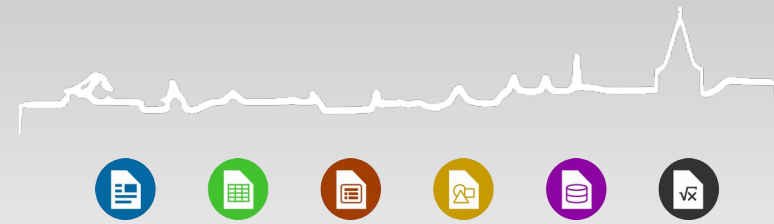# Interesting Missing Features (in Impress)

- Muthu Subramanian
  LibreOffice Conference, 2015
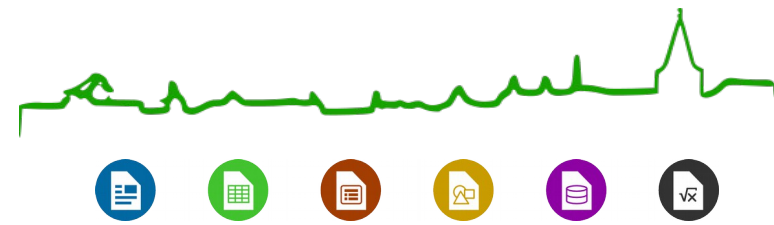
Agenda
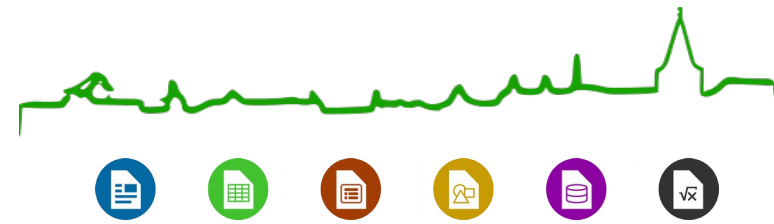
- Master Slides Vs Layouts
- (Gradient) Fill Angles
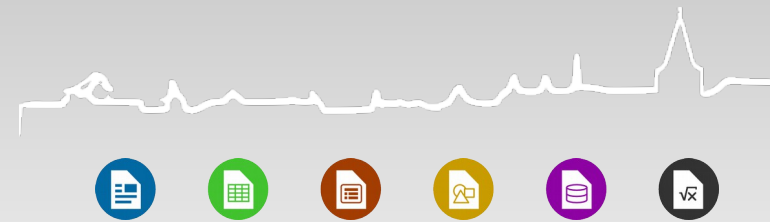- Gradient color for text and lines

Some Background

Master Slides Vs Layouts

Master Slides Vs Layouts

- Master Slide
    - "A slide master is the *top slide in a hierarchy* of slides that stores information about the theme and slide layouts of a presentation, including the background, color, fonts, effects, placeholder sizes, and positioning."
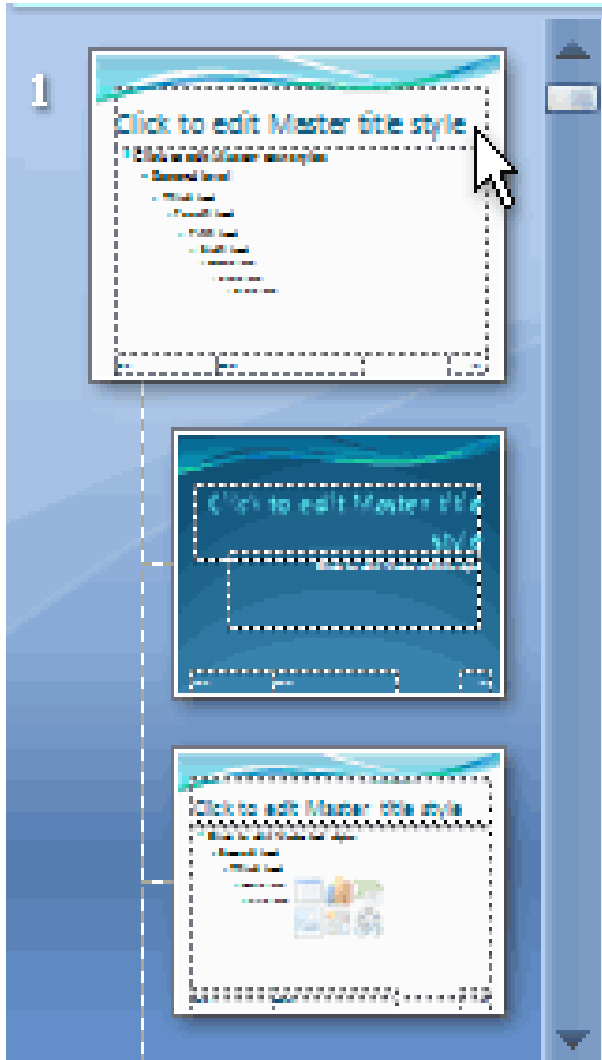
- Layouts
    - "Slide Layouts are slides that have *placeholders* on them that you can use to add content."

