



Wlepmeister

Desktop application for editing graphics with a layer system, created in Python.

About the project

Wlepmeister is a windowed application that is created as a Python tool. The project is developing iteratively, adding more functionalities.

Purpose

Creating an intuitive paint for creating graphics, collages, logos, flags, **stickers**, backgrounds, but unlike the famous paint, the added graphics can be edited selectively at every stage of editing.

Step 1: Basics

- **Main menu** with options to close and open new windows
- **Uploading Graphics** (PNG) from Disk
- **Display graphics** on the canvas
- **Move graphics** across the screen

Step 2: Canvas and Scaling

- **Defining the target size** - creating a white field with the specified dimensions
- **Automatically scaling** uploaded images to canvas size
- **Positioning** images within a defined field
- **Swiping in the area** - restricting movement to the boundaries of the canvas

Stage 3: Layer system

- **Layers panel** on the left side of the screen
- **Add layers** and switch between them
- **Ctrl+A shortcut** opens Windows Explorer to select the PNG file
- **Multiple Objects on a Layer** - Group Swiping
- **Deleting Objects** - One at a Time Despite Belonging to a Layer

Stage 4: Transformations

- **Rotate images** around their own axis
- **Object selection** - the active object is subject to transformations
- **Intuitive control** - click on image = select

Step 5: Export

- **Export menu** in the top bar

- **Background Selection:** Transparent or White
- **Output Formats:** PNG, SVG
- **Border radius** - rounded corners in the exported image
- **Layer Preservation** in the Final File

Stack

- **Python**
- **GUI Framework**
- **Graphics**
- **Export**

Roadmap

- Structure
- Window from the menu
- Upload and view graphics
- Move graphics across the screen
- Canvas with a defined size
- Automatic scaling to canvas
- Layer system
- Adding multiple files with Ctrl+A
- Move objects in a layer in bulk
- Delete objects
- Rotate images
- Export menu
- Export to PNG
- Export to SVG
- Border radius in export, transparency

Practice

- **Classes and OOP:** Layer, ImageObject, Canvas
- **Loops:** iterate over layers, objects, pixels
- **Conditions:** collisions, boundaries, input validation
- **Event handling:** clicks, drags, keyboard shortcuts
- **File I/O:** Loading and Saving Files
- **GUI programming:** layout, events, rendering