Arthemy
Development

Localization Tool

Documentation

Quick instructions

There are 3 main elements in the tool:

- The *Editor Tool* window
- The *Localization Manager* prefab
- The *Localization Object* component

The Editor Tool window can be found in ArthemyDevelopment/LocalizationTool/EditorTool, where you can create, open and modify language files. The files must be in JSON, CSV, or STRINGS formats. You can also add the *Localization Object* component to the objects in your scene and assign a *key*

The *Localization Manager* prefab is where you will add your language files to the tool, these files must be in the *Streaming Assets* folder. To add files to the list you can drag & drop them or write the language and the file name manually. You can create these files with the *Editor Tool* or with external tools

The *Localization Object* component will do all the work for you, you need to add it to every object that is going to be localized and set the *key,* you can do this manually or with the *Editor Tool.*
After adding the component you need to select the type of object you want to localize and diferent options will be shown to you deppending on the object you select, for a detail explanation on every option go to the *Localization Object* section in the documentation.

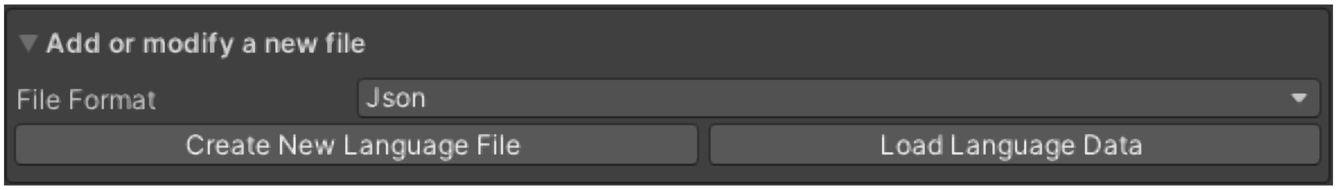
As soon as you import the tool in to your project, you will need to move the "*_StreamingAsset*" folder inside "*ArthemyDevelopment*" to the *Assets* folder and delete the "_". This is because Unity don't let you include the folder in the store package.
If you download the tool from Itch.io, this is not required.

If you have any issue or question about the tool or want to reuse the code of my tool to create your own please contact me at arthemydevelopment@gmail.com.

Editor Tool

The Editor Tool window is divided into two sections, File Management and Object Management.

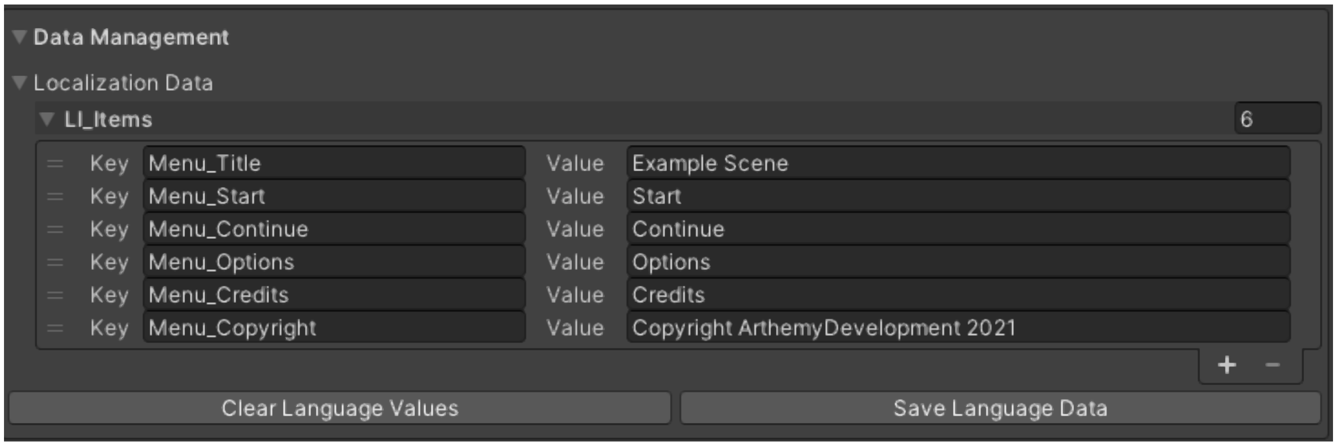
In File Management you can create, load, or save the language files you will use in your project. If you are going to load a file, you must first select the file format and make sure it is in the Streaming Assets folder.