- *Normally*, one set of layouts of a theme would have one Master Slide
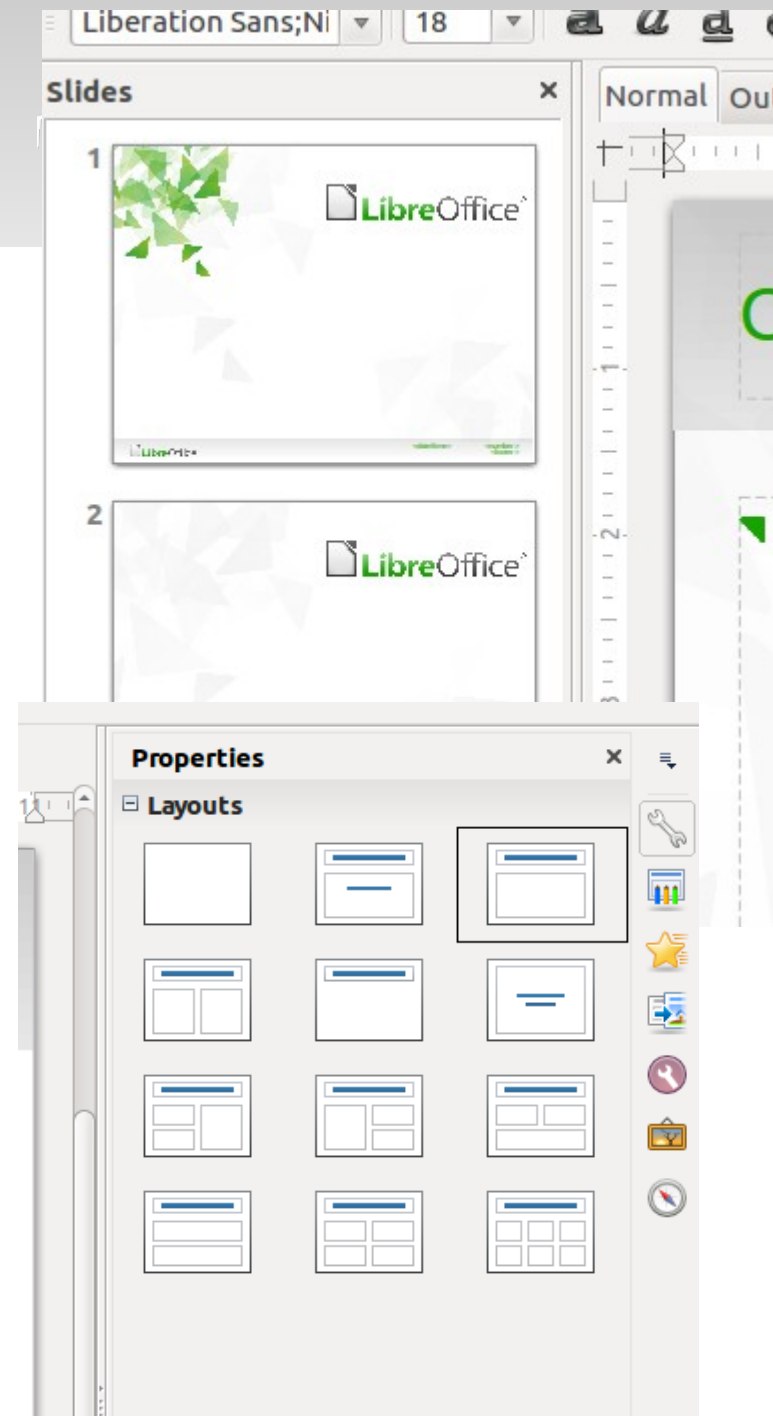
Master Slides Vs Layouts

In reality

- Layouts can contain some *look* related objects making a layout as a child of master slide
- Some times very few elements are reused from the master slide in a layout
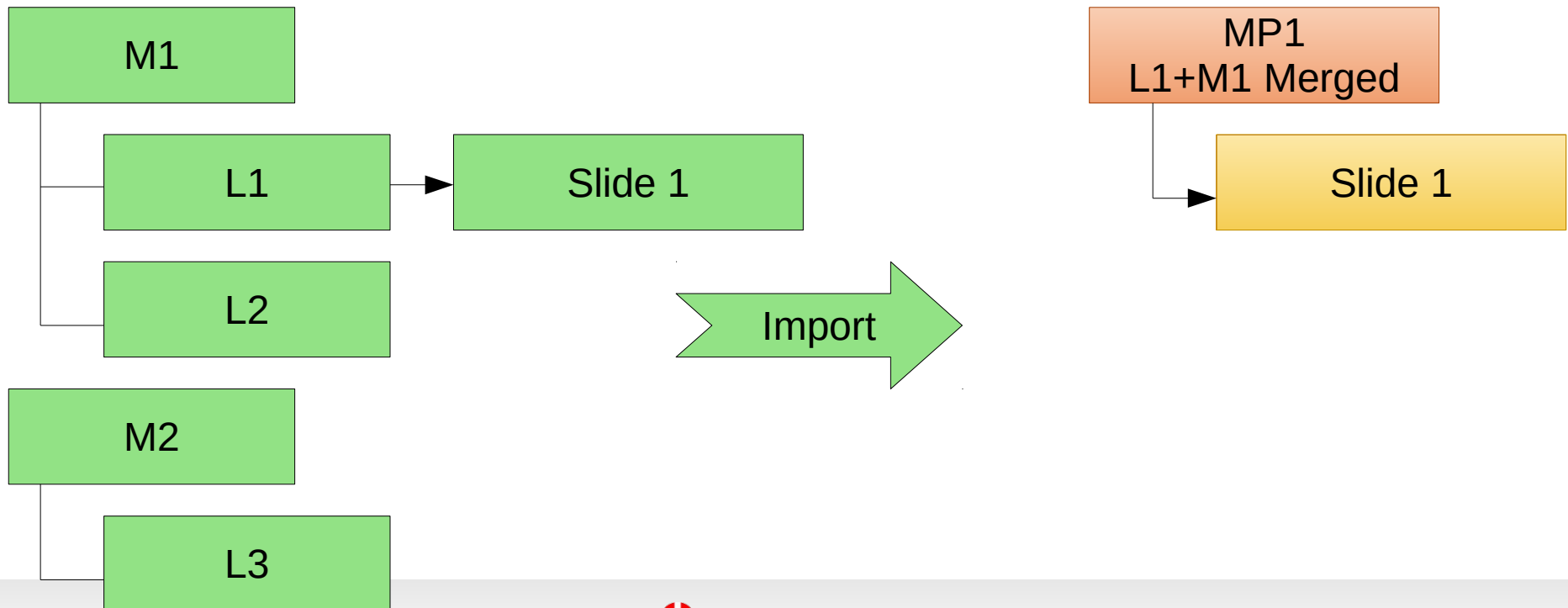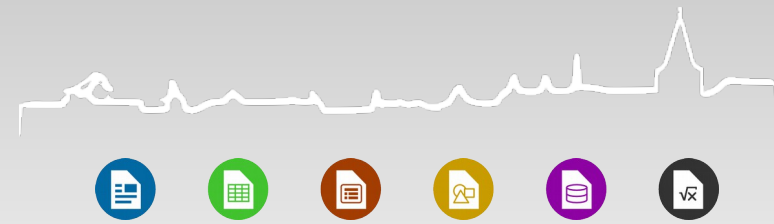
Master Slides Vs Layouts

