



Collabora Productivity

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Improving SmartArt import in LibreOffice Impress



Miklos Vajna

Software Engineer
vmiklos@collabora.com



LibreOffice
Impress



Szia!



Google
Summer of Code





Existent Basic support:



- Existent Basic support:**
- PowerPoint 2010+ writes a DrawingML fallback

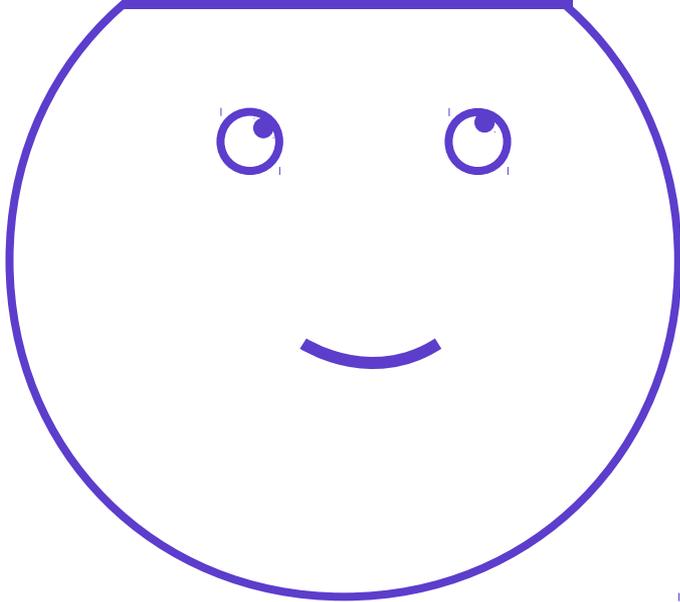


Existent Basic support:

- PowerPoint 2010+ writes a DrawingML fallback
- Some support for laying out the SmartArt

