**RGB Generator**

**Overview**

The RGB Generator is an application designed to control RGB color outputs using a dual monitor setup. The primary screen is used to adjust settings, while the secondary screen, typically connected to a projector, displays the selected color. The application is built using Pygame and Tkinter for controlling colors and GUI interaction respectively.

**Features**

* **Dual Monitor Setup**: Control color on a secondary screen while adjusting settings on the primary screen.
* **Real-time RGB and Alpha Control**: Adjust Red, Green, Blue, and Alpha (transparency) values via sliders, manual buttons, or direct input fields.
* **User Notes and Logging**: Save RGB values, Alpha, and user notes along with timestamps to a log file.
* **Custom Screen Resolution**: Change the resolution of the display on the secondary screen.

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**Installation Guide for Windows**

**Step 1: Install Python**

1. Go to the [Python Downloads page](https://www.python.org/downloads/).
2. Download the latest stable version of Python for Windows.
3. Run the downloaded installer.
   * Make sure to select **"Add Python to PATH"** during the installation process.

**Step 2: Install Required Packages**

After installing Python, you need to install the necessary libraries. Open a Command Prompt and run the following commands:

pip install pygame

pip install tkinter

Note: tkinter is usually included with Python by default, but this command ensures it is available.

**Step 3: Download the RGB Generator Application**

1. Obtain the script file (RGB\_Generator.py) provided by the author.
2. Save it in a location that you can easily access.

**Step 4: Connect Your Monitors**

Ensure that you have two monitors connected to your system. The second monitor should ideally be a projector for best results.

**Step 5: Run the Application**

1. Open a Command Prompt.
2. Navigate to the directory where you saved the RGB\_Generator.py file.
3. Run the following command to start the application:

python RGB\_Generator.py

**User Guide**

**Control Panel**

* The main control panel will open on your primary monitor, providing sliders and buttons to control the RGB values and transparency of the color on your second monitor.
* **Adjusting Colors**: Use the sliders to adjust the **Red**, **Green**, **Blue**, and **Alpha** values.
* **Manual Controls**: You can also use the + and - buttons next to each color field for fine adjustments.
* **Entry Fields**: If precise values are required, manually enter them in the respective fields.

**Screen Size Adjustment**

* Use the dropdown menu to change the screen resolution for the projector display.

**Saving Configurations**

* Use the **Save to Log** button to save the current RGB, Alpha, and any notes you've added. This is helpful for documenting color settings.

**Exit**

* Use the **Exit** button on the control panel to cleanly close both the GUI and the projector display.

**Contributing**

Feel free to fork this repository and make any changes or improvements to the RGB Generator. Pull requests are always welcome.

**Contact**

If you have any questions or encounter any issues, please contact the creator of Vlads Test Target.

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