- **Master Slides**
  - Some times called Slide Designs
  - Master Pages/Slides take care of the elements and the placeholders to some extent

- **Layouts**
  - LibreOffice Layouts are *strict* in acting like placeholders
  - These are *hard-coded* and not very easy to change.
  - Stored in layoutlist.xml
  - Ref: Vishv, GSOC 2013

Master Slides Vs Layouts
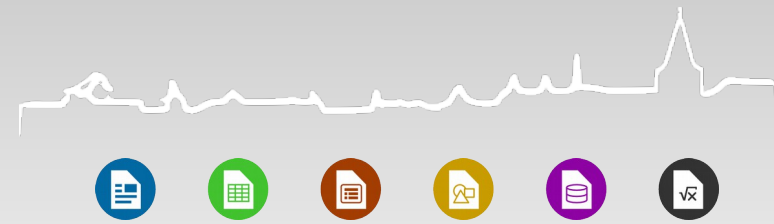
- When we import, e.g. pptx
  - We **merge** the layout used by a slide with its master slide and create a libreoffice's master page
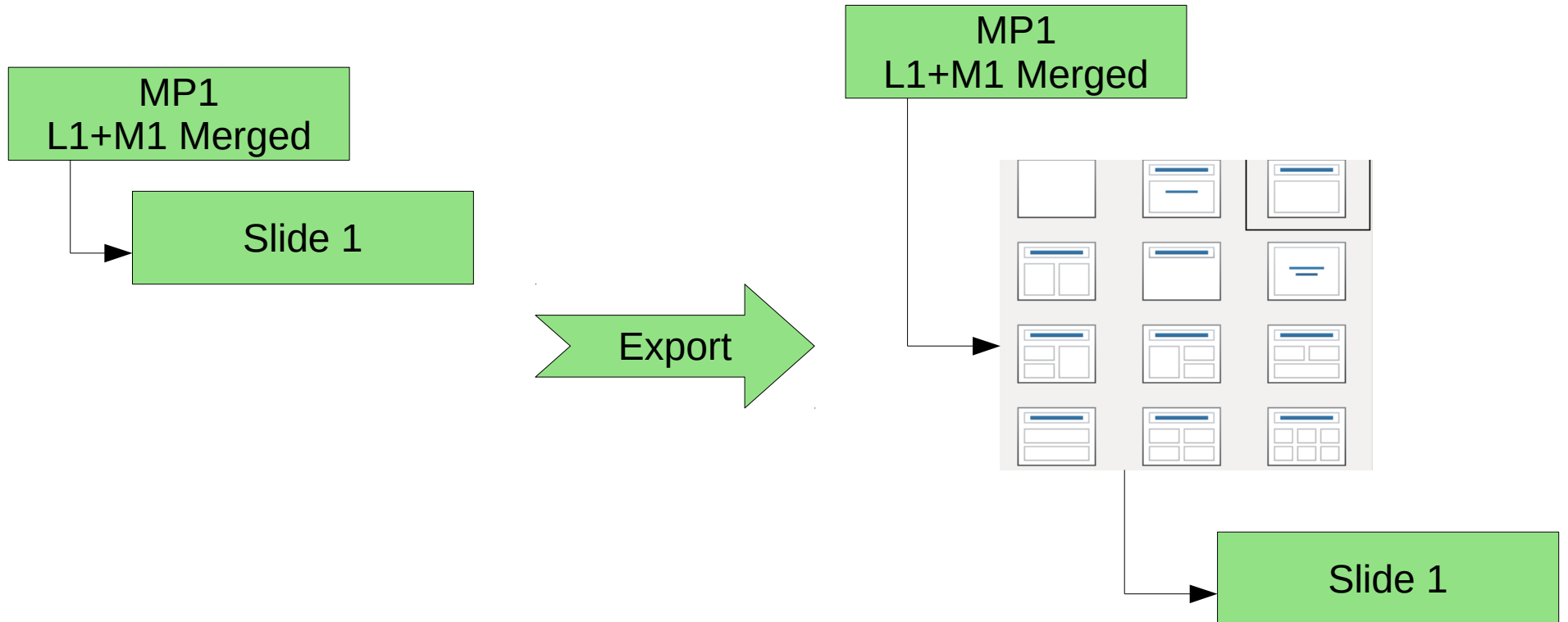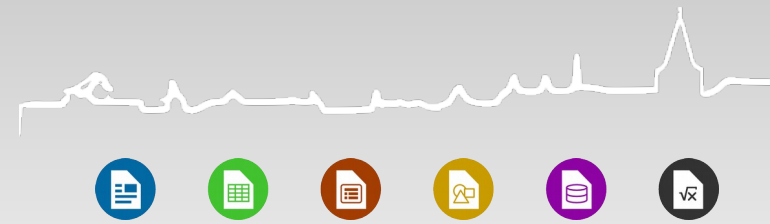 - Which also means, if there are layouts and/or master slides which are **unused**, they are **dropped**

Master Slides Vs Layouts

- When we export, to e.g. pptx
  - We create master slides with the existing master pages
  - We create predefined layouts (from LibreOffice's layouts) for the master slides

Master Slides Vs Layouts

- **Problems**
  - Multiple Master Slides
  - Too many Layouts – number of master slides * 12
  - All layouts are standard and are copies
  - Dropping of master slides and layouts
  - No relation between original layouts and exported layouts
    (Relation is probably between original layouts and exported master slides!)

