

FUI (Friend User Interface) - A White Paper

Abstract

The Friend Unifying Platform (FUI) is a JavaScript library designed to simplify and streamline the creation and management of user interfaces on the web. FUI introduces a modular and extensible framework that enables developers to build interactive and dynamic web applications efficiently. This white paper provides an overview of the key features and functionalities of FUI, highlighting its design principles and usage patterns.

1. Introduction

FUI is developed by Friend Software Labs AS as an open-source project under the GNU Affero General Public License. It aims to provide a cohesive and flexible approach to developing web-based user interfaces, emphasizing simplicity, extensibility, and ease of integration.

2. Architecture

2.1 Global Object

The core of FUI revolves around a global object, `window.FUI`, which serves as a central hub for managing classes, GUI elements, fragments, callbacks, and events.

2.2 Class System

FUI introduces a dynamic class system that allows developers to define and register custom classes for different GUI elements. These classes are created and managed through the FUI factory, providing a consistent and modular approach to UI development.

2.3 Class Loading

FUI supports dynamic loading of classes, allowing developers to include new UI elements on-the-fly. This feature enhances flexibility and reduces the need for extensive pre-loading, resulting in a more responsive user experience.

2.4 Event Handling

FUI provides a simple event handling system, enabling developers to register and manage callbacks for various events, such as clicks and keypresses. This promotes a decoupled and modular design, facilitating the creation of interactive and responsive applications.

3. Usage Patterns

3.1 Class Initialization

FUI automates the initialization of GUI elements by automatically converting markup into classes. Developers can define their own classes or use built-in ones, simplifying the process of creating and managing UI components.

3.2 Fragment Management

FUI includes a fragment system, allowing developers to define reusable pieces of markup. These fragments can be dynamically loaded and applied with optional replacements, promoting code reusability and maintainability.

3.3 Dynamic Styling

FUI supports dynamic loading of CSS stylesheets associated with specific classes. This ensures that the required styles are available when new UI elements are introduced, maintaining a consistent and visually appealing user interface.

4. Conclusion

FUI presents a powerful and extensible framework for developing web-based user interfaces. By promoting modularity, dynamic class loading, and event handling, FUI simplifies the process of creating interactive and responsive applications. Developers can leverage FUI to build efficient and scalable UIs, enhancing the overall user experience on the web.

For more detailed information, refer to the source code and documentation available under the GNU Affero General Public License.