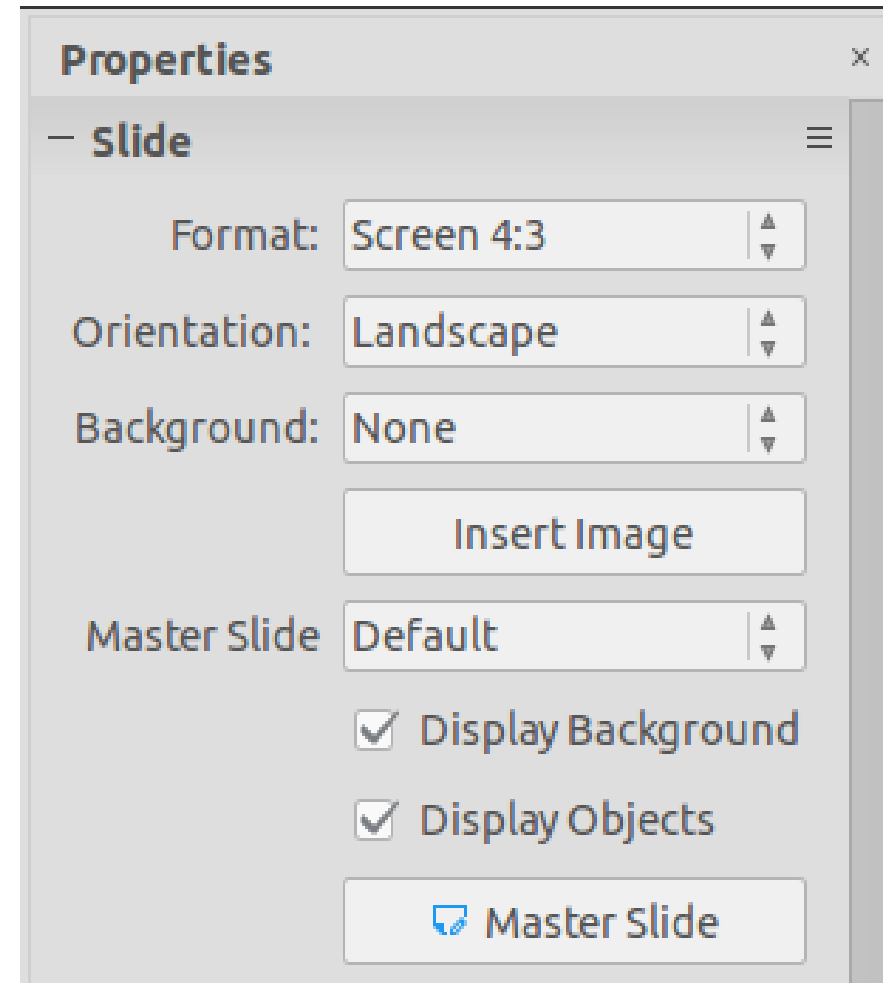
Spacing: None [v]

Same Content: All Pages [v]