- Template-Documents break heavily especially while inter-operating
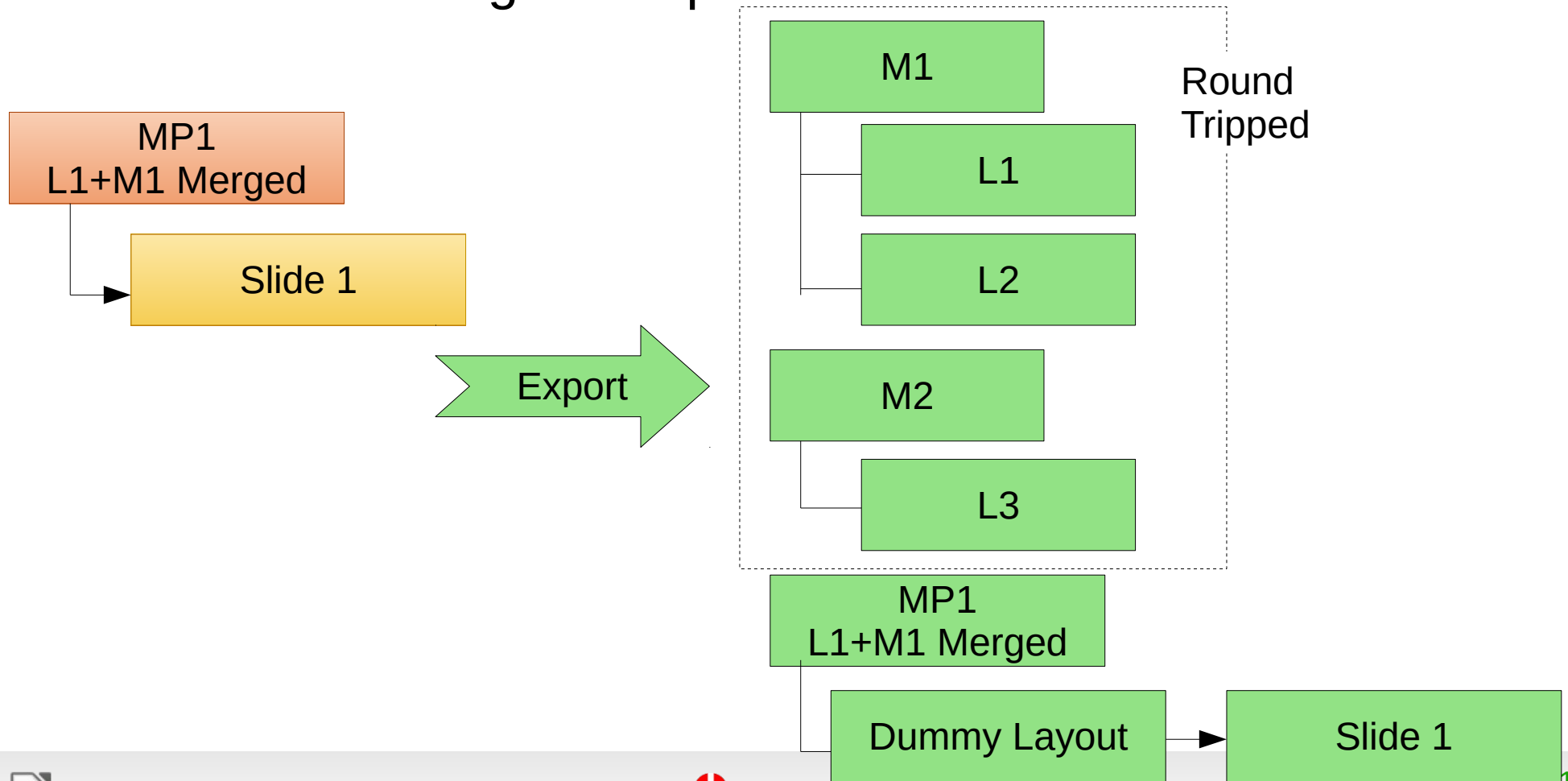
Master Slides Vs Layouts
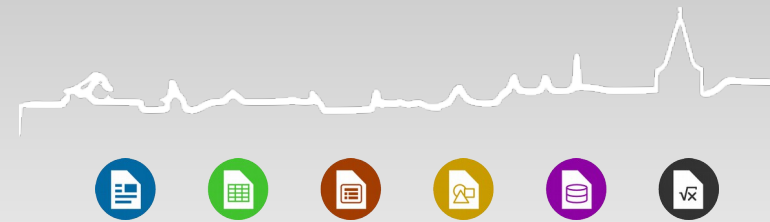
- Solutions
  - Implementing File specific Layouts in LibreOffice
    - At least makes it easier for users to create custom-file-specific layouts (in its true sense)
    - Wouldn't really work while importing layouts from, say, pptx

  - Implementing Child-Master Slides ('n' levels)
    - Gives the maximum flexibility
    - Would probably have a *tricky* UI to create and edit those
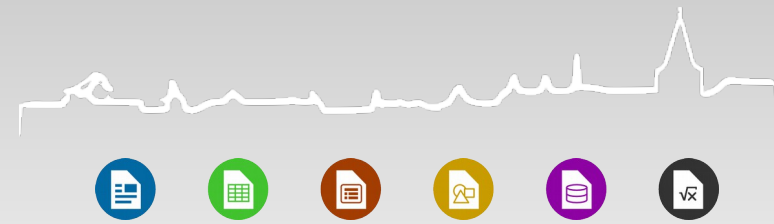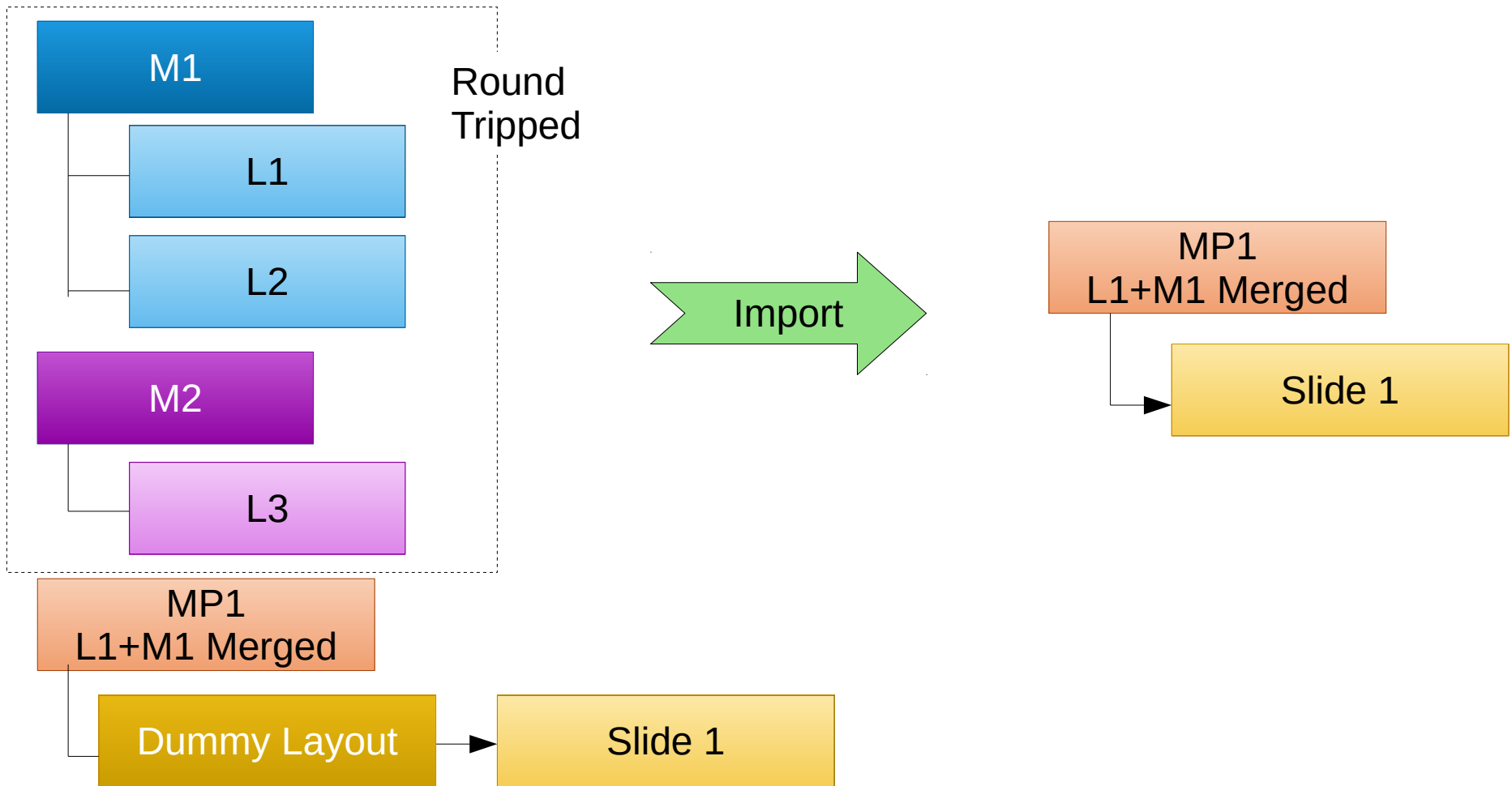   - Might get confusing to the user

