

# Unity - API Interface

A guide on interfacing with the DTLab API through the Unity Editor in order to retrieve models and projects from the graphDB for use in Unity projects.

- [Server Integration Basics](#)

# Server Integration Basics

## Introduction

The Unity Server Integration package comprises three main components: `LoginManager`, `LoginEditorWindow`, and `AuthTokenManager`. Together, these scripts provide a solution for authenticating Unity users, fetching data from a server, and managing authentication tokens within the Unity Editor.

- **LoginManager:** Responsible for interfacing directly with the server. It sends login credentials, retrieves user data, models, and projects.
- **LoginEditorWindow:** Provides a user-friendly GUI within the Unity Editor for users to input their credentials, initiate server requests, and view fetched data.
- **AuthTokenManager:** A utility class that centrally manages the authentication token, ensuring secure storage and easy access for server requests.

## Key Functionalities

### 1. User Authentication:

- Users can input their `username` and `password` within the `LoginEditorWindow`.
- Upon confirming, `LoginManager` sends the credentials to the server.
- Successful authentication returns a token, stored using `AuthTokenManager`.

### 2. Fetching Data:

- Once authenticated, users can fetch models, projects, and their user data via buttons in the `LoginEditorWindow`.
- The data retrieval is handled by `LoginManager`, which sends requests to the server using the token from `AuthTokenManager`.
- Fetched data is displayed within the `LoginEditorWindow`.

### 3. Token Management:

- `AuthTokenManager` provides a centralized way to store and retrieve the authentication token.
- The token is essential for making authenticated requests to the server after the initial login.

## Workflow

1. Open the `LoginEditorWindow` via `Tools > Login Manager` in the Unity Editor.
2. Input your `username` and `password`, then click "Confirm".
3. Upon successful login, the authentication token is stored.

4. Use the "Fetch Models/Projects" and "Fetch User Data" buttons to retrieve data from the server.
5. View the fetched data directly within the `LoginEditorWindow`.