

UITemplateEditorWindow Script Documentation

Overview

The **UITemplateEditorWindow** script is a part of the Unity UI Object Template Tool, which simplifies the creation, customization, and management of UI object templates within the Unity Editor. This script is responsible for creating a custom editor window that allows users to load, view, edit, and save UI object templates in JSON format. Additionally, it enables the customization of selected UI elements within the Unity Editor.

Features

- **Load JSON Data:** Allows users to load existing UI templates from a JSON file into the custom editor window.
- **Create New Template:** Enables the creation of new UI templates with default properties.
- **Customize Selected UI Element:** Permits users to select and modify the properties of a UI element within the Unity Editor.
- **Save JSON Data:** Saves edited JSON content back to the JSON file.
- **Instantiate Selected Template:** Instantiates a selected UI template in the Unity scene.

Usage

Opening the Custom Editor Window

To open the custom editor window, follow these steps:

- Launch the Unity Editor.
- Navigate to "Window" > "Custom" > "UI Template Editor."

Loading Existing UI Templates

- Click the "Load JSON Data" button to load existing UI templates from a JSON file.
- Select a template from the loaded data to edit its properties within the custom editor window.
- Make modifications to the JSON content as needed.

Creating New UI Templates

- Click the "Create New Template" button to create a new UI template with default properties.
- Specify the template's properties, including canvas settings and UI elements.
- Click "Save JSON Data" to save the newly created template to the JSON file.

Customizing Selected UI Elements

- Click the "Select UI Element in Scene" button to choose a UI element in the Unity scene hierarchy.
- Modify the selected UI element's properties (position, rotation, scale) in the provided fields within the custom editor window.

Saving Changes

- After making modifications to UI templates or selected UI elements, click the "Save JSON Data" button to save the changes back to the JSON file.

Instantiating UI Templates

- In the "Instantiate UI Template" section, click the "Instantiate Selected Template" button to create a new GameObject in the Unity scene based on the selected UI template's properties.

Script Components

- **CanvasProperties:** A class that defines properties for the canvas, including position, rotation, and scale.
- **UIElement:** A class that defines properties for UI elements, such as name, position, rotation, scale, type (e.g., Image, Button), text, image source, font style, and color.
- **UIObjectTemplate:** A class that represents the structure of a UI template, including the template name, canvas properties, and an array of UI elements.

Error Handling

The script includes error handling mechanisms to address issues related to JSON data loading, saving, and instantiation. Error messages are displayed in the Unity console to assist with troubleshooting.

Customization

You can customize the script to add additional features or properties to your UI templates and UI elements as needed. This script serves as a foundation for building a UI template management tool within your Unity project.

License

You are free to modify and use it in your Unity projects.