Master Slides Vs Layouts
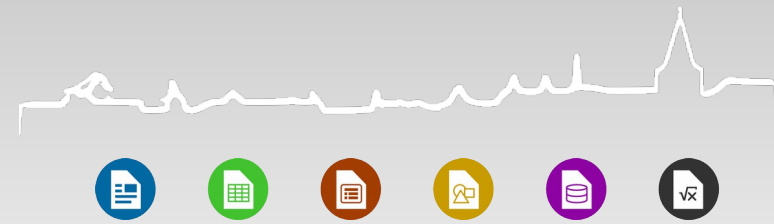
- Round-tripping Master Slides and Layouts from original file
  - Helps in inter-operating
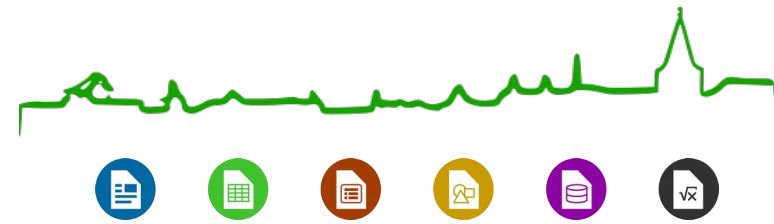 - While minimizing the impact on LibreOffice core features

```
MP1
L1+M1 Merged

Slide 1
```

Export →

```
M1
  L1
  L2
M2
  L3
```
Round Tripped

```
MP1
L1+M1 Merged

Dummy Layout → Slide 1
```

Master Slides Vs Layouts

- While Importing, we might need additional intelligence to not round trip the Merged Master Slide

