



allotropia

# Add uniform Glow effect for texts in shapes

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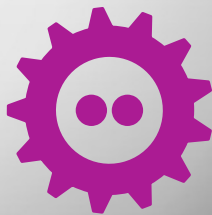
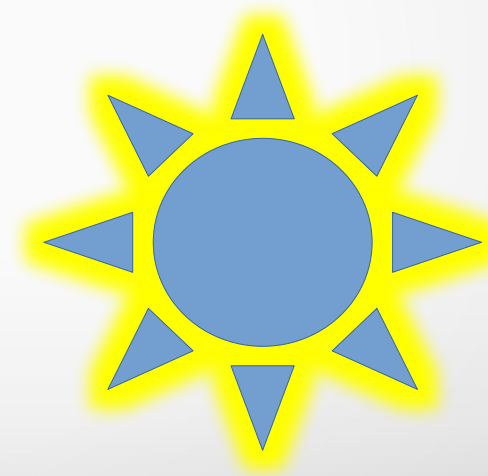
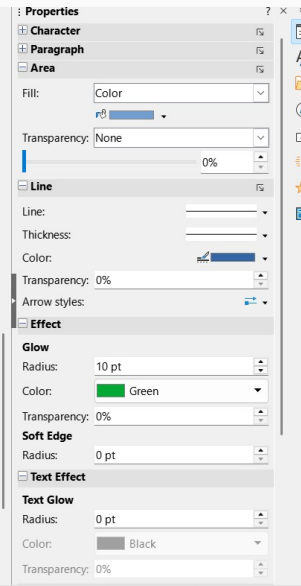
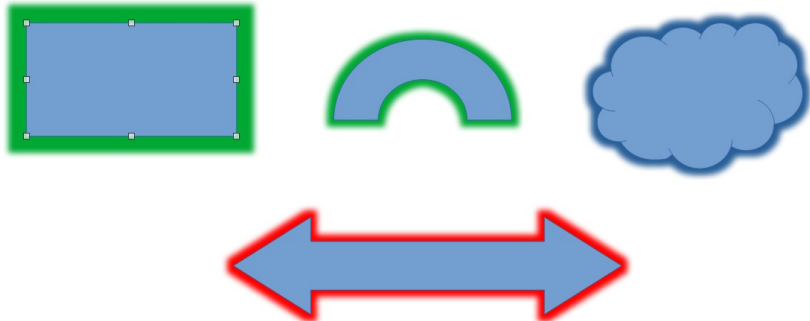
# Glow effect for texts in shapes



## History

- In LibreOffice, we could already apply glow and soft edge effects for shape objects. This feature have already worked in LibreOffice since version 7.0.
- [Relevant bug reports](#)

### Simple shapes with Glow effect



## History

- But we still couldn't apply glow effects for texts in shapes.
- [Relevant bug reports](#)

*MS-PowerPoint*

*LibreOffice Impress 24.2*



Text with glow effect in a  
placeholder

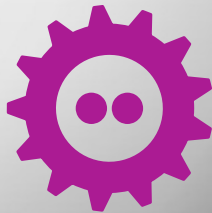
This is another text with glow  
effect



Text with glow effect in a  
placeholder

## What was implemented in the first patches

- Add new text Glow effect properties for shapes
  - ATTR\_GLOW\_TEXT\_COLOR
  - ATTR\_GLOW\_TEXT\_RADIUS
  - ATTR\_GLOW\_TEXT\_TRANSPARENCY
- Using new TextGlowPrimitive for rendering text glow
- Add new UI Glow Effect on sidebar for texts  
(Only for Impress/Draw and Calc)
- Import/Export ooxml files with Glow effect on texts in shapes  
(Only PPTX/XLSX)
- Import/Export odf files with Glow effect on texts in shapes
- Add unit test for glow text attributes in ODF
- Add unit tests for OOXML import/export