Basic **No fallback**
support

Motivation

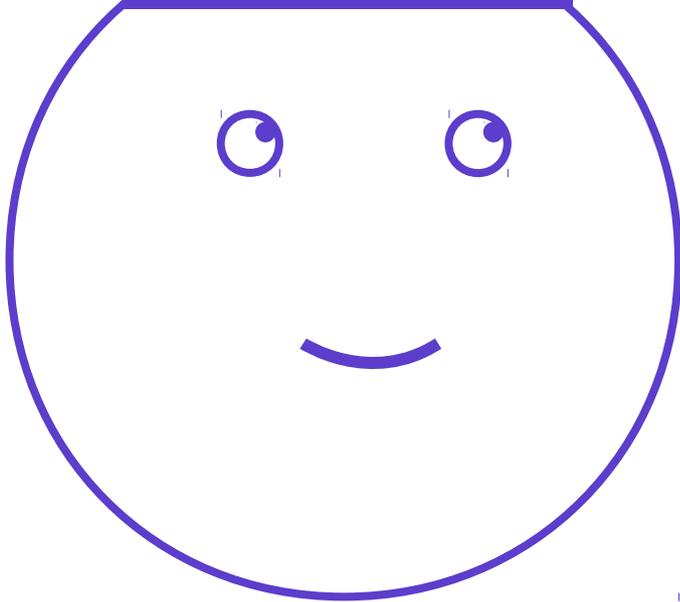


**Big corpus of legacy documents
without fallback**

It's needed

**Basic No fallback
support**

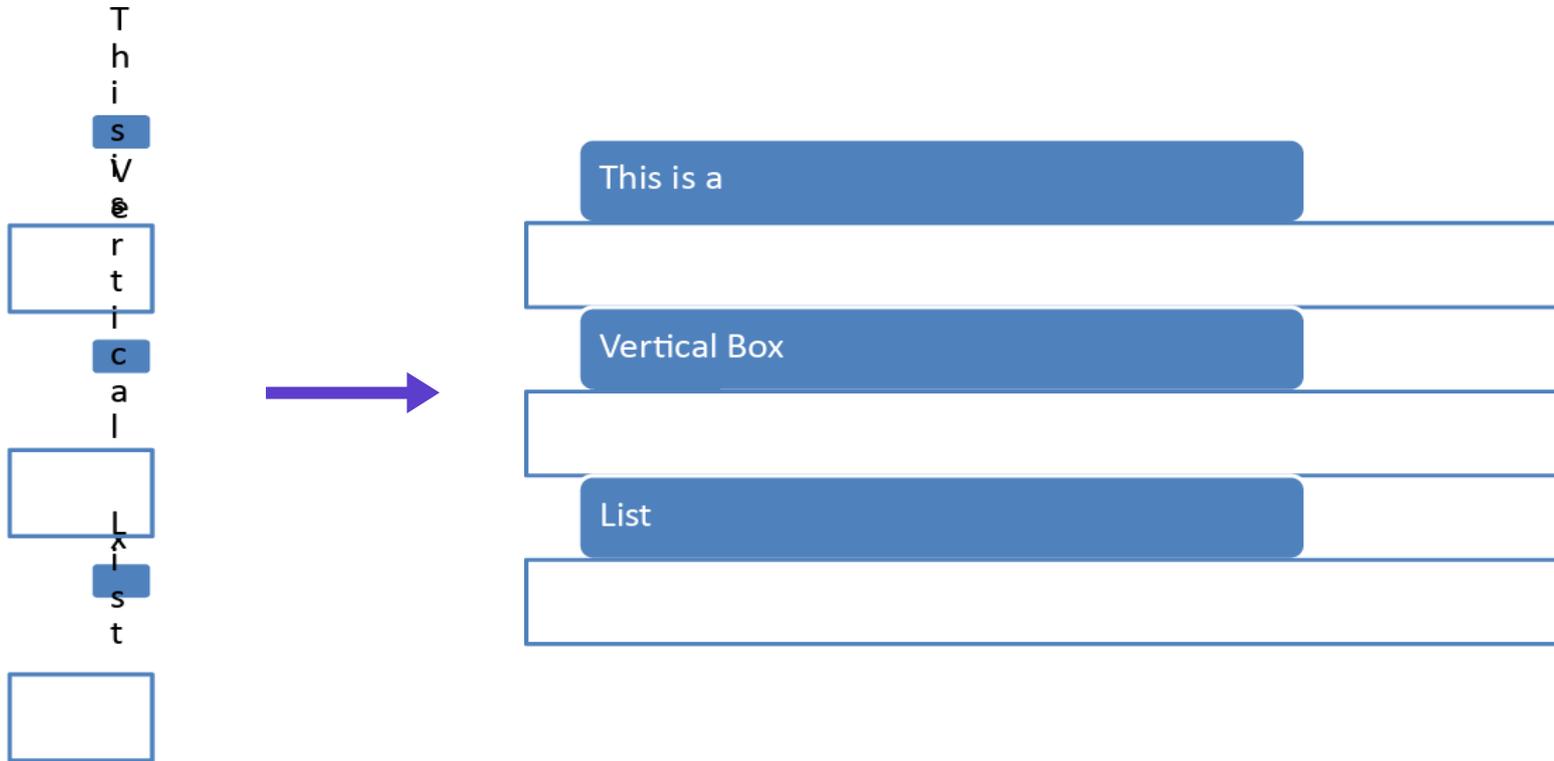
Motivation



**If editing is ever wanted,
own layout support is needed!**

**Basicbox, tab,
rendering, lined,
of bracket, table
list types v/width**

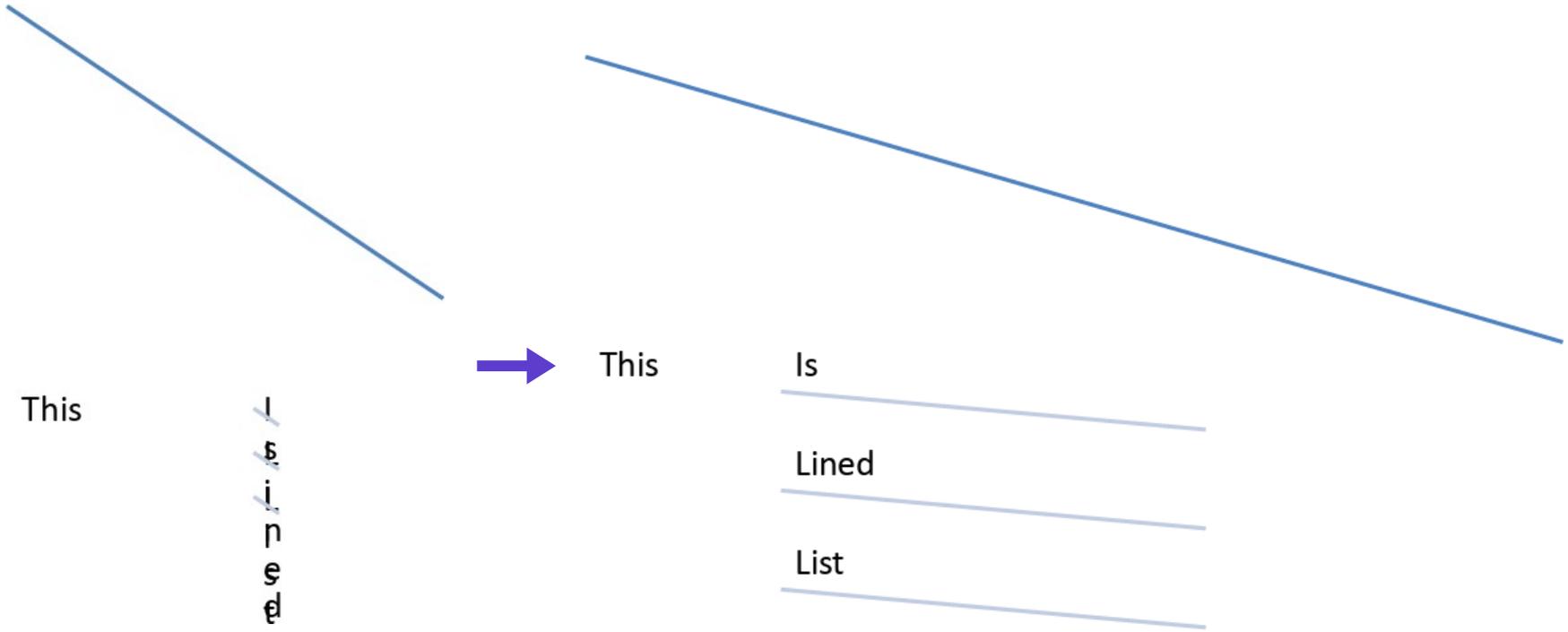
Vertical box list



