Configuration manager Specification

Configuration manager is a Pygame-UI configuration parser and handler used to configure components and their styles using XML configuration document. The configuration manager also manages the individual component styling using CSS-like properties.

Pygame-UI framework configuration handlers and classes

Vision

# Key Concept

The ConfigurationManager is a Pygame-UI utility that allows developers to manager the UI for their games/applications using XML markup. In order to make the UI visually attractive for the end user a lot of custom styling is required. ConfigurationManager allows for simple CSS-like styling for all components using an XML configuration file. ConfigurationManager also contains the data manager which would provide a way of data binding the components. The driving idea behind the ConfigurationManager is to reduce the need for programmatic initialization of UI components to the absolute minimum. ConfigurationManager would provide the possibility for creating a designer that would allow developers to use a visual tool to design their UI. This custom designer tool would provide the needed UI configurations.

Configuration Manager

# Architecture

The configuration manager is designed with the idea to have a single configuration file that drives the application UI configuration. This way a simple XML configuration can be provided to the application and the complex properties of the components would be initialized and handled using the configuration file. The manager takes the path to the XML configuration as a parameter in its constructor or initializes it from a default location. Then the configuration is loaded into memory and parsed on demand to reduce the overhead of parsing the data all at once. The developer needs to instantiate one single ConfigurationManager which would handle the initialization of styling managers and data managers for all components. Another important point is that the configuration manager can handle the parsing of all components as they are defined in the configuration and then instantiating them, which would be handled through the UIComponentCollection. This would be the feature that provides the developers with absolute black boxing model for creating all of their UI. Currently the configuration file has to be written manually but once a designer is developed that would handle the generation of the XML configuration and then would generate a template for initializing the UIComponentCollection with a single line of code by the developer.

# ConfigurationManager Class

Styling Manager

<http://www.w3.org/TR/CSS21/>