Add or modify a new file

File Format: Json

After that, a list of the elements in the file will appear. The left column contains the keys, this are the reference values used to define the objects. The right column contains the values, this is the text that will be set in the objects.



Data Management

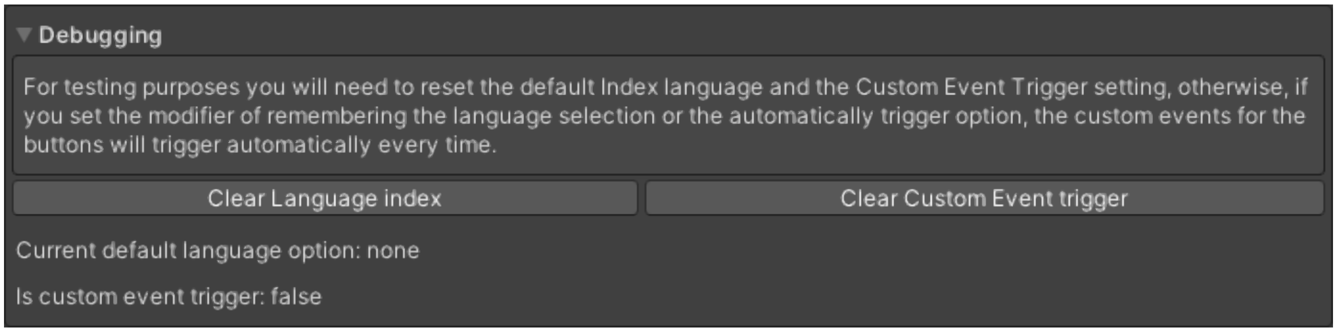
Localization Data

LI_Items: 6

Key	Menu_Title	Value	Example Scene
Key	Menu_Start	Value	Start
Key	Menu_Continue	Value	Continue
Key	Menu_Options	Value	Options
Key	Menu_Credits	Value	Credits
Key	Menu_Copyright	Value	Copyright ArthemyDevelopment 2021

If you already have a loaded file, or you create one, the Clear Language Values and Save Language Data buttons will appear, the first one erase all the values from the file, but the keys will remain. With this, you can create template files for future languages. The second one allows you to save your changes into the same file or a new one.

The Remember Configuration of the language selection option and the Trigger Automatically of the custom event option in the Localization Object store these options in a PlayerPref. You can see these values or reset them in the Debugging foldout



Debugging

For testing purposes you will need to reset the default Index language and the Custom Event Trigger setting, otherwise, if you set the modifier of remembering the language selection or the automatically trigger option, the custom events for the buttons will trigger automatically every time.