M1

L1

L2

Round Tripped

M2

L3

Import

MP1
L1+M1 Merged

Slide 1

MP1
L1+M1 Merged
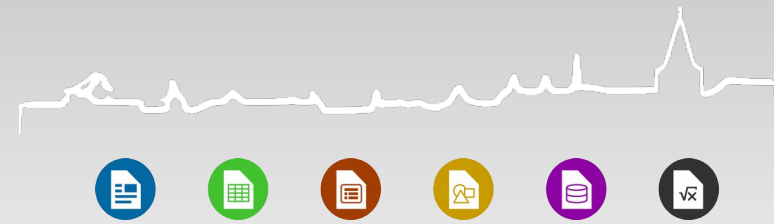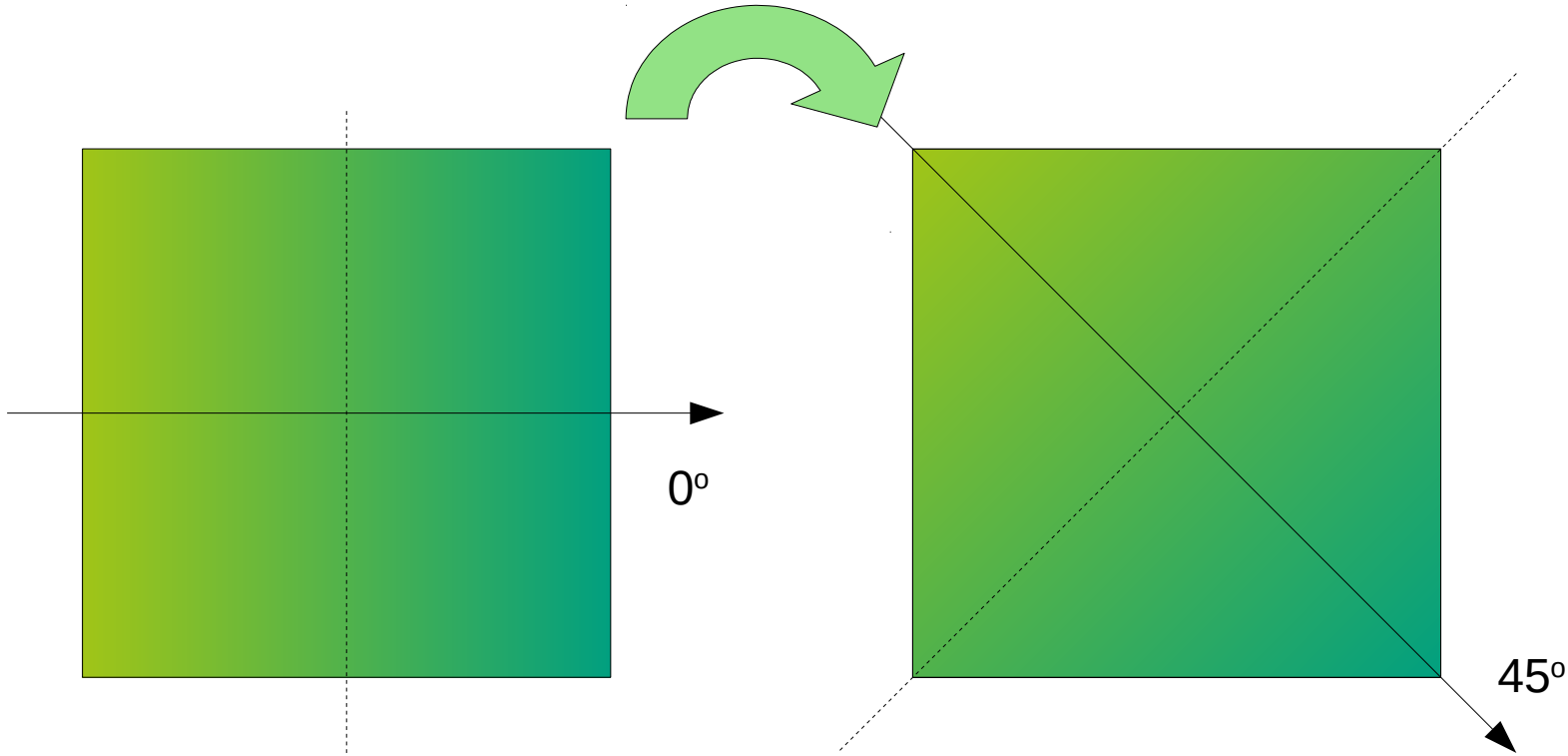
Dummy Layout

Slide 1

Gradient Angle Fill

Gradient Fill Angles

- LibreOffice Gradient Fill Angles

0°

45°

- Ref: Regina's Analysis:
  https://bugs.documentfoundation.org/attachment.cgi?id=115433
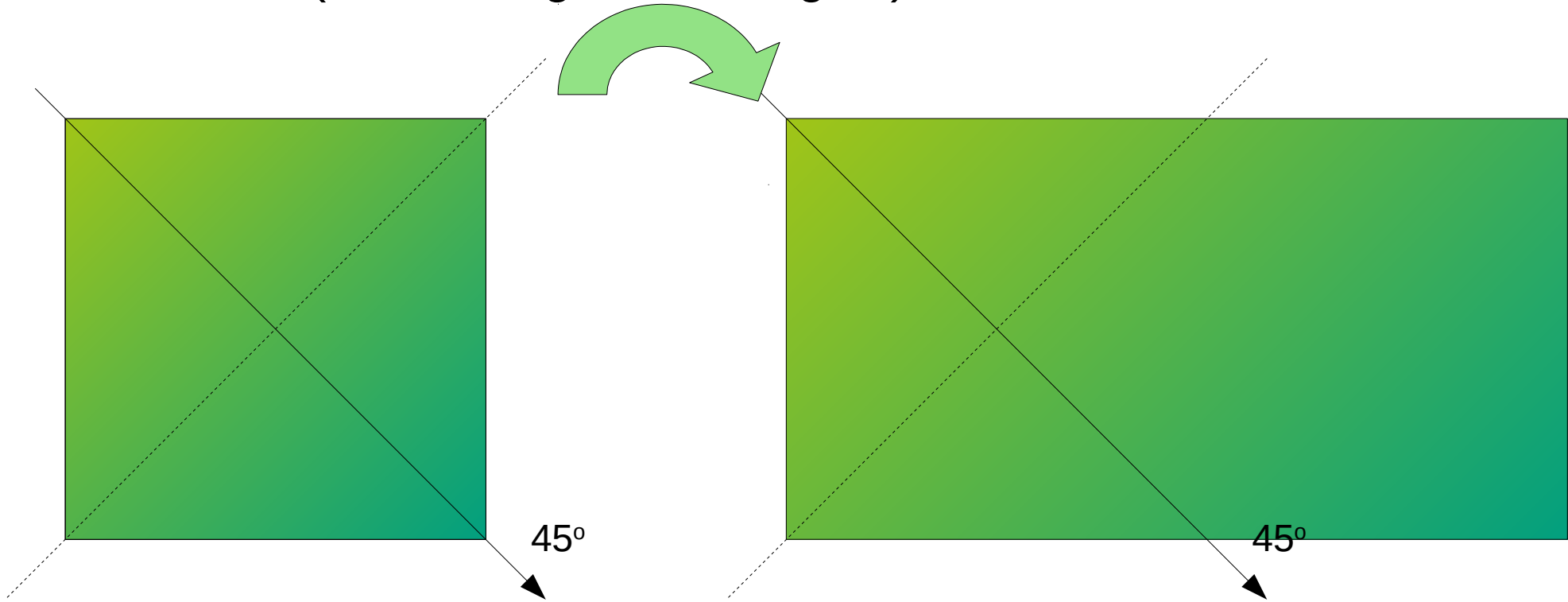
Gradient Fill Angles

LibreOffice (unscaled gradient angles)