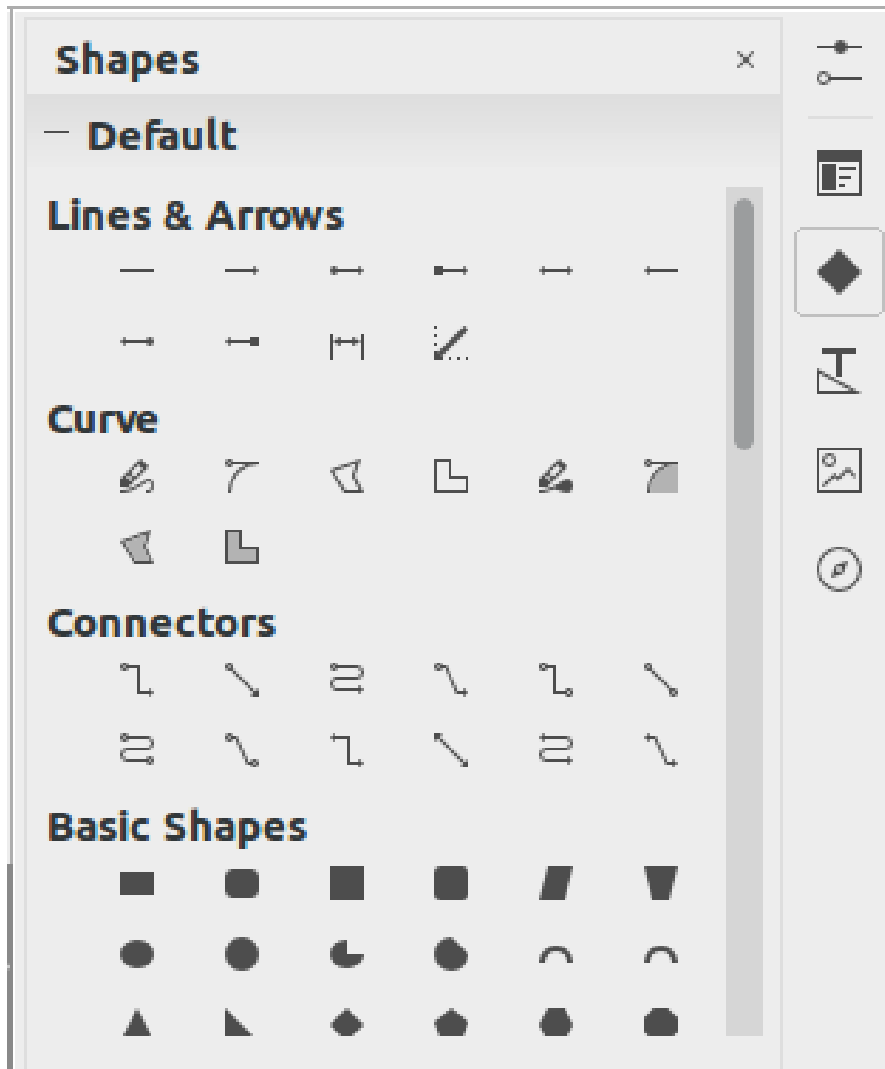
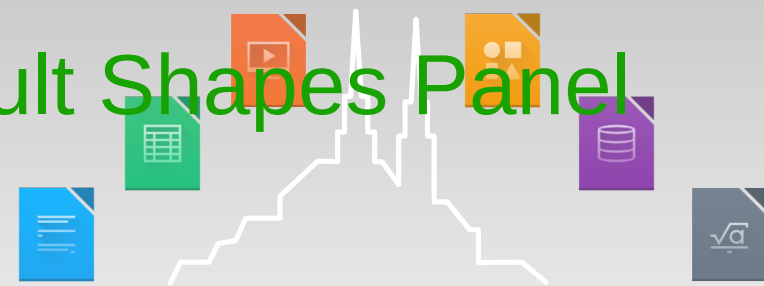


tdf#89466: Properties Panel for Impress/Draw

- ▼ Panel developed by bubli, jphilipz and Rishabh (merged this May) – I mainly worked on bugs and improvements
- ▼ Added Master Slide Button, Close Master View Button
- ▼ Enabled same panel for Draw



tdf#87643: Shapes Deck & Default Shapes Panel (Draw)