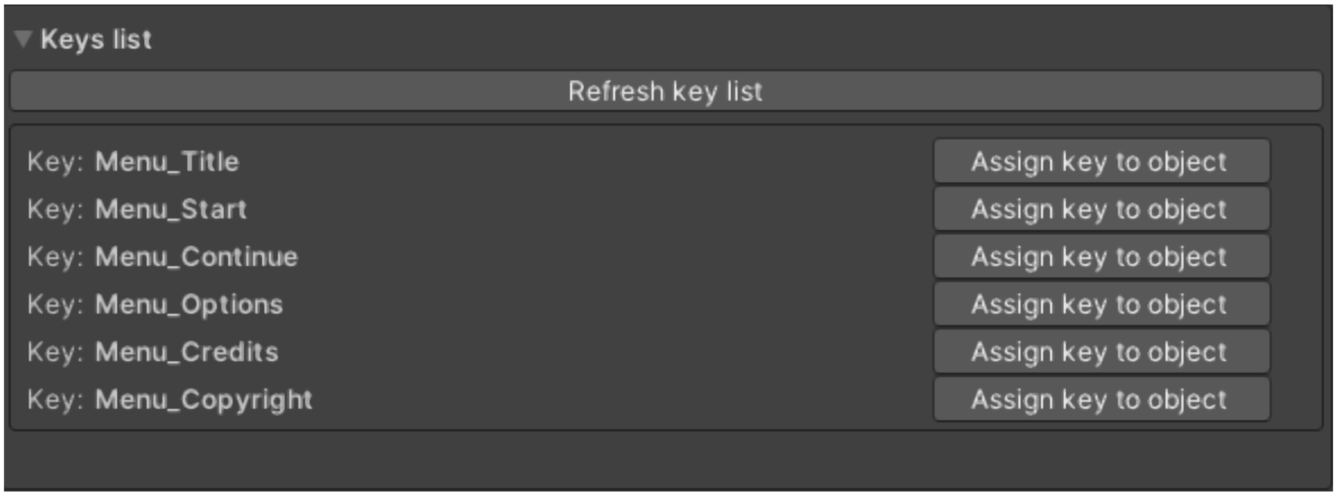
Current default language option: none

Is custom event trigger: false

Editor Tool

In Object Management you can assign the Localization Object component and a specific key to any object in your scene.

After you create a file or load one, you can update the key list. Here you can see all the existing keys in your file.



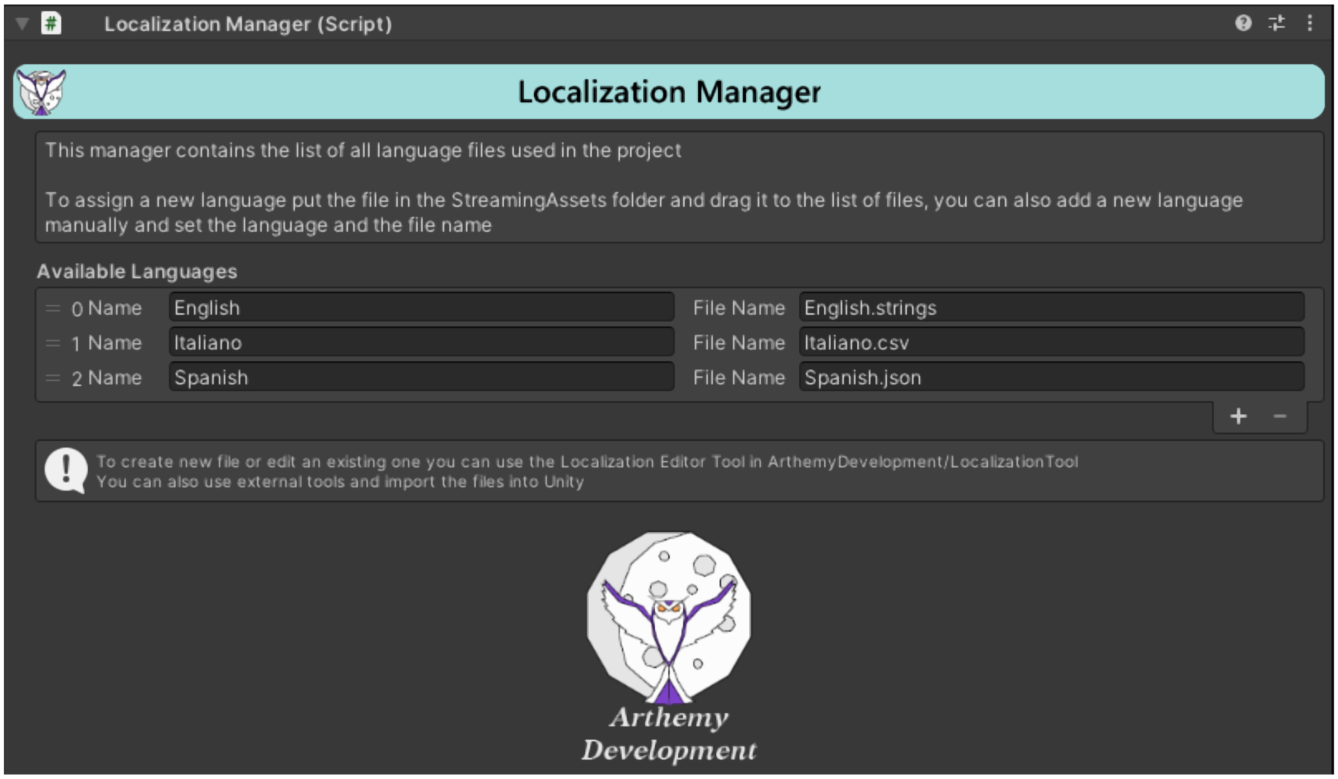
Key: Menu_Title
Key: Menu_Start
Key: Menu_Continue
Key: Menu_Options
Key: Menu_Credits
Key: Menu_Copyright