45º

45º

Gradient Fill Angles

Scaled gradient angles

45º

Scaled Angles
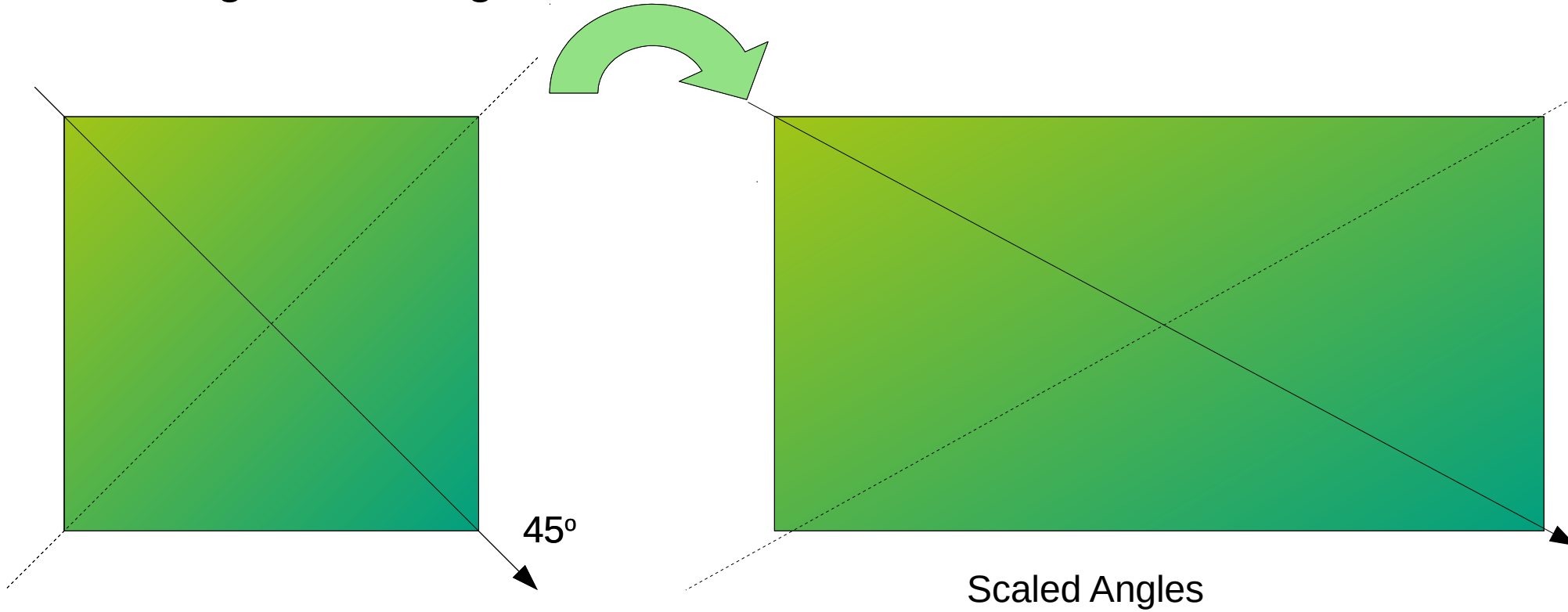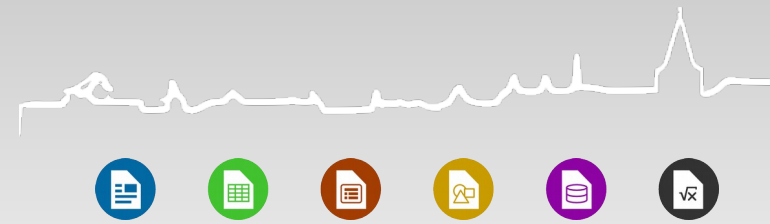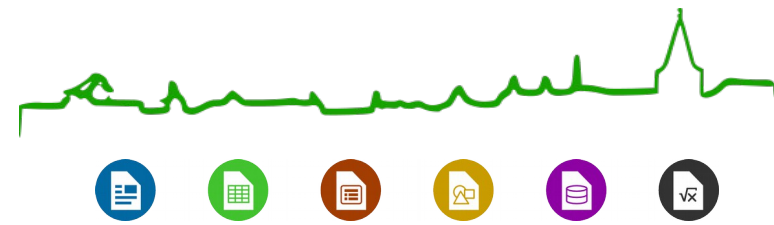
Gradient Fill Angles

Solutions

- Implement "scale" feature for Gradient Fills
    - Requires, probably, additional attributes in the ODF file
    - Relatively easier (?)

- Implement SVG's fill in ODF 1.2

Gradient Fill for Text, Lines, ...

