



Set generator

Application Architecture

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Main Components :

Core Files and Dependencies :

- [Makefile](#): Instructions for compiling and running the application.
- [.gitignore](#): Configuration for ignoring unnecessary files.

User Interface Modules :

- [menu.cpp](#): Implementation of the main menu and navigation between all programs.
- [scene.cpp / scene.h](#): Base class for various scenes in the application.
- [scene_builder.cpp / scene_builder.h](#): Creation and initialization of individual scenes.
- [scene_manager.cpp / scene_manager.h](#): Management and switching between scenes.
- [label.cpp / label.h](#): Management of labels and text elements on the screen.

Rendering and Graphics Modules :

- [render_controller.cpp / render_controller.h](#): Controller for rendering graphics.
- [parlcd.cpp / parlcd.h](#): Control of the LCD display.
- [mzapo_parcld.c / mzapo_parcld.h](#): Specific drivers for peripheral LCD devices.

Input Controller Modules :

- [input_controller.cpp](#) / [input_controller.h](#): Handling input from rotary knobs and buttons.
- [shared_data.cpp](#) / [shared_data.h](#): Shared data between different parts of the application.

Fractal Management Modules :

- [set.cpp](#) / [set.h](#): Classes for managing and computing the Mandelbrot and Julia sets.
- [colors.h](#): Management of fractal color schemes.
- [component.cpp](#) / [component.h](#): Basic components for rendering fractals.
- [font_prop14x16.c](#), [font_rom8x16.c](#), [font_types.h](#): Fonts and font types for rendering texts.

LED Control Modules :

- [leds_controller.cpp](#) / [leds_controller.h](#): Control of LEDs for displaying status and settings.
- [rgbled_controller.cpp](#) / [rgbled_controller.h](#): Control of **RGB** LEDs.