To add the Localization Object component and assign the key select the object in your scene and press the Assign key to object button

Localization Manager

The Localization Manager prefab contains the Localization Manager component, you can add this component to another object or put the prefab in your scene. The component has the DontDestroyOn-Load behavior and must be instantiated in the first scene of your game.

In the language list, every file contains an index value, this value is used to set the active language with the Localization Object component, the name of the language, and the file name in the Streaming Asset folder.



This manager contains the list of all language files used in the project

To assign a new language put the file in the StreamingAssets folder and drag it to the list of files, you can also add a new language manually and set the language and the file name

Available Languages

0 Name	English	File Name	English.strings
1 Name	Italiano	File Name	Italiano.csv
2 Name	Spanish	File Name	Spanish.json

To create new file or edit an existing one you can use the Localization Editor Tool in ArthemyDevelopment/LocalizationTool
You can also use external tools and import the files into Unity

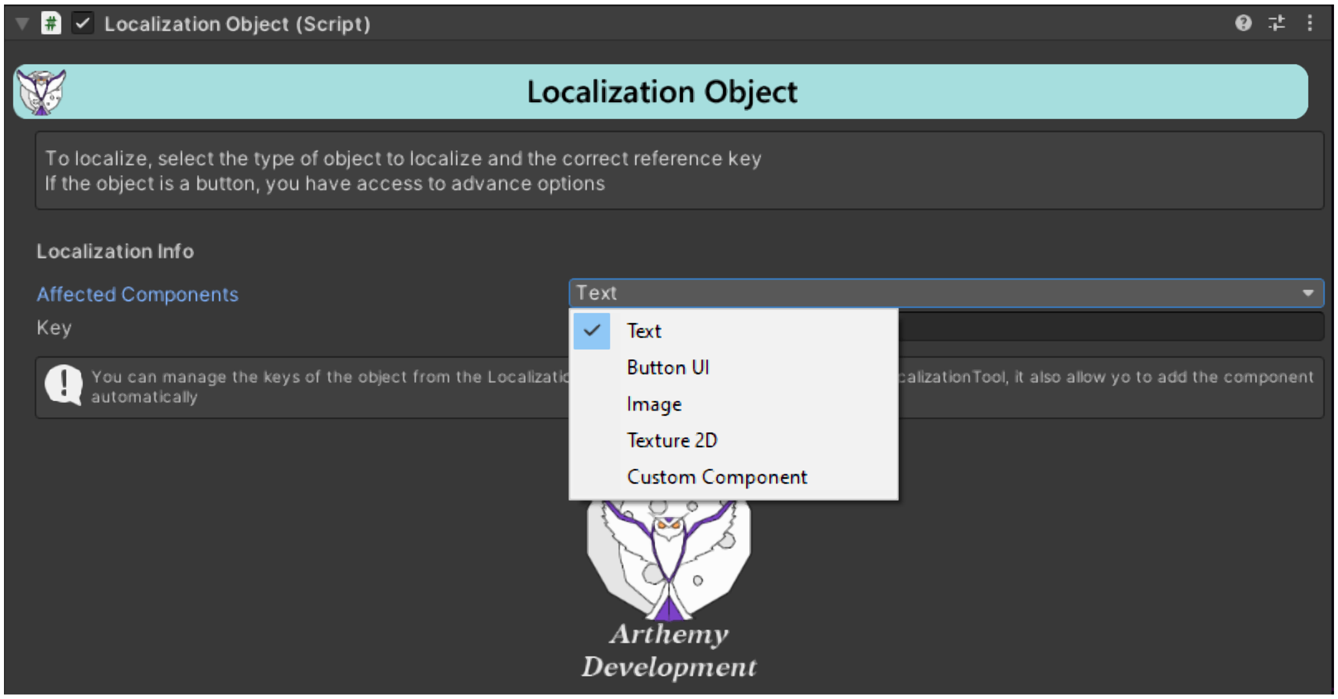
To add language files you can drag & drop them from the Streaming Asset folder or write the language and the file name manually.