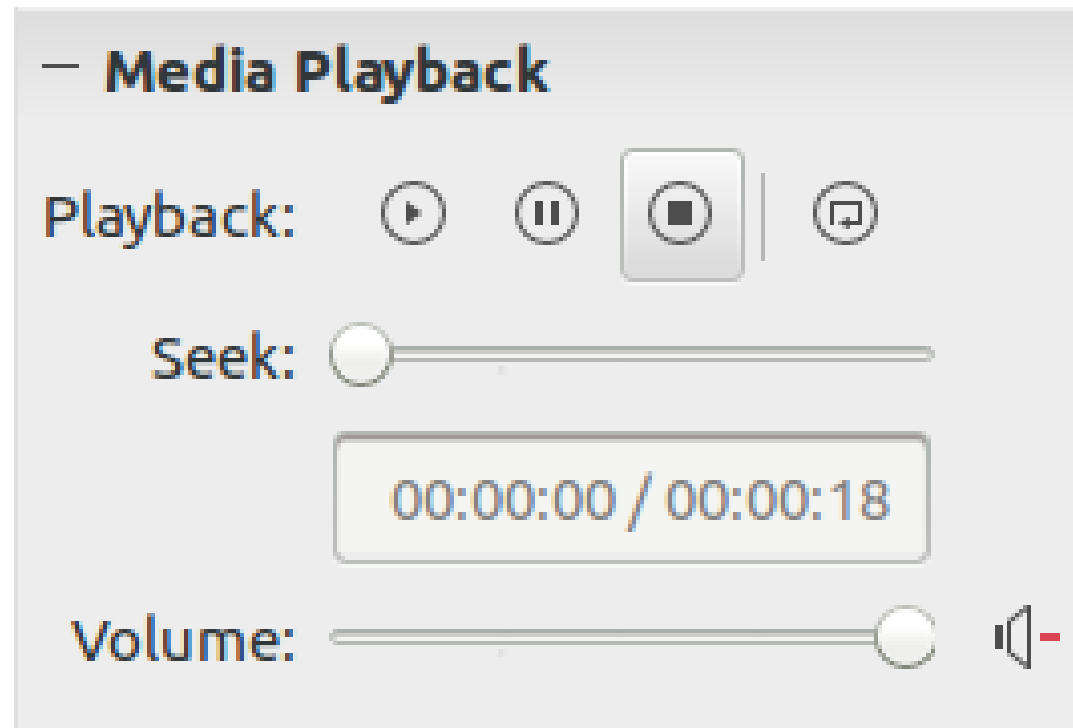
- ▼ 10 categories – 153 shapes (Same shapes found on the shapes toolbar in Draw)
- ▼ More Shapes Panel (WIP) would go in the Shapes