Gradient Fill for text, lines...
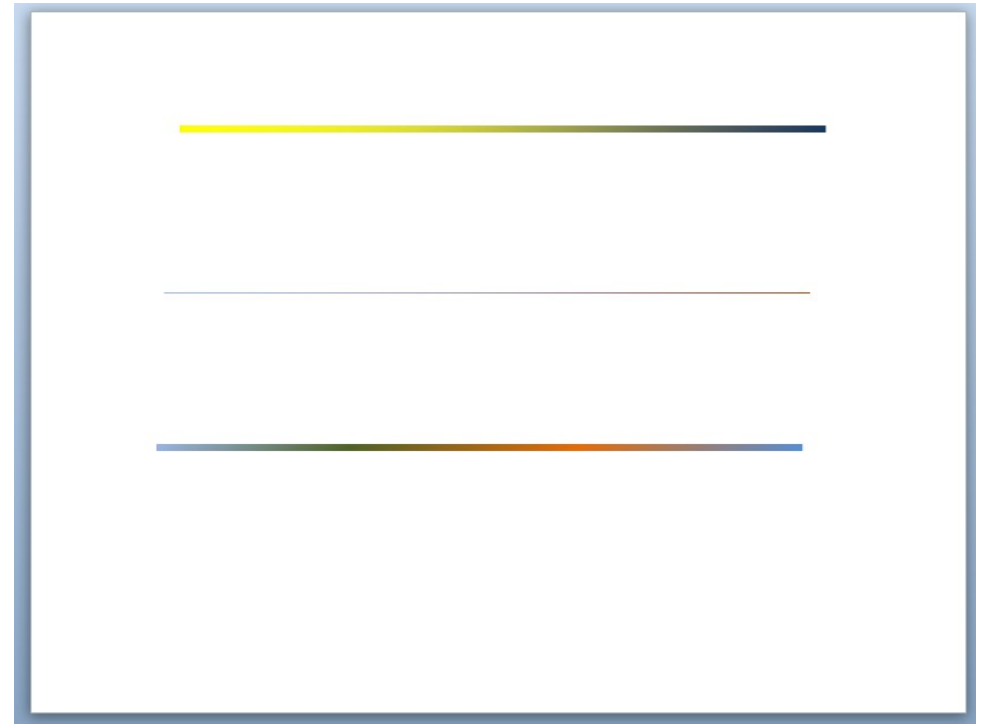
- Gradients for Text
- Automatically adjusts the gradient (to a line)
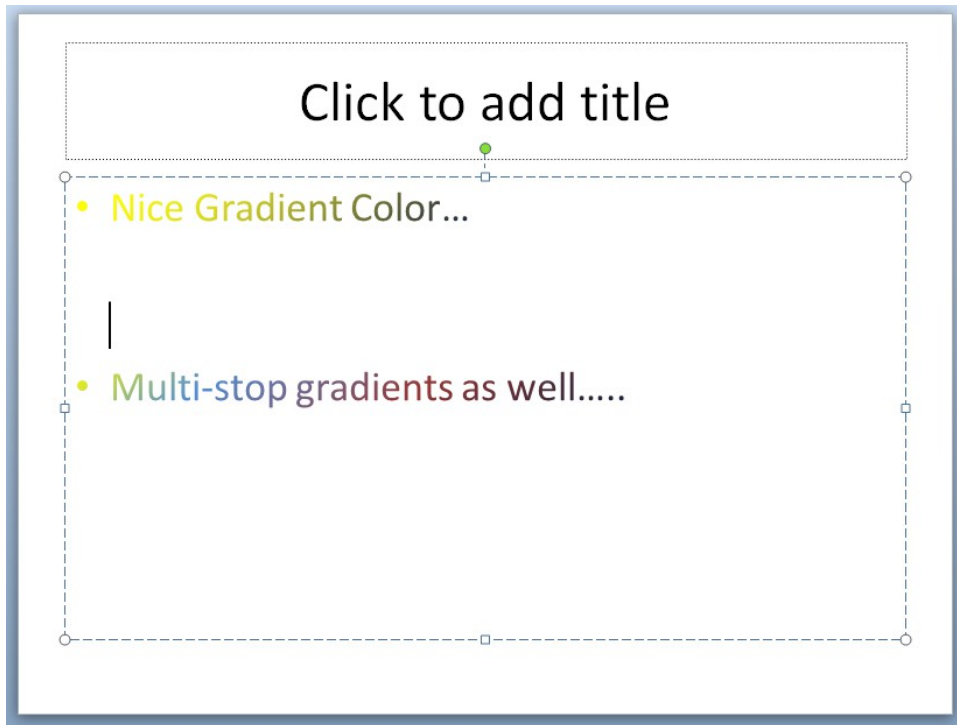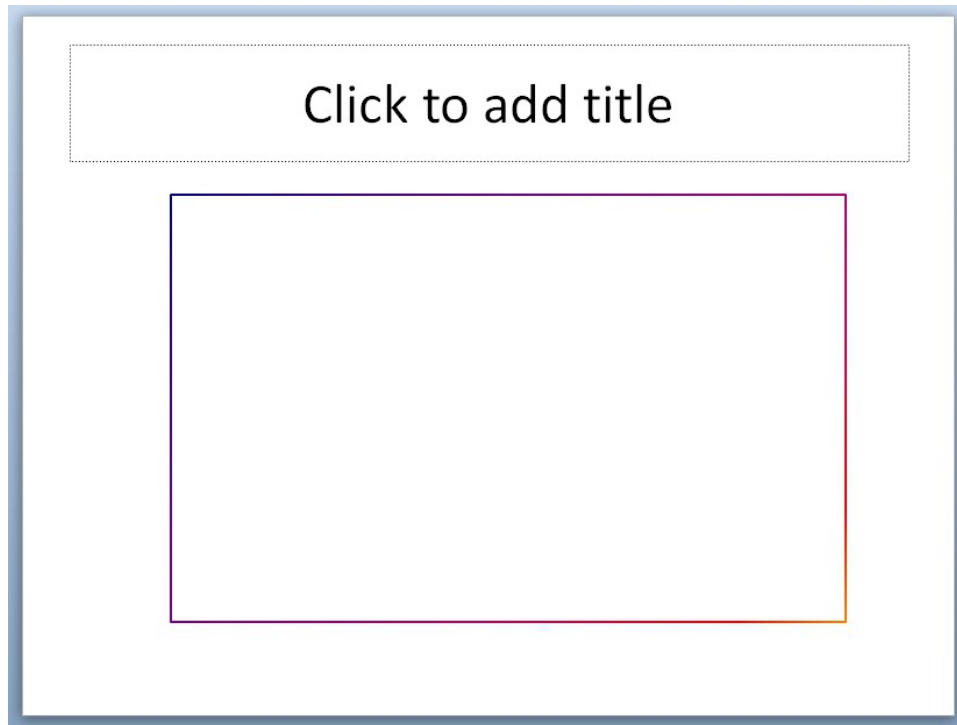
Gradient Fill for text, lines...

◥ **Multi-stop gradients**

◥ **Gradients for lines**

Gradient Fill for text, lines...

- Gradients for lines of shapes
- Both area fill and line fill

Gradient Fill for text, lines...

- Why we need it
  - Looks pretty, more features, ...
  - More importantly, Organization's branding materials

- What is required
  - Gradients for Text
  - Gradients for Lines
  - Multi-stop Gradients

- Current work
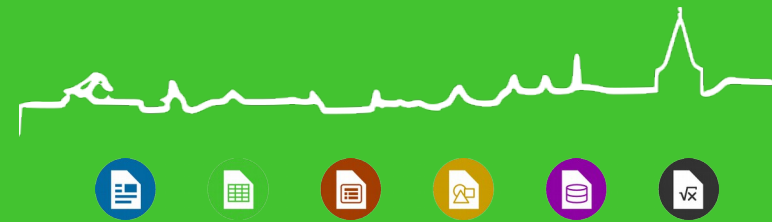 - Some work by Synerzip to support multi-stop gradients (yet to be merged?)

References

- https://support.office.com/en-us/article/What-is-a-slide-master-fe403992-0715-407a-b218-e0258c06f5de
- http://study.com/academy/lesson/understanding-powerpoint-slide-masters-and-layouts.html
- http://www.google-melange.com/gsoc/project/details/google/gsoc2013/vishv/5847701052719104
- TDF#90494

Thank you ...

- TDF
- LibreOffice Colleagues
- Ericsson & Team members