

SHAPES MODULE

The module documentation

A module for managing component shapes

Author

Rômulo Peres de Moraes

Table of Contents

1. The purposes of this document.....	2
2. Shapes module.....	2
3. The layout of the documentation and the module.....	2
4. Interfaces.....	2
4.1. Public interfaces.....	2
ClockPixel (*getDigitShape(unsigned int digit))[3];.....	2
ClockPixel (*getColonShape())[3];.....	2
4.2. Private interfaces.....	3

1. The purposes of this document

This document has the purpose of describe the module and its interfaces with the goal of improve the Developer Experience (DX) once the developers have to create new features or even for maintenance.

2. Shapes module

The shapes module is a component from the Rclock that store and distribute the shapes of the digits and the colons. Whenever that a module needs a shape either of a digit or of a colon, this same module asks the shape to the shapes module. The returned value acts like a map to draw the digit/colon on screen.

3. The layout of the documentation and the module

The module is divided into two parts, the public code and the private code, they will be placed inside the directories public/ and private/ respectively. All private interface names shall begin with an underscore. The public interfaces may use the private interfaces, the private interfaces may use another private interfaces, however, a private interface can't use a public interface.

4. Interfaces

4.1. Public interfaces

ClockPixel (*getDigitShape(unsigned int digit))[3];

Purposes:

Once called, this function will return a 2D array of the shape referenced by the given digit.

Postconditions:

The 2D array returned from the function acts like a map to draw the shape on screen.

Special considerations:

There's two possible values inside the returned array, the macro COLOR, that represents a piece of the screen that have to be visible with whatever color, and the macro INVIS, that represents a piece of the screen that have to be invisible.

Both values must be used with two white spaces subsequently (" ").

ClockPixel (*getColonShape())[3];

Purposes:

Once called, this function will return a 2D array that represents the colon shape.

Postconditions:

The 2D array returned from the function acts like a map to draw the shape on screen.

Special considerations:

There's two possible values inside the returned array, the macro COLOR, that represents a piece of the screen that have to be visible with whatever color, and the macro INVIS, that represents a piece of the screen that have to be invisible.

Both values must be used with two subsequent white spaces (" ").

4.2. Private interfaces