

Emoji System Base

Documentation

Creator: Lucas Gomes Cecchini

Online Name: AGAMENOM




































































































































































































Overview







































































































































































































































The **Emoji System Base** is an emoji library for **Unity**.







































































































































































































































With it you can add a whole list of emojis to your games as well as a tool to make editing **SpriteAsset** and **TMP_SpriteAsset** easier.






































































































































































































































Emoji to Unicode Converter
























































































































































































































<https://lingoam.com/EmojiUnicodeConverter>

Emoji	Unicode	Emoji	Unicode	Emoji	Unicode	Emoji	Unicode	Emoji	Unicode
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	1f605		1f602		1f923		263a		1f60a
	1f607		1f642		1f643		1f609		1f60c
	1f60d		1f970		1f618		1f617		1f619
	1f61a		1f60b		1f61b		1f61d		1f61c
	1f92a		1f928		1f9d0		1f913		1f60e
	1f929		1f973		1f60f		1f612		1f61e
	1f614		1f61f		1f615		1f641		2639
	1f623		1f616		1f62b		1f629		1f97a
	1f622		1f62d		1f925		1f636		1f624
	1f620		1f621		1f92c		1f92f		1f633
	1f975		1f976		1f631		1f628		1f630
	1f625		1f613		1f917		1f914		1f92d
	1f92b		1f610		1f611		1f62c		1f644
	1f62f		1f626		1f627		1f62e		1f632
	1f634		1f924		1f62a		1f635		1f910
	1f974		1f922		1f92e		1f927		1f637
	1f912		1f915		1f911		1f920		1f608
	1f47f		1f479		1f47a		1f921		1f4a9
	1f47b		1f480		2620		1f47d		1f47e
	1f916		1F383		1f63a		1f638		1f639
	1f63b		1f63c		1f63d		1f640		1f63f
	1f63e		1f44b		1f91a		1f590		270b
	1f596		1f44c		270c		1f91e		1f91f
	1f918		1f919		1F448		1F449		1F446
	1F595		1F447		261D		1F44D		1F44E
	270A		1F44A		1F91B		1F91C		1F44F
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	267B		2705		1F22F		1F4B9		2747
	2733		274E		1F310		1F4A0		24C2
	1F4A4		1F3E7		1F6BE		267F		1F17F
	1F233		1F202		1F6C2		1F6C3		1F6C4
	1F6C5		1F6B9		1F6BA		1F6BC		26A7
	1F6BB		1F6AE		1F3A6		1F4F6		1F201
	1F523		2139		1F524		1F521		1F520
	1F196		1F197		1F199		1F192		1F195
	1F193		1F522		1F0CF		1F3B4		1F004
	23CF		25B6		23F8		23EF		23F9
	23FA		23ED		23EE		23E9		23EA
	23EB		23EC		25C0		1F53C		1F53D
	27A1		2B05		2B06		2B07		2197
	2198		2199		2196		2195		2194
	21AA		21A9		2934		2935		1F500
	1F501		1F502		1F504		1F503		1F3B5
	1F3B6		2795		2796		2797		2716
	267E		1F4B2		1F4B1		2122		00A9
	00AE		3030		27B0		27BF		1F51A
	1F519		1F51B		1F51D		1F51C		2714
	2611		1F508		1F507		1F509		1F50A
	1F514		1F515		1F4E3		1F4E2		1F4AC
	1F4AD		1F5EF		2660		2663		2665
	2666		1F550		1F551		1F552		1F553
	1F554		1F555		1F556		1F557		1F558
	1F559		1F55A		1F55B		1F55C		1F55D
	1F55E		1F55F		1F560		1F561		1F562
	1F563		1F564		1F565		1F566		1F567

Script Explanations

Tools

Emoji System Editor

Here's a detailed explanation of how the `EmojiSystemEditor` script works, including its variables, methods, and usage:

Class and Variables:

- `EmojiSystemEditor`: Inherits from `EditorWindow`, allowing it to create a custom editor window in Unity's editor.
- `SerializedObject serializedObject`: Used for handling serialized properties, which allows the editor window to work with Unity's serialization system.
- `Vector2 scrollPosition`: Tracks the current scroll position of the editor window, allowing for scrolling when there are many GUI elements.
- `SpriteAsset spriteAssetEdit`: Represents the Sprite Asset to be edited if the `emojiType` is set to `Legacy`.
- `TMP_SpriteAsset TMP_spriteAssetEdit`: Represents the TMP (TextMeshPro) Sprite Asset to be edited if the `emojiType` is set to `TextMeshPro`.
- `Type emojiType`: Enum that determines which type of asset is being edited (`Legacy` or `TextMeshPro`).
- `float w, h, bx, by, ad, scale`: Variables for glyph metrics. These include width (`w`), height (`h`), horizontal bearing (`bx` and `by`), advance (`ad`), and scale (`scale`).
- `int atlasIndex`: Index of the atlas in which the sprite is located.
- `Texture spriteEdit`: The texture of the sprite being edited.
- `int size`: The size of the squares when cropping the image using the Python script.
- `string folderPath`: Path to the folder where the changes will be applied.
- `string pythonPath`: Path to the Python executable.
- `enum Type`: Defines two types of assets—`Legacy` and `TextMeshPro`.

Methods:

1. `ShowWindow()`: A static method to open the custom editor window. It also tries to load an icon for the window from the assets.
2. `OnEnable()`: Called when the editor window is initialized. Sets up the `SerializedObject` for handling serialized properties.
3. `OnGUI()`: Draws the GUI elements for the editor window. It includes:
 - **Asset Type Selection**: Allows users to choose between `Legacy` and `TextMeshPro` assets.
 - **Sprite Asset Fields**: Displays fields for selecting and editing the sprite assets based on the selected type.
 - **Glyph Metrics Editor**: Provides fields to edit glyph metrics such as width, height, and other parameters.
 - **Save and Apply Buttons**: Allows users to save the edited asset or apply changes to all objects in the scene (for TextMeshPro).