If you wish you can reorder the languages index dragging them in the list. This is useful if you want to have a specific index value order for the languages.

Localization Object

The Localization Object component is the main element in the tool, this component is where you will configure everything to localize the objects in your scene.

The first thing you need to select is the type of object you are localizing and the reference key.



Localization Object (Script)

Localization Object

To localize, select the type of object to localize and the correct reference key
If the object is a button, you have access to advance options

Localization Info

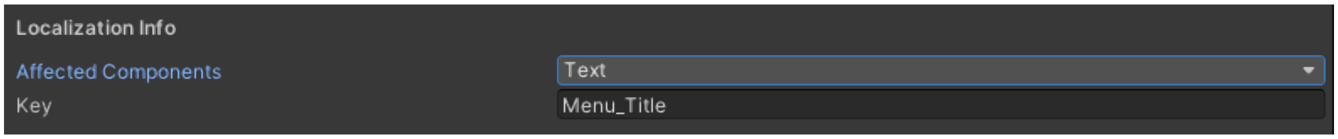
Affected Components: Text

Key

You can manage the keys of the object from the Localizatio... ...alizationTool, it also allow yo to add the component automatically

The supported object types are
- TMPro Text
- UI Button
- UI Image
- Texture 2D
- Custom Component

For the TMPro Text, the value of the key must be the translated text you want to use



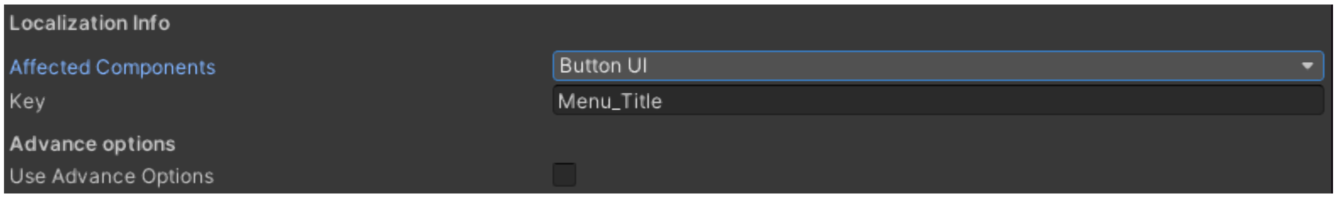
Localization Info

Affected Components: Text

Key: Menu_Title

Localization Object

For UI Button the value of the key must be the translated text that is gonna be on the TMPro text as a child in the button object.



Localization Info

Affected Components	Button UI
Key	Menu_Title

Advance options

Use Advance Options	☐

You will also have acces to advance options for the button, these options are:

Language Selection: This option allow you to use the button to set the active language in your game, with this you don't need a reference key and the text in the button will be the language name you put in the Localization Manager component, instead you need to use the language index value. You can also set it to remember the selected language between sessions, this will automatically set the language when the button is enabled, also you can assign methods to be triggered in the OnLanguageSelection() event.

