PyGUI Documentation

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1 What is PyGUI?

PyGUI is a GUI library powered by pygame. PyGUI provides standard GUI elements which is drawn as pygame surfaces on a pygame window. The goal of this library is to provide a way to create a GUI app with pygame in a simple manner. PyGUI handles all the drawing, placings and event propagation on the pygame window. Custom elements can be created as classes that implement the render_element interface. PyGUI only rerenders elements that have changed their visual rendering which is defined by the programmer.

2 Documentation

2.1 Window

The window class represents a window application. It is powered by pygame. The window has a tree of window elements which it uses to render the window elements each frame. The tree is traversed with each element receiving events occuring and are tagged to be rerendered when their state has changed.

2.1.1 Class fields

Field name	Type	Description
width	int	Defines the width of the window in pixels
height	int	Defines the height of the window in pixels
windowtitle	str	The title of the window(show in the bar)
event_loop	function	Event loop of the window application. If not specified differently just calls render on its window elements.
screen	surface object	Surface object(PyGame object) which window elements are drawn on
window_elements	window_element	Tree of window elements which is traversed whenever the new frame starts.

2.1.2 Class methods

Method name	Parameters	Description
__init__		Initializes the class and pygame
__str__		String representation of the window class object
__repr__		String representation of the window class object in iterable objects
run		Runs the event loop of the application.