Deck below Default Shapes Panel



tdf#87794: Media Playback Panel in Properties Deck

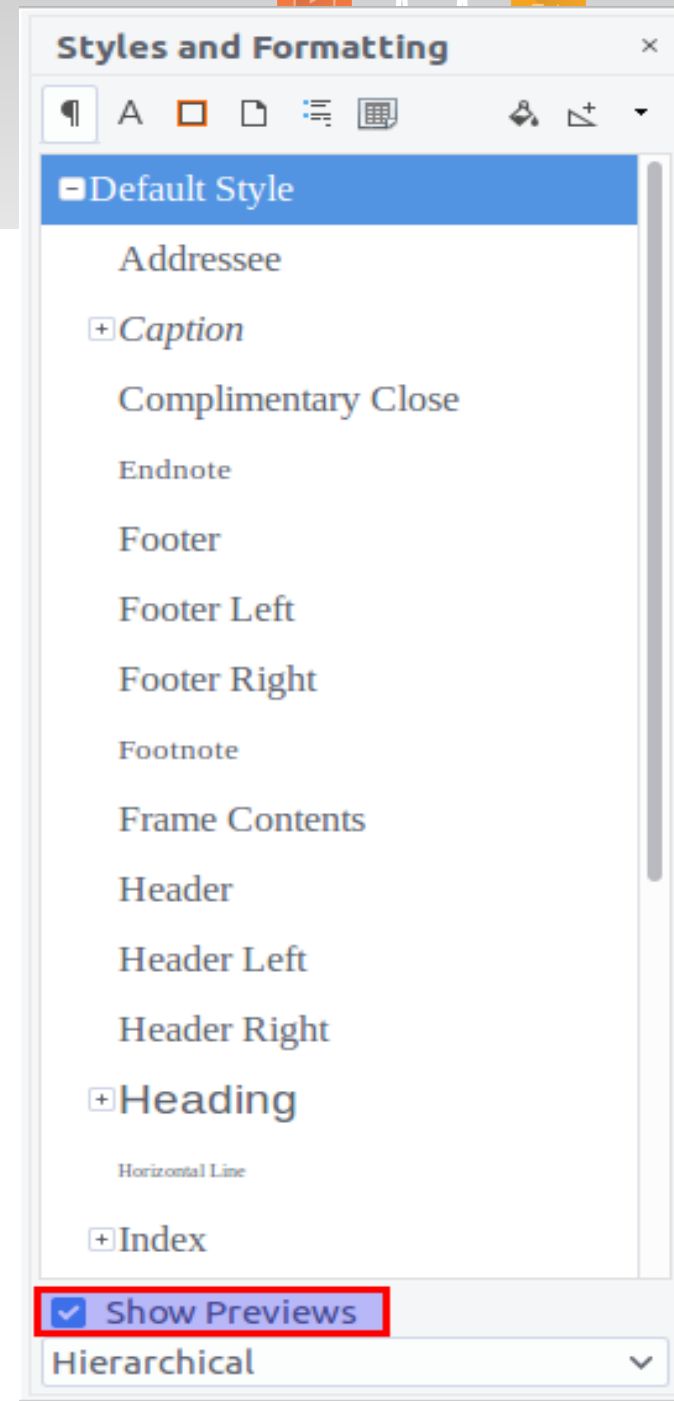
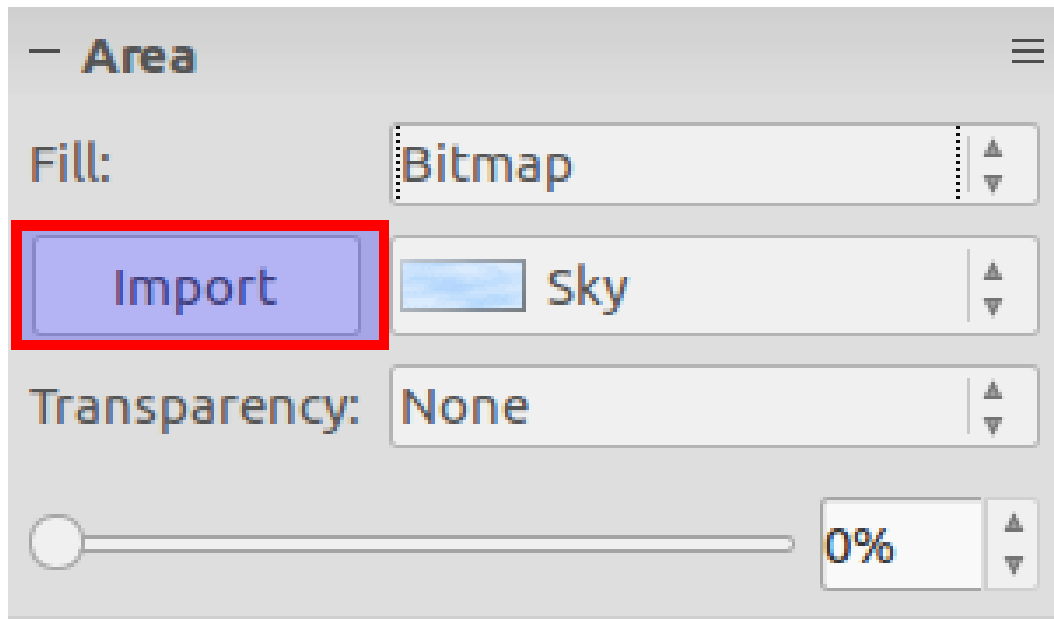