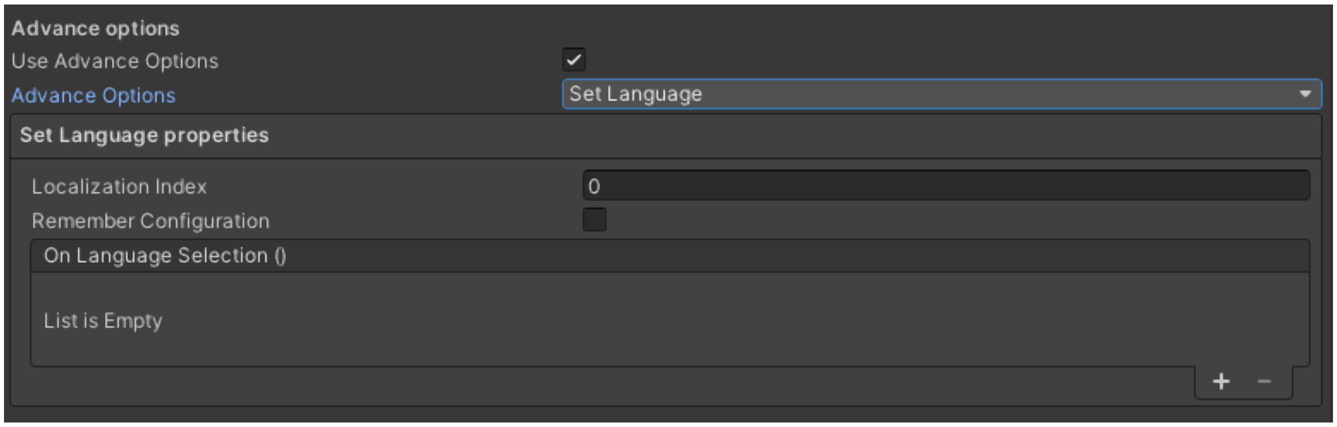
The difference between this event and the OnClick() event on the button component is:

- All the methods in the OnLanguageSelection() will be triggered at the end of the OnClick() event

- In case you check the Remember Configuration options, only the events in the OnLanguageSelection() will be triggered when the button is enabled. The OnClick() events of the button will not be triggered.

If you will let the Remember Configuration option disable, you can use this event to have a better organization in your project if you want.

To change the language in runtime, you will need to call the ClearPlayerPrefKey method in the Localization Object script.



Advance options

Use Advance Options	✓
Advance Options	Set Language

Set Language properties

Localization Index	0
Remember Configuration	☐

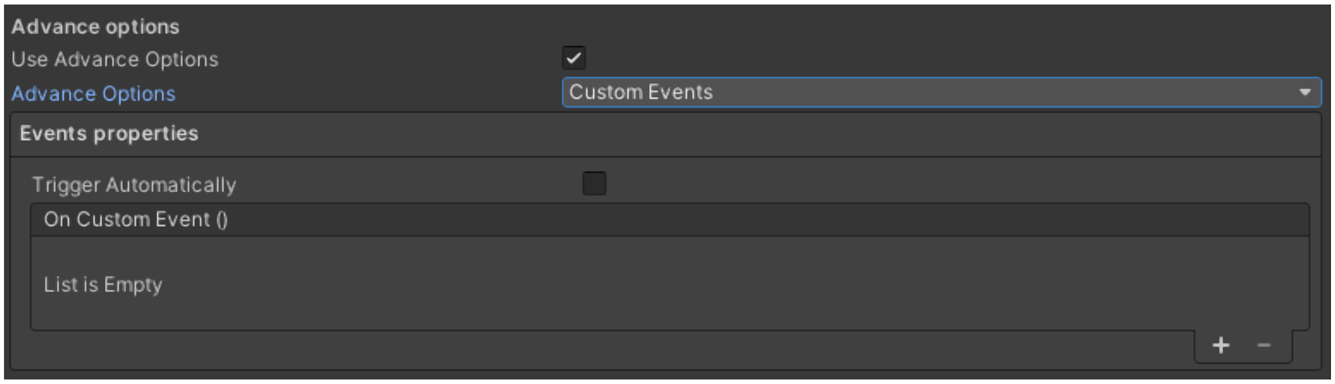
On Language Selection ()

List is Empty

Localization Object

Custom Events: This option works similar to the Language Selection option, but allows you to have only the custom event option, this event works the same as the OnLanguageSelection() event of the Language Selection option.

