

ClassDiagramGenerator

Generate PlantUML-compatible class diagrams from your Unity C# scripts.

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1. Introduction

ClassDiagramGenerator is a lightweight Unity Editor tool to generate UML class diagrams from all C# scripts in your `Assets/Scripts` folder. It outputs a PlantUML-compatible diagram, either as a `.puml` file or a shareable URL for PlantUML Online.

2. Installation

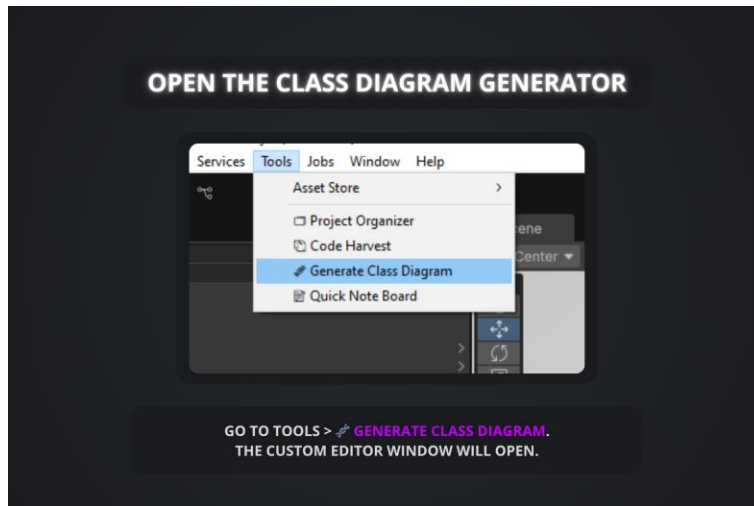
1. Place `ClassDiagramGenerator.cs` in the `Assets/Editor` folder of your Unity project.
2. Ensure your C# scripts to be documented are located in `Assets/Scripts`.

3. How it Works

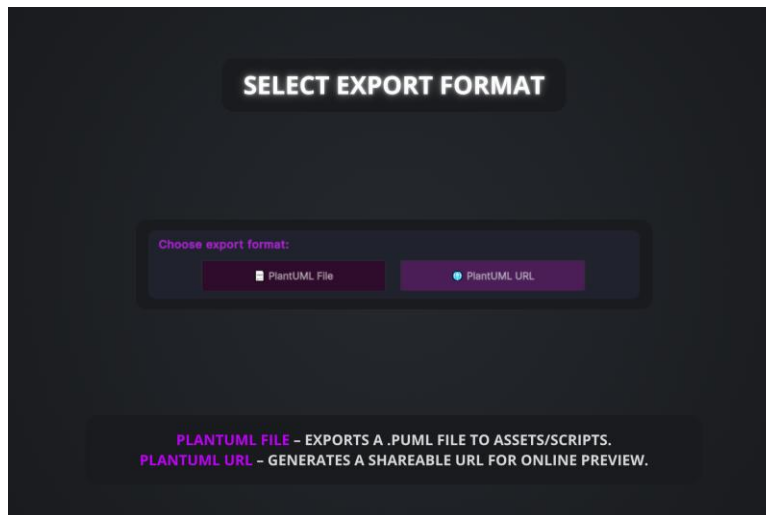
The script scans all `.cs` files inside `Assets/Scripts`, parses the class structures using regular expressions, and generates a PlantUML diagram representing classes, their members (fields, properties, methods), and inheritance.