- ▼ Now Media Playback toolbar is no longer required!

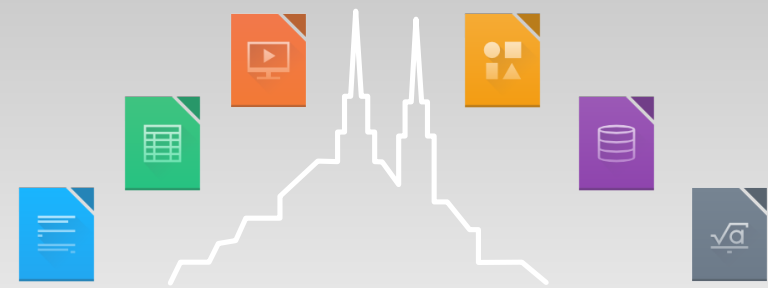


Other Improvements

- ▼ tdf#93845: Show Previews checkbox for Writer Styles
- ▼ tdf#90078: Import Bitmap Functionality to Area Panel



What now?



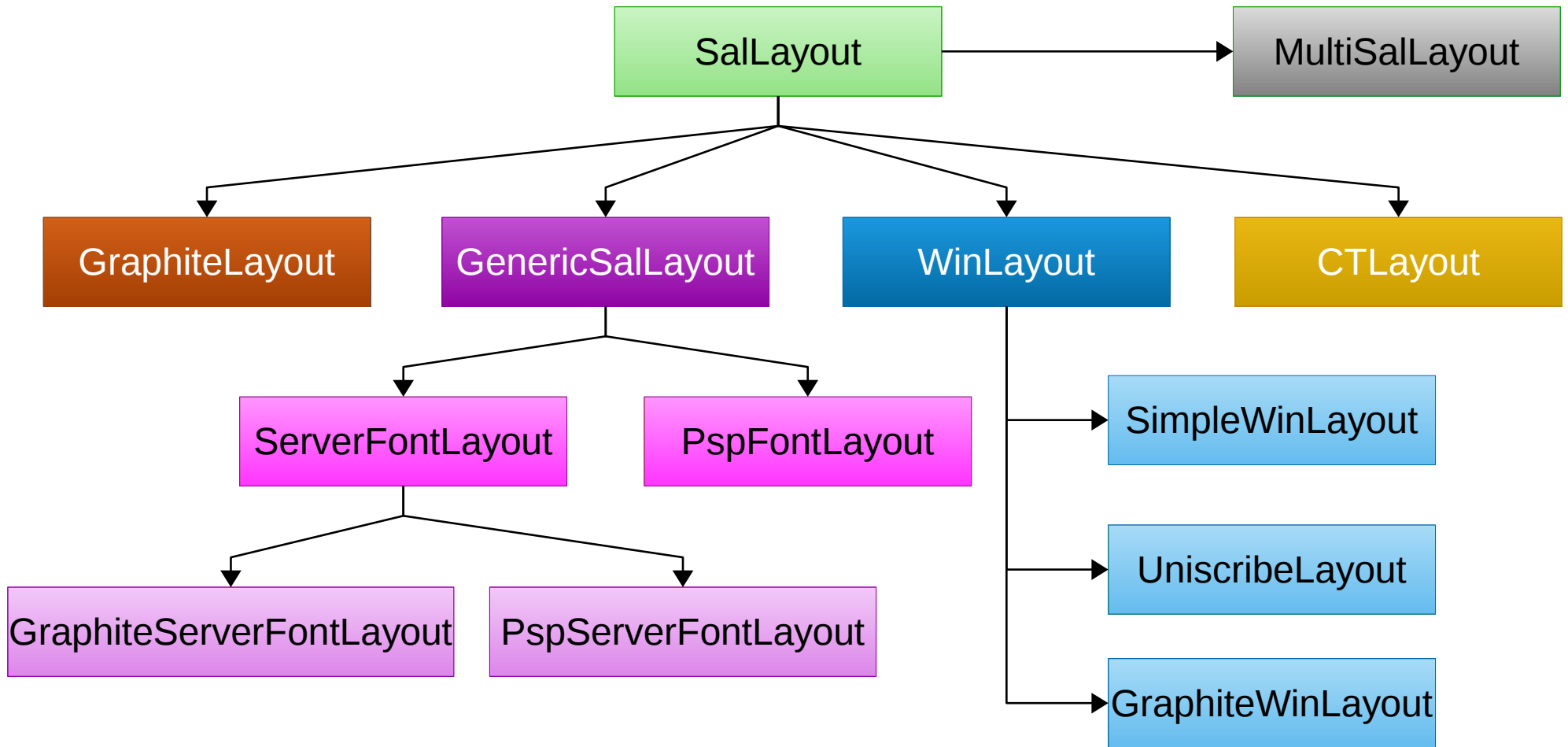
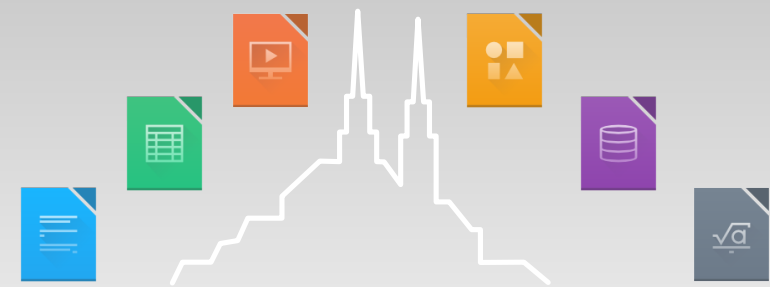
- ▼ Most panels arriving in LO 5.3
- ▼ QA issues are being worked on.
- ▼ Use the panels, report bugs!
- ▼ Perhaps contribute to Sidebar development?