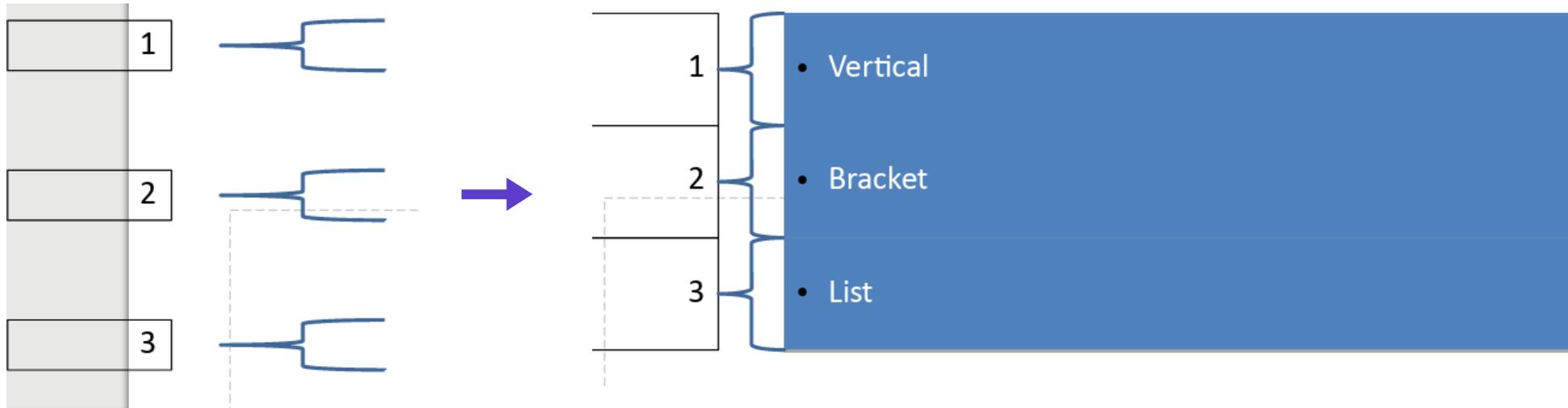
Vertical tab list



Lined list



Vertical bracket list



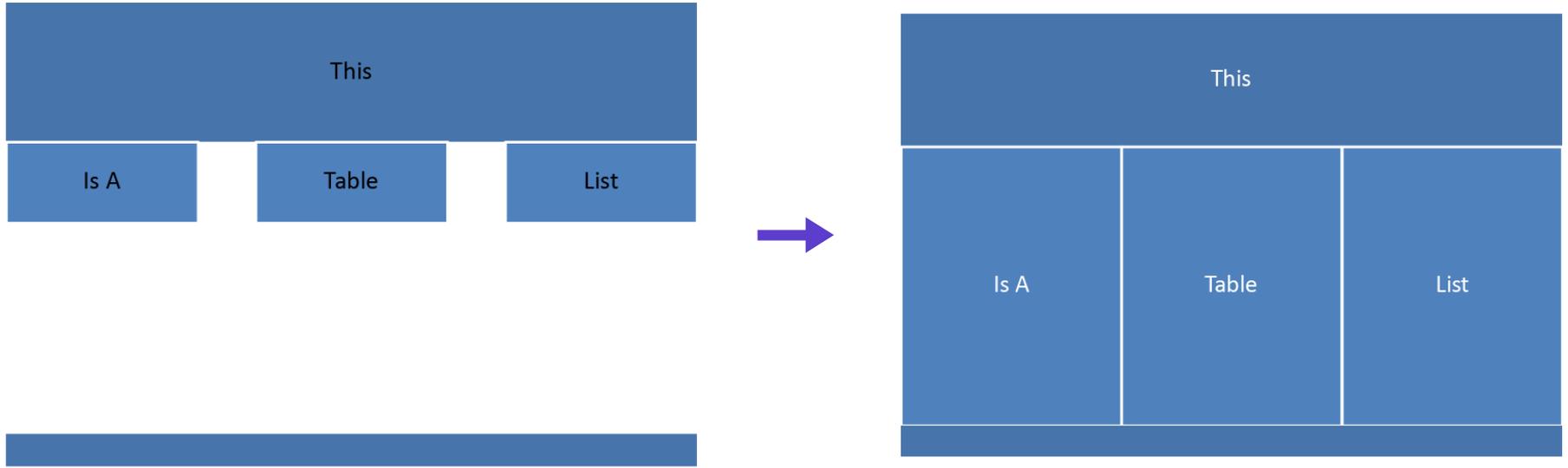
Varying width list

Varyi
ng
Width

List

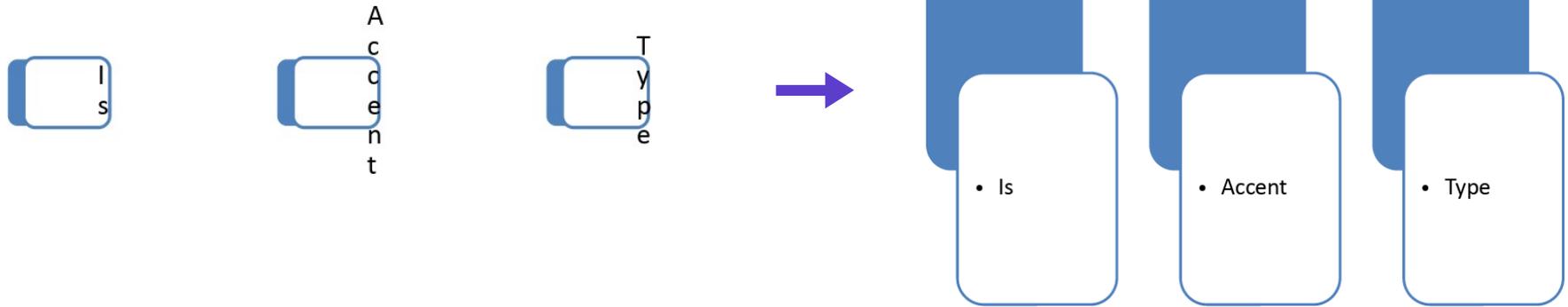


Vertical table list

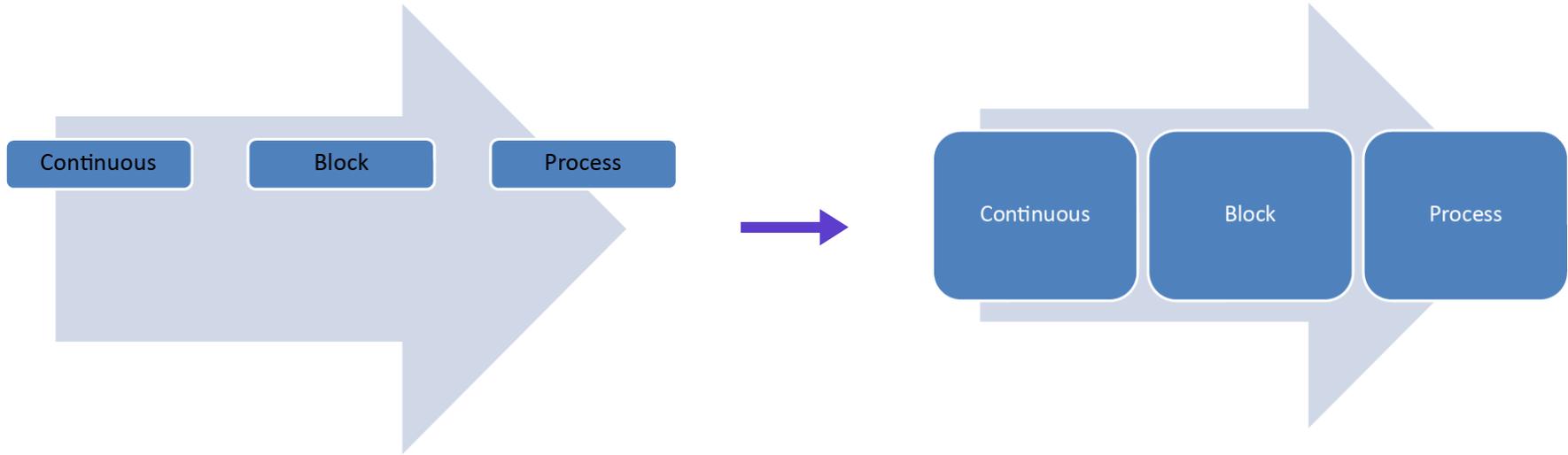


**Basic org. chart
rendering, accent
of cont. block
process types**

Accent process

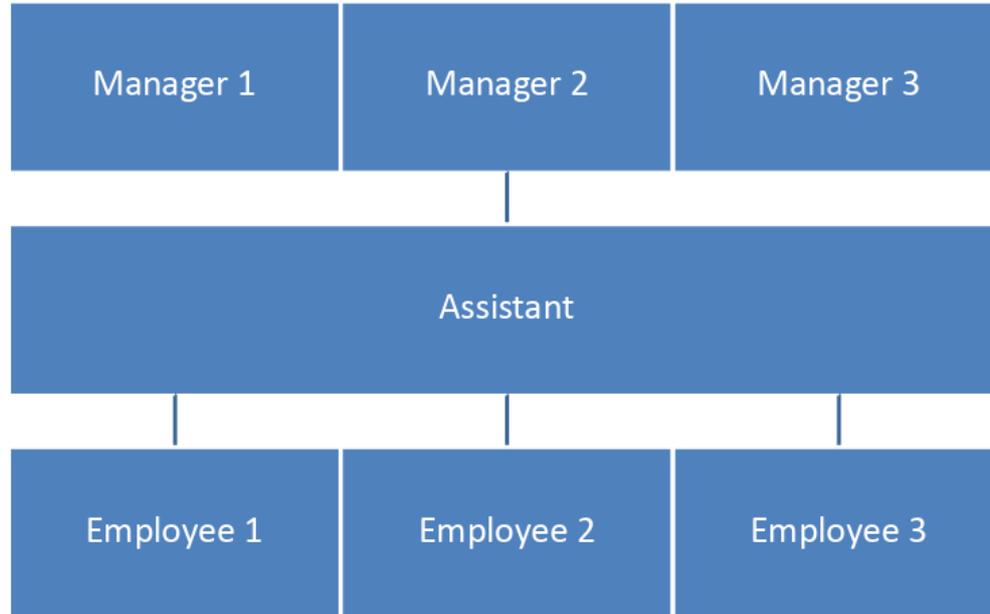


Continuous block process



Organizational Chart