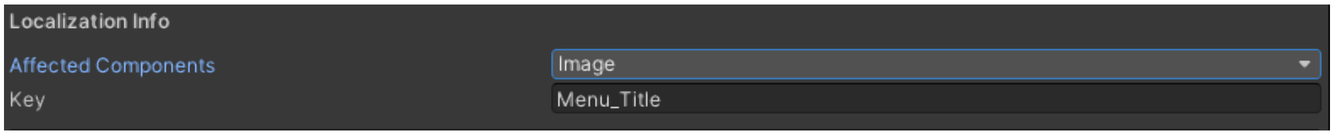
To reset the Trigger Automatically value in runtime you need to call the ClearCustomEventTrigger method in the Localization Object script



Advance options
Use Advance Options ✓
Advance Options: Custom Events
Events properties
Trigger Automatically
On Custom Event ()
List is Empty

For the Image, the image you are going to localize needs to be in the Resources folder and the reference key must be the file name in the folder, if you are using a subfolder, you need to add them to the key as well.

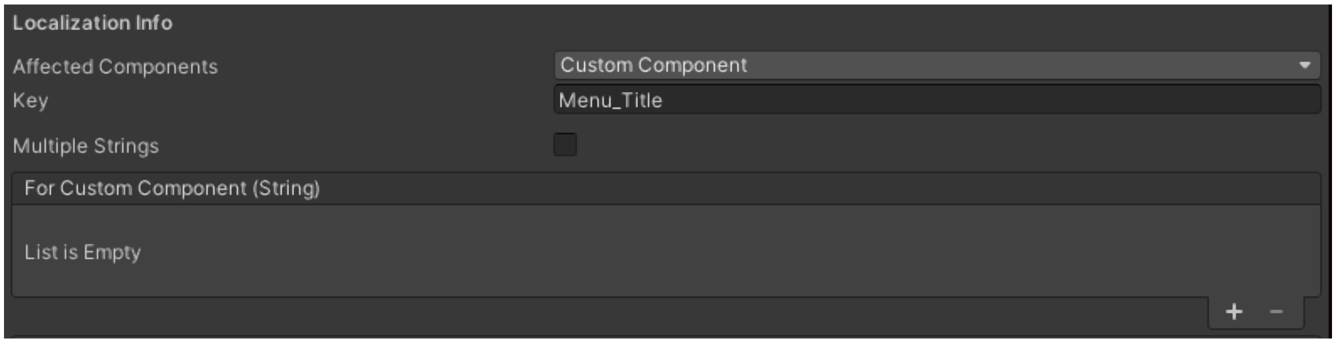
For example, if the image you are going to localize is a png file named Title in a subfolder named Menu, the keys value must be "Menu/Title". The image format is not needed



Localization Info
Affected Components: Image
Key: Menu_Title

Localization Object

The last option is the Custom Component type, this option allows you to integrate this tool with a custom system, a dialog system for example, easily.
To use it, you need to have a method in your script with a string parameter that needs to be added to the ForCustomComponent() event.