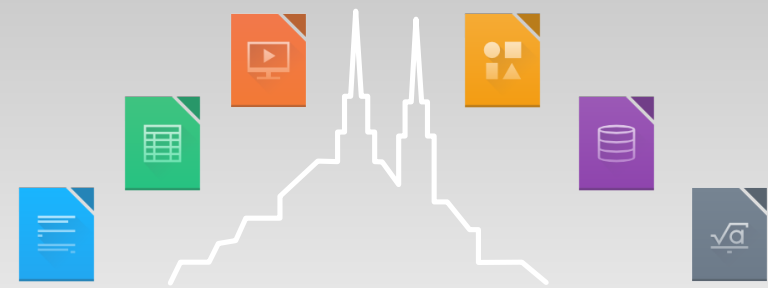
Unifying LibreOffice Low Level Text Layout

- ▼ Akash Jain (autoit)

Problem

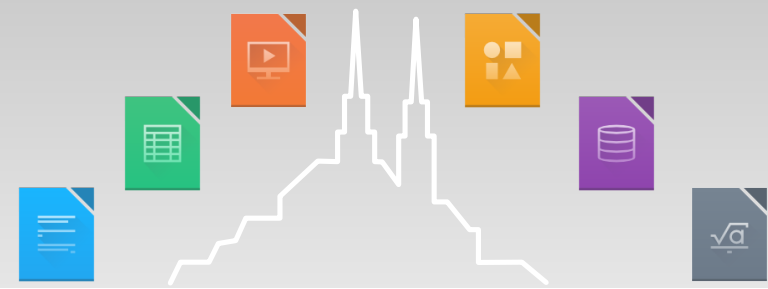


Problem: complexity



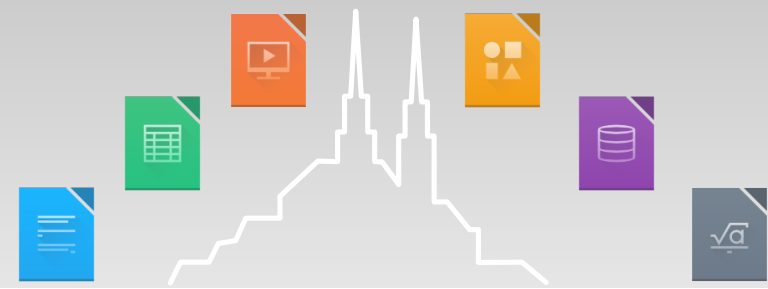
- ▼ 3 classes on Windows, simple, OpenType and Graphite.
- ▼ 4 classes on Unix, OpenType, Graphite, and 2 just for PostScript printing.
- ▼ 1 class on macOS, but no Graphite support.
- ▼ Now imagine how much work is needed to add support for something as simple as user controllable font features.

Problem: inconsistency



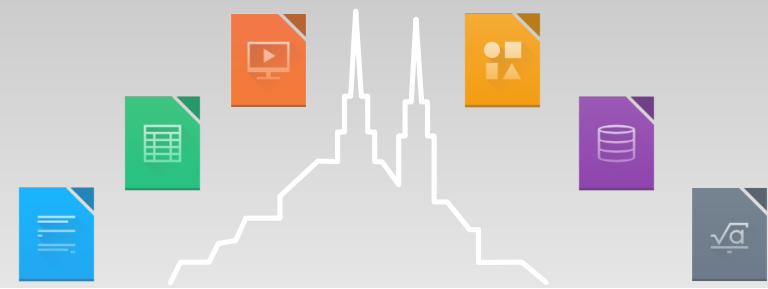
- ▼ Different code paths on different platform, or even for different writing systems, with little to no code sharing.
- ▼ Language/writing systems support varies between platform APIs.
- ▼ It varies even between different versions of the same platform.
- ▼ Different platform APIs allow for different levels of integration.