6. Usage

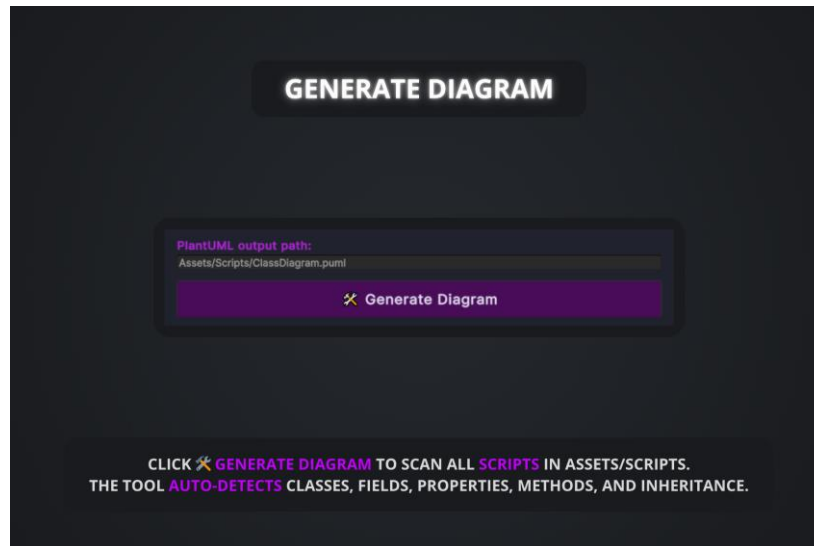
1. Open the Tool: In Unity, go to the top menu: Tools > 🚀 Generate Class Diagram.



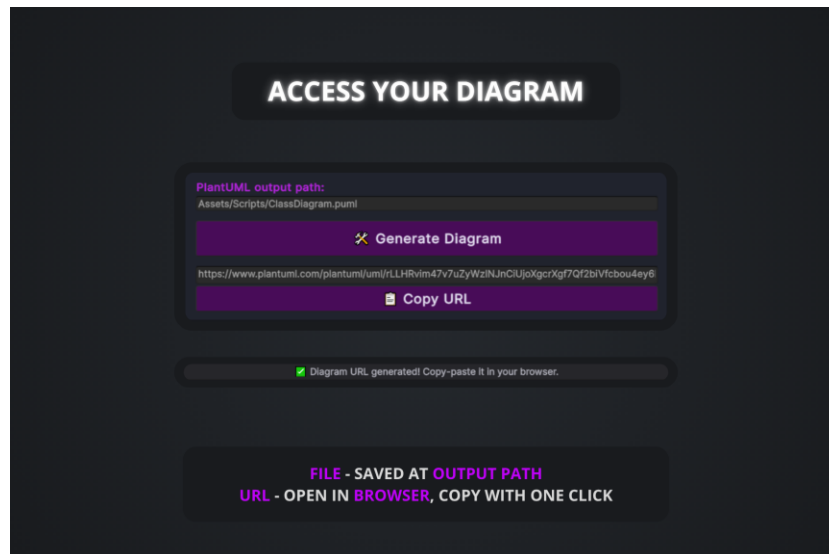
2. Select Export Format:
 - PlantUML File (.puml): The file is created at `Assets/Scripts/ClassDiagram.puml`.
 - PlantUML URL: A direct URL is generated for online viewing.



3. Generate the Diagram: Click on the 🛠️ Generate Diagram button.



4. Visualize: If you selected the URL option, copy the generated link and open it in your browser to view the diagram.



7. Features

- - Simple Unity Editor window (via Tools menu).
- - Automatically scans all C# scripts in `Assets/Scripts`.
- - Export as PlantUML file or PlantUML Online URL.
- - Displays and supports easy copy of the generated URL.
- - Detects classes, fields, properties, methods, and inheritance relationships.

8. Notes & Limitations

- - Only scripts in `Assets/Scripts` are processed.
- - Only standard C# class syntax is supported.
- - The script uses regular expressions for code parsing (edge cases may not be fully covered).
- - It does not delete, move, or modify your project files, only generates a diagram.
- - Overwrites any previous `ClassDiagram.puml` in the same folder.

9. FAQ

- Q: Does it modify my scripts or other project files?

A: No, it only reads script content and generates a diagram file or URL.

- Q: Can I use other folders?

A: No, only `Assets/Scripts` is scanned (unless you modify the code yourself).

10. Support

For questions, issues, or suggestions:

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11. License

MIT License

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