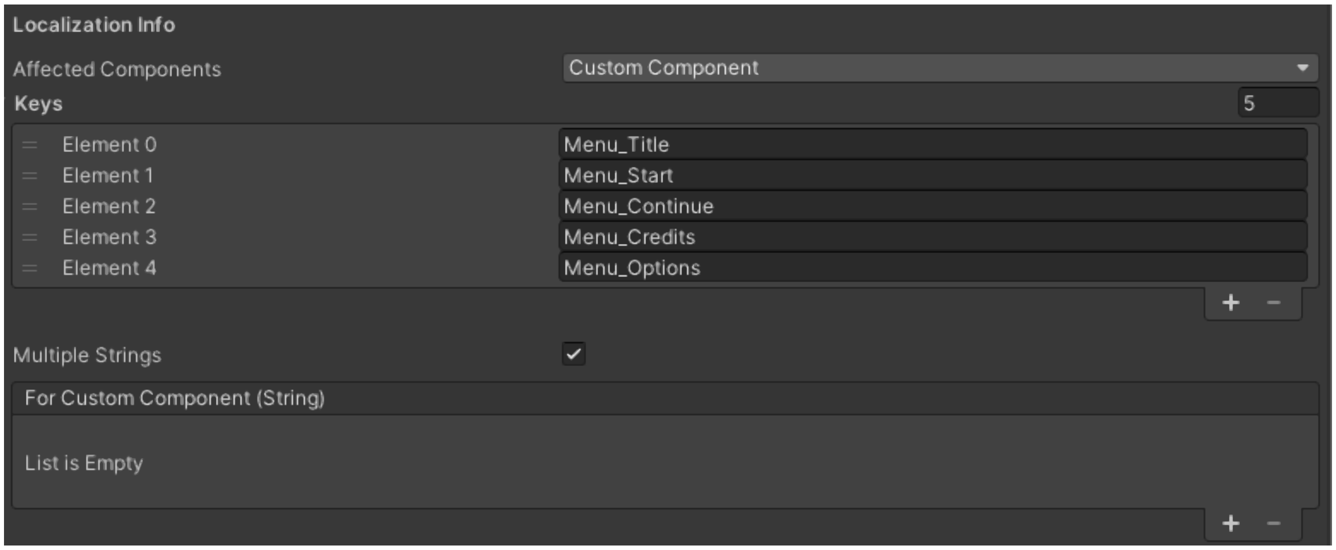
Localization Info

Affected Components	Custom Component
Key	Menu_Title
Multiple Strings	☐

For Custom Component (String)

List is Empty

In case you need to add multiple values, you can toggle the Multiple String option, this allows you to have a list of keys instead of a single one, the keys can be added manually or with the Editor Tool window just like any other Localization Object component.



Localization Info

Affected Components	Custom Component
Keys	5
Element 0	Menu_Title
Element 1	Menu_Start
Element 2	Menu_Continue
Element 3	Menu_Credits
Element 4	Menu_Options
Multiple Strings	✓

For Custom Component (String)

List is Empty

If you are using this last option, be aware that you will need a way to clear the values in your system when you change the active language

Tips and other info

For the reference keys, I recomend using an ENUM for the values, this will prevent any typo and let you keep track of every key you are using an make sure all the files contain that key.

This tool is not ment to be used in big projects, however it could perfectly work no mater the size of your game, just make sure everything is organized and you keep track of every key and every object that will be localized.

I recommend to have one specific member of your team to handle the tool and take care of its implementation in your project.

In case you are using CSV or STRINGS format, consider that the tool read only the first two columns, that means that you could use a third one for the reference text to translate if you need it, you could also use values only for organization and ignore them in the tool, for example, the first value of the columns to specify what that column is.
However, when saving the file, only the values that the tool reads are the values it will save.

Once you buy this tool, feel free to use it in as many projects as you want, just please don't share it with more people unless you ask me first, I want to keep the tool as cheap as possible because is not my goal make much profit from it, but it still has a lot of work behind it.

If you are a student and want to use the tool for your projects please contact me at via email through your student email asking for it and I will send you a free copy. As I mention it isn't my goal to make much profit from this tool and if as a student you think you could made good use of it I will be glad to help you.

If you need to modify the tool to adapt it to your systems, feel free to do it, I tried to make it modular and compatible with other systems, but is imposible without making it more complex and with a lot more of work that I could aford to.

Feel free to study the code of the tool to learn how it works, but if you want to copy my code to make your own tools, please contact me via email first, I don't mind to peolple reuse my codes, but I would like if you ask first, specialy if you want to profit with the tool you could made