GSoC project: idea



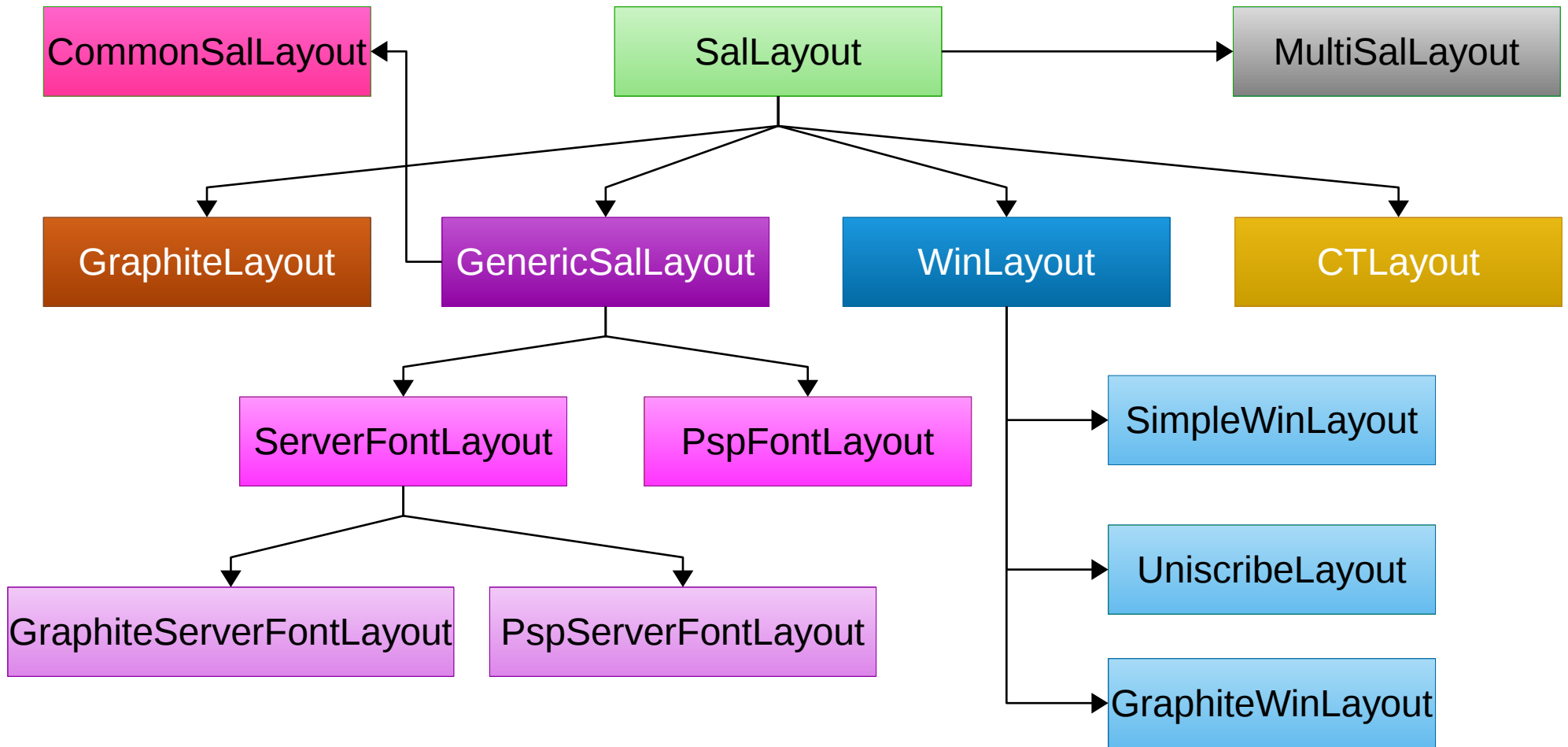
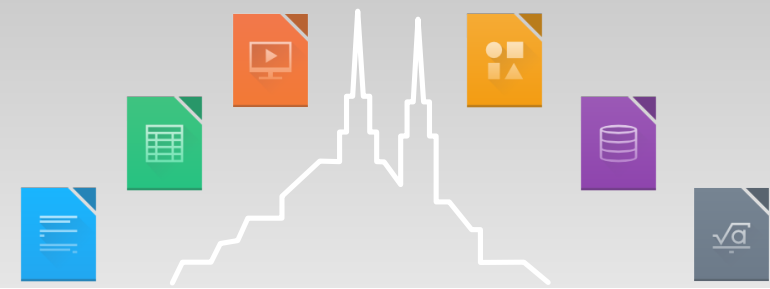
- ▼ One class to rule them all.
- ▼ Based mostly on the existing Unix implementation.
- ▼ Uses HarfBuzz for everything; OpenType, Graphite and even AAT on macOS.
- ▼ Font loading is still done by platform APIs, for better integration.