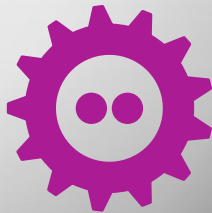
# Glow effect for texts in shapes

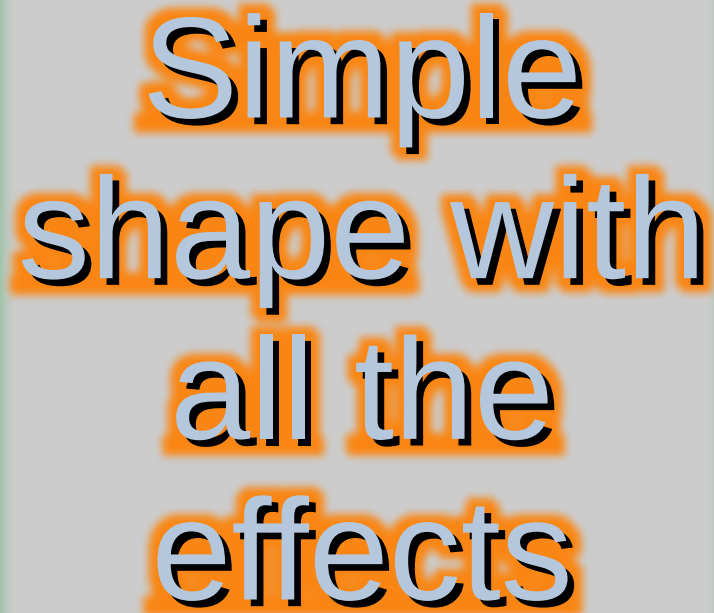


```
5 * This Source Code Form is subject to the terms of the Mozilla Public
6 * License, v. 2.0. If a copy of the MPL was not distributed with this
7 * file, You can obtain one at http://mozilla.org/MPL/2.0/.
8 */
9
10 #ifndef INCLUDED_DRAWINGLAYER_ATTRIBUTE_SDRGLOWTEXTATTRIBUTE_HXX
11 #define INCLUDED_DRAWINGLAYER_ATTRIBUTE_SDRGLOWTEXTATTRIBUTE_HXX
12
13 #include <drawinglayer/drawinglayerdllapi.h>
14 #include <tools/color.hxx>
15
16 namespace drawinglayer::attribute
17 {
18 class DRAWINGLAYER_DLLPUBLIC SdrGlowTextAttribute
19 {
20 private:
21     sal_Int32 m_nTextRadius = 0;
22     Color m_TextColor; // Includes alpha!
23
24 public:
25     SdrGlowTextAttribute(sal_Int32 nTextRadius, const Color& rTextColor);
26     SdrGlowTextAttribute();
27     SdrGlowTextAttribute(const SdrGlowTextAttribute&);
28     SdrGlowTextAttribute(SdrGlowTextAttribute&&);
29
30     bool operator==(const SdrGlowTextAttribute& rCandidate) const;
31
32     SdrGlowTextAttribute& operator=(const SdrGlowTextAttribute&);
33     SdrGlowTextAttribute& operator=(SdrGlowTextAttribute&&);
34
35     // data access
36     Color& getTextColor() const { return m_TextColor; }
37     sal_Int32 getTextRadius() const { return m_nTextRadius; }
38     bool isDefault() const { return m_nTextRadius == 0; }
39 };
40
41 } // end of namespace drawinglayer::attribute
42
43 #endif //INCLUDED_DRAWINGLAYER_ATTRIBUTE_SDRGLOWTEXTATTRIBUTE_HXX
44
45 /* vim:set shiftwidth=4 softtabstop=4 expandtab: */
46
```

## Using new TextGlowPrimitive for rendering text glow

- In the new object we have
  - TextColor - To create a custom color for the glow (which also include the transparency of the glow effect)
  - Transparency - To specify how much of the glow is visible
  - TextRadius - To specify the size of the glow (which is also depending from the font size) This is an approximate calculation similar to MSO text glow size which is:  
$$\text{Rendering\_glow\_size} = \frac{\text{Original\_glow\_size}}{(154.39 * \text{FontSize}^{-0.575})}$$

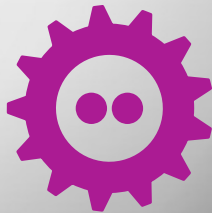


A large green square frame with a drop shadow is centered on the left side of the slide. Inside the frame, the text 'Simple shape with all the effects' is displayed in a white, bold, sans-serif font. Each word has a thick orange glow effect around it.

Simple  
shape with  
all the  
effects

## Using new `TextGlowPrimitive` for rendering text glow

- In which order we are rendering the different primitives/layers in a `Primitive2DContainer`:
  - 1) SubPrimitives such as the shape itself
  - 2) Glow effect of shapes - creating with `createEmbeddedGlowPrimitive()`
  - 3) `SoftEdge` - creating with `createEmbeddedSoftEdgePrimitive()`
  - 4) Add text - creating with `createTextPrimitive()`
  - 5) Glow effect of shapes – creating with `createEmbeddedTextGlowPrimitive()`, which we need to put before, shape glow and shadow
  - 6) Shadow on shapes – creating with `createEmbeddedShadowPrimitive()`



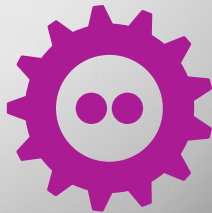
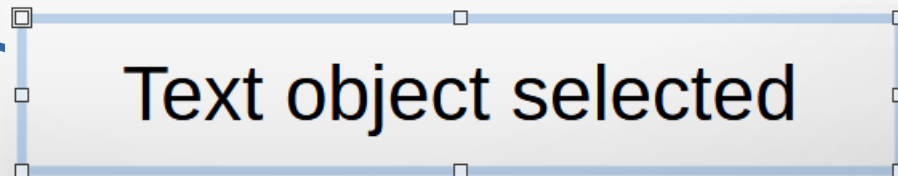
# Glow effect for texts in shapes