- **Sprite Editor**: Provides fields for selecting the sprite and its size, along with buttons to apply changes to a folder and select the Python executable.

4. **`SaveFile()`**: Saves the sprite or TMP sprite asset with updated glyph metrics. It uses **`UpdateGlyphMetrics()`** and **`SaveAsset()`** to apply changes and save the asset.

5. **`UpdateGlyphMetrics<T>(List<T> spriteGlyphTable)`**: Updates the metrics of glyphs in the provided glyph table. It sets custom metrics for each glyph based on the editor's inputs.

6. **`SaveAsset(Object asset)`**: Marks the asset as dirty, saves it, and refreshes the AssetDatabase to apply changes.

7. **`ApplyToAllObjects()`**: Applies the selected TMP sprite asset to all **`TMP_Text`** components in the current scene.

8. **`RunPythonScript(string folder)`**: Executes the Python script for processing the sprite. It sets up a **`ProcessStartInfo`** to run the Python script with the required arguments.

9. **`GetPython()`**: Opens a file panel to select the Python executable. Updates the **`pythonPath`** variable with the selected path.

Usage:

1. **Open the Editor Window**: Go to the Unity menu bar and select **`Window`** > **`Emoji System Editor`** to open the custom editor window.

2. **Select Asset Type**: Choose between **`Legacy`** or **`TextMeshPro`** to determine which type of sprite asset you are editing.

3. **Edit Sprite Assets**: Depending on the selected asset type, you can select and edit the sprite asset and its glyph metrics.

4. **Save Changes**: Click the "Save Asset" button to apply changes to the selected sprite asset.

5. **Apply Changes to Scene**: If using TextMeshPro, use the "Apply to Scene" button to apply changes to all relevant **`TMP_Text`** components in the scene.

6. **Process Sprites**: Use the "Apply to Folder" button to select a folder and run the Python script to process the sprite image.

7. **Select Python Executable**: Click the "python.exe" button to select the Python executable used for running the script.

This script is a comprehensive tool for managing and editing sprite assets and their glyph metrics, integrating both Unity editor functionalities and Python scripting for advanced image processing tasks.

crop_image.py

Here's a detailed explanation of the Python script that cuts an image into smaller squares and saves them:

Overview:

This script takes an image file, divides it into smaller square sections of a specified size, and saves these sections as individual PNG files in a designated folder.

Imports:

- ``sys``: Provides access to command-line arguments and system-specific parameters.
- ``os``: Provides a way to interact with the operating system, such as creating directories.
- ``Image`` from ``PIL``: The Python Imaging Library (Pillow) is used for opening, manipulating, and saving image files.

Function: ``cut_image_into_squares``

Parameters:

- ``image_png``: Path to the input image file.
- ``square_size``: The size of each square section (in pixels).
- ``destination_folder``: The folder where the cropped squares will be saved.

Steps:

1. Open the Image:

```
img = Image.open(image_png)
width, height = img.size
```

- Opens the image file specified by ``image_png`` and retrieves its dimensions.

2. Calculate Number of Squares:

```
number_squares_horizontal = width // square_size
number_squares_vertical = height // square_size
```

- Determines how many squares fit horizontally and vertically in the image.

3. Create Destination Folder:

```
if not os.path.exists(destination_folder):
    os.makedirs(destination_folder)
```

- Checks if the ``destination_folder`` exists. If not, it creates the folder.

4. Loop Through and Crop Squares:

```
for j in range(number_squares_vertical):
    for i in range(number_squares_horizontal):
        left = i * square_size
        top = j * square_size
        right = left + square_size
        bottom = top + square_size

        square = img.crop((left, top, right, bottom))
        file_name = f'square_{j}_{i}.png'
        destination_path = os.path.join(destination_folder, file_name)
        square.save(destination_path)
```

- Iterates over the calculated number of squares.

- For each square, calculates its coordinates and crops the image accordingly.
- Saves each cropped square to the ``destination_folder`` with a filename indicating its position.

5. Print Success Message:

```
print("Images successfully applied to folder.")
```

- Outputs a message indicating that the operation is complete.

Main Execution Block:

```
if __name__ == "__main__":  
    if len(sys.argv) != 4:  
        print("Usage: script.py <image_path> <square_size> <destination_folder>")  
        sys.exit(1)  
  
    image_path = sys.argv[1]  
    square_size = int(sys.argv[2])  
    destination_folder = sys.argv[3]  
  
    cut_image_into_squares(image_path, square_size, destination_folder)
```

- Check Command-Line Arguments:

- Ensures that exactly three arguments are provided: the image path, the square size, and the destination folder.
- Prints a usage message and exits if the arguments are incorrect.

- Retrieve Arguments:

- Assigns the command-line arguments to ``image_path``, ``square_size``, and ``destination_folder``.

- Call the Function:

- Calls ``cut_image_into_squares`` with the provided arguments to perform the image processing.

Usage:

To use this script, run it from the command line with the following syntax:

```
python script.py <image_path> <square_size> <destination_folder>
```

- ``<image_path>``: Path to the image file to be processed.
- ``<square_size>``: Size of each square section (in pixels).
- ``<destination_folder>``: Folder where the resulting squares will be saved.

This script is useful for splitting large images into smaller, manageable pieces, which can be helpful in various applications like texture atlases or image processing tasks.