GSoC project: status

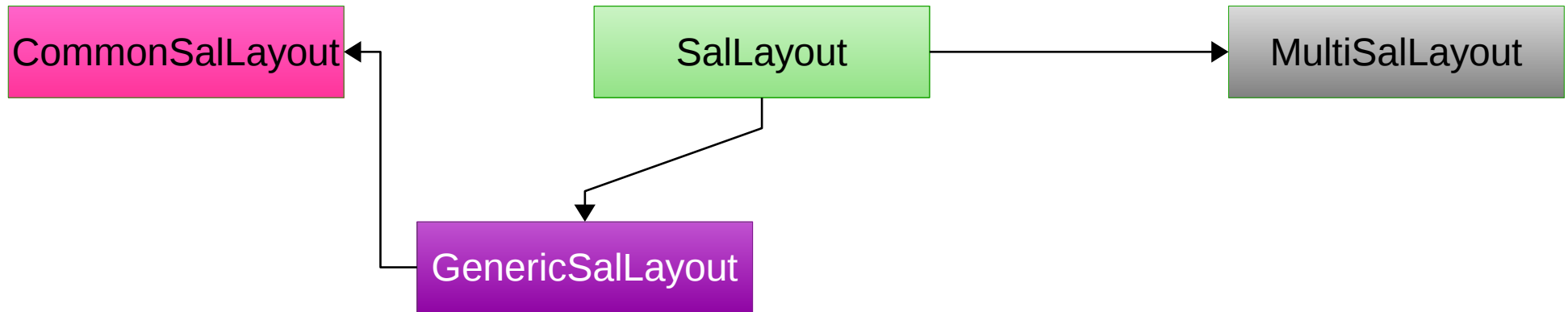
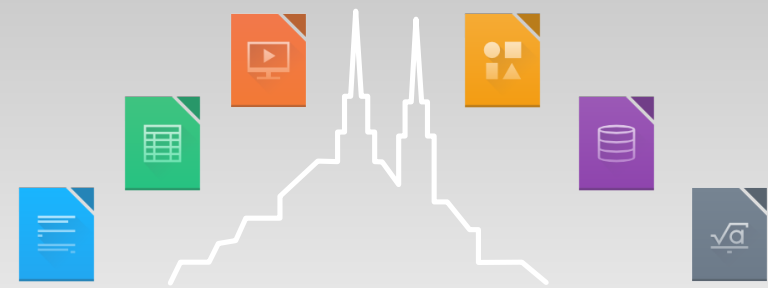


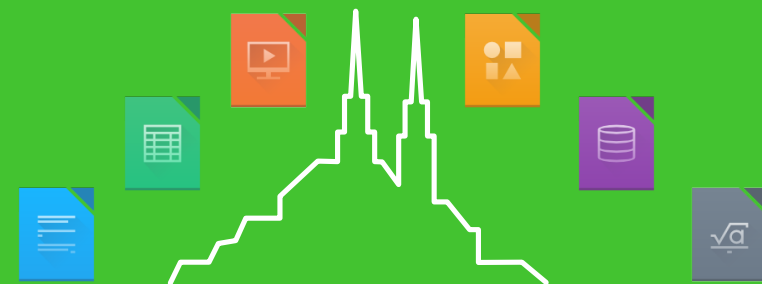
- ▼ A new class, CommonSalLayout. Naming is really hard!
- ▼ Code integrated with font and graphics libraries on all supported platforms. Can be switched on/off at run time.
- ▼ Some issues remain:
 - ▼ There seem to be some performance regressions.
 - ▼ Font fallback does not work on macOS.
 - ▼ Some Graphite fonts are broken (e.g. Awami font), GenericSalLayout::ApplyDXArray() I'm looking at you!
 - ▼ Non-SFNT (e.g. Type 1) fonts are not currently supported.
 - ▼ Controlling font features is not yet supported.
 - ▼ Windows XP is not supported.
- ▼ Code should land on master soonish.

feature/commonsallayout branch, and soon in master



Post 5.3 release





Thank you ... for working on this!

- ▶ Thanks a lot for your attention
- ▶ Thank you GOOGLE for sponsoring!!!
- ▶ Thank you mentors for your time & encouragement
- ▶ Spread the word, encourage students to apply next year!



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