## Add new UI Glow Effect on sidebar for texts (Impress/Draw and Calc)

- A new TextEffectPropertyPanel object was created, which is on the Properties panel
- With the three main option: Radius, Color and Transparency can be setted
- The Text Effect Panel activates when an object (any objects with text frames) is selected

A screenshot of the 'Properties' sidebar in a software application. The sidebar is divided into several sections: 'Character', 'Paragraph', 'Area', 'Line', 'Text Effect', 'Shadow', 'Position and Size', and 'Columns'. The 'Text Effect' section is expanded, showing a 'Text Glow' sub-section with three settings: 'Radius' set to '0 pt', 'Color' set to 'Black', and 'Transparency' set to '0%'. A blue arrow points from the 'Text Effect' section of the sidebar to a text box in the next image.

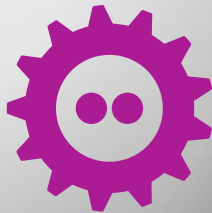


## Rendering text in edit mode without text glow effect

- In view mode we are rendering the glow effect as shown in this small video
- In edit mode we are rendering the simple text until we exit from the edit mode
- It works like this because in EditEngine the text glow effect is not supported

Simple  
shape with  
text glow  
effect

Simple  
shape with  
text glow  
effect in edi





# Glow effect for texts in shapes



- Import/Export ooxml files with Glow effect on texts in shapes (PPTX/XLSX)
- Import/Export odf files with Glow effect on texts in shapes

*Left side MS-PowerPoint*

*Right side LibreOffice Impress (before 25.2)*

**Test**

Examples with glow effects  
on texts

Subtitle with black background color and glow  
effect

Shape objects

T e s t

Examples with glow  
effects on texts



Shape objects

# Glow effect for texts in shapes



- Import/Export ooxml files with Glow effect on texts in shapes (PPTX/XLSX)
- Import/Export odf files with Glow effect on texts in shapes

*Left side MS-PowerPoint*

*Right side LibreOffice Impress (since 25.2)*

**Test**

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**Test**

Examples with glow  
effects on texts

Subtitle with black background color  
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Shape objects