F
E
A
S
I
S
T
A
N
T



Concepts, markup

How is this code

implemented? test-

ing



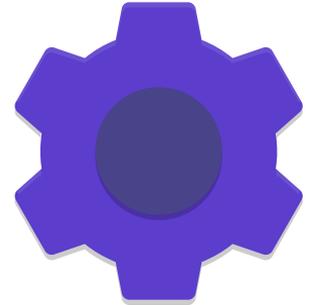
Concepts

Layout Nodes, Algorithms

Layout Tree, Data Model Mapping

Shape Properties

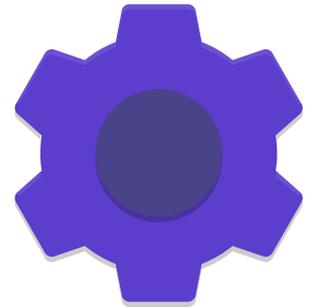
Constraints, Rules, Text Properties



Markup

4 or 5 XML streams / SmartArt:

- data1.xml: defines the shape data
- quickStyle1.xml: defines styles for layout nodes
- colors1.xml: defines colors for layout nodes
- layout1.xml: the layout definition
- drawing1.xml: optional DrawingML fallback



Code pointers

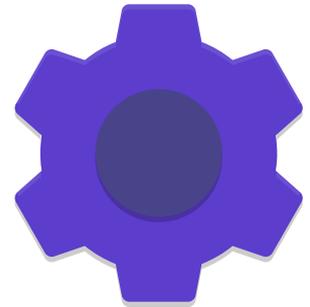
`oox/source/drawingml/diagram/` has all the code

SmartArt layout: import-time

Input: per-diagram XML streams

Output: a tree of `oox::drawingml::Shape` objects

→ `oox::drawingml::Shape` → XShape mapping code is shared with normal DrawingML import



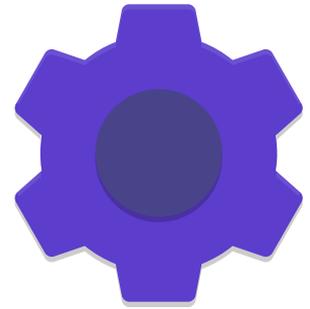
Testing

Integration testing only

CppunitTest_sd_import_tests_smartart

28 tests, 147 asserts

For all recent improvements:
No functional change without a test





Collabora Productivity

Thank

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Collabora is an open source
consulting company

you

What we do and share
with the community
has to be paid by someone.



Thanks to our partner **SUSE**
for trusting us in making
this possible