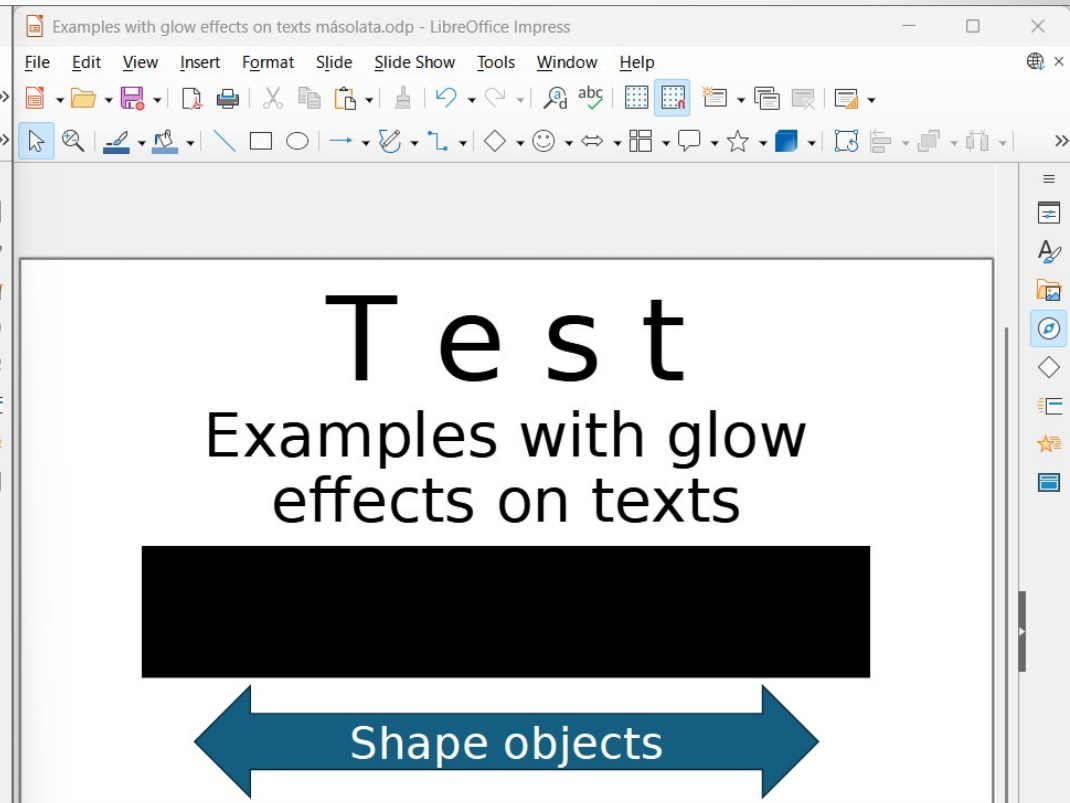
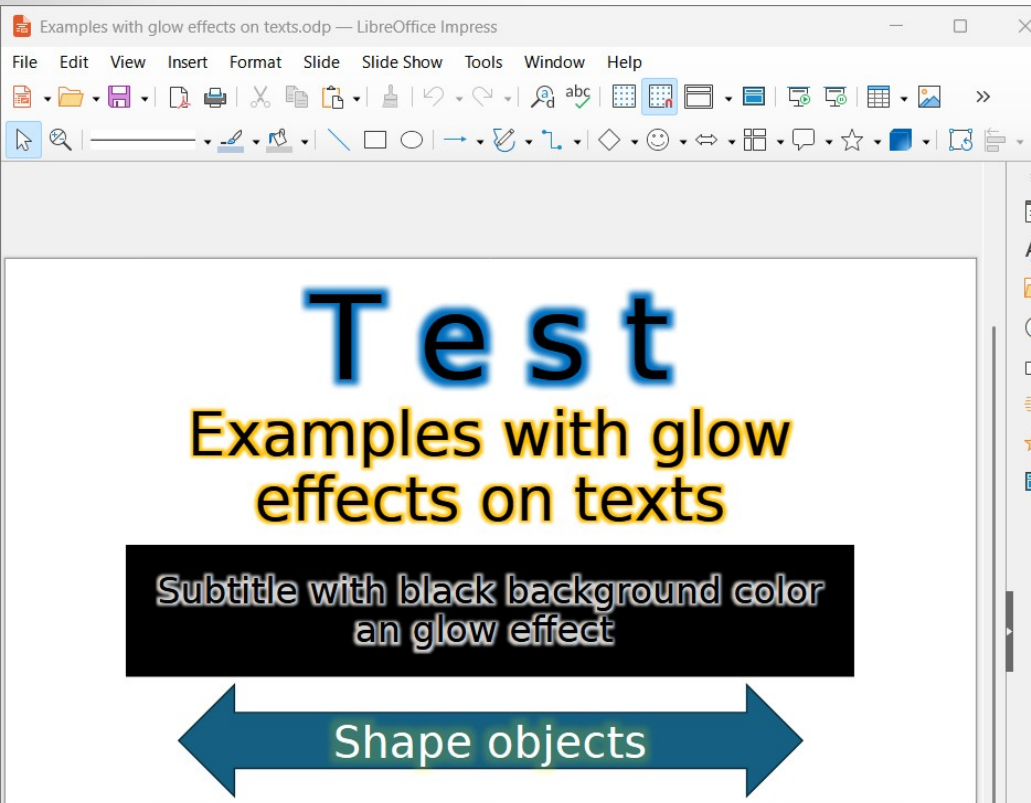
# Glow effect for texts in shapes



- Import/Export ODF files with Glow effect on texts in shapes

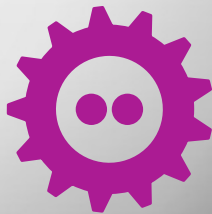
*LibreOffice Impress 25.2*

*LibreOffice Impress 24.8*

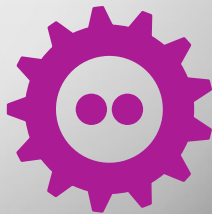


## Related patches

- <https://git.libreoffice.org/core/+3eac847927a0cdfa40c3fea38c473ed2ad7faecc%5E%21>
- <https://git.libreoffice.org/core/+5bb5a7ea60c4496d7ad21ad81a0f37f6f5fd2288%5E%21>
- <https://git.libreoffice.org/core/+b566dab48c1448dbc5442b30396e9f6c482f2408%5E%21>



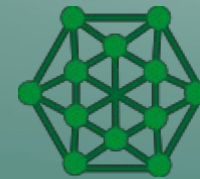
- *Thanks to SUSE who made this possible, now its available since LibreOffice 25.2*
- *Thanks to Armin Le Grand and Regina Henschel for their advice and reviews of the patches*



# Time for Questions

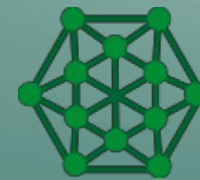
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Thank you for your attention!



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