Supplemental Materials

The tables with localization tools are structured using the following categories: *Name* – the name of the localization tool; *Developer* – the information found under the developer (or similar phrasing) information of the tool page; *Price* – the price listed in the tool library, with prices in US Dollar; *Category* – the specific category where the tool is located within; and *Keyword(s)* – the keywords used to find the tool in question through the search function.

Furthermore, in connection to each tool in the tables the following information is provided: (1) a summary/description of the tool copied from the tool library page; (2) a direct link to the tool's library page; and (3) a note whether the tool is classified (by the author) as tool facing (i.e. integration tools, adding functionality) or user facing (for content production, with a GUI for specific tasks).

All tools are found using the search query described in the method chapter, except for the Unity tool library where a specific localization tool category exists. Due to the larger number of localization tools in the Unity tool library, the table does not contain any descriptions of the specific tools.

Localization tools in Construct tool library

Link to Construct Addons: https://www.construct.net/en/make-games/addons

Name	Developer	Price	Category	Keyword(s)
c3-i18next	**Viktor Nagy**	**Free**	**Plugins**	**Translat***
A translation plugin for Construct 3 built on top of i18next. **Link:** https://www.construct.net/en/make-games/addons/249/c3-i18next **Classified as tool facing tool**				
Google Translate	**EMI INDO**	**Free**	**Plugins**	**Translat***
Cordova Plugin that implements MLKit Translation and Language Identification features. Supports both iOS and Android. **Link:** https://www.construct.net/en/make-games/addons/508/google-translate **Classified as tool facing tool**				

Total number of User facing tools: 0

Total number of Tool facing tools: 2

Localization tools in CryEngine tool library

Link to CryEngine Marketplace: https://www.cryengine.com/marketplace

No localization tools were found in the CryEngine tool library.

Localization tools in GameMaker tool library

Link to GameMaker Marketplace: https://marketplace.yoyogames.com/

Name	Developer	Price	Category	Keyword(s)
Auto Multilanguage	**Game Lab**	**USD 0.99**	**Scripts/Other**	**Translat*, Language***
This simple script allows you to easily create your own games multilanguage! The script works on all platform (Windows, Mac, Android, iOS, Tizen etc.). **Link:** https://marketplace.yoyogames.com/assets/645/auto-multilanguage **Classified as tool facing tool**				
Arabic Support	**Diaax Studios**	**Free**	**Scripts/Other**	**Language***
Having problems with writing Arabic texts in your game? We suggest this first of its type, solution. Featuring : An easy way to use, just call the function adjust_arabic_text() with string you want to display. Fully commented code. Can be modified for similar languages like Persian and Urdu. Possibility to merge words with Arabic letters and others with Latin letters without getting a spaghetti. We appreciate any comments or problems reporting. **Link:** https://marketplace.yoyogames.com/assets/2415/arabic-support **Classified as tool facing tool**				
Easy_localization	**AoD**	**Free**	**Scripts/Other**	**Locali*, Language***

With 'Easy Localization' you can have your game in multilanguage in few and simple steps: Define the strings your game will use and put them in the 'lang_XX' scripts, one for each language you use, where XX are each one of the languages codes. Call 'scr_initialize_localization' for the first time. Call 'scr_localize(string_code)' to get a localized string, you can use it with any draw_text function. Call 'scr_set_language(code)' to change current language to localize. Any number of languagues you want. If you use a language with special chars as: á, é, í, ñ, etc. you'll need to create a font that contain this characters. **Link:** https://marketplace.yoyogames.com/assets/1048/easy_localization **Classified as tool facing tool**				
Easy Localization Engine	**White Rabbit Games**	**USD 0.99**	**Extensions**	**Locali*, Language***
Do you have problems with localizations? Well, this is the perfect soluation for you. Easy to use, you can add as many languages as you want. Useable in any OS **Link:** https://marketplace.yoyogames.com/assets/2166/easy-localization-engine **Classified as tool facing tool**				
jTranslate	**Chaserrx**	**Free**	**Scripts/Input / Output**	**Translat*, Language***
Translate text easily! This extension can make translating so much easier! All you have to do is create the language files and easily incorporate the 3 simple functions into your existing projects. jTranslate does the rest of the work! View the included readme file for a complete guide on how to use jTranslate. **Link:** https://marketplace.yoyogames.com/assets/4261/jtranslate **Classified as tool facing tool**				
Multilanguage and Translate	**Tizzio**	**USD 1.99**	**Projects**	**Locali*, Translat***
Multiplatform (Desktop and mobile). Translates in all languages with MyMemory Translate. Available in realtime or in Pre-Release. Save and Load translations in the device. Editable translations with simple language files. Load language files from your website (so you can update translations after game release). Human translations has priority over Google Translate ones. allows users to take part actively in the translation process of your games. Simple to use. automatic translate doesn't work with HTML5, because of Cross domain origin security, but you can translate your game in pre-release and download translations from an url of your website **Link:** https://marketplace.yoyogames.com/assets/317/multilanguage-and-translate **Classified as tool facing tool**				
Multilingual Strings	**Neko no bokkusu**	**USD 4.99**	**Projects**	**Locali*, Language***
This is an easy way to localize a game. It loads a file ".csv" in a format like: "Translation ID";"de-DE";"fr-FR";"en-US";"es-ES";"LANG";"Comment" The file can be created with a simple text editor, BabelEdit or Excel. Load the file with the function multilingual_load(fname) and get the string in a language with multilingual_string (ds_map,language, translation_id, default language) multilingual_load reads a filename and returns a ds_map. multilingual_string finds the string in the ds_map and if a language it's empty, it replaces it with the default language's string **Link:** https://marketplace.yoyogames.com/assets/8969/multilingual-strings **Classified as tool facing tool**				

Total number of User facing tools: 0

Total number of Tool facing tools: 7

LOCALIZATION TOOLS IN GODOT TOOL LIBRARY

Link to Godot Asset Library: https://godotengine.org/asset-library

Name	Developer	Price	Category	Keyword(s)
GUI Translation Demo	**Godot Engine**	**Free**	**Demos**	**Translat***
A demo showing how Godot seamlessly enables the use of localized resources and texts. **Link:** https://godotengine.org/asset-library/asset/134 **Classified as tool facing tool (adding functionality, although its main purpose is to demonstrate)**				
Localization Editor	**VP-GAMES**	**Free**	**Tools**	**Locali***
This is a Godot Editor plugin to manage localization data. The plugin allows you to quickly and easily edit translations in csv format. You can also auto translate your text (build in Google Translator) Remaps are also supported. Resources are assigned very easily using drag and drop. The assigned resources can be viewed in preview window, to check them. Inputs are also checked for errors. The wrong entries are highlighted in color. **Link:** https://godotengine.org/asset-library/asset/773 **Classified as user facing tool**				
Translation editor	**Zylnn**	**Free**	**Tools**	**Translat***
An editor plugin to edit translation files from inside Godot Engine. It supports .csv and .po files, although gettext support is limited to what Godot can handle. It can also be used as a standalone editor if translation_editor.tscn is run or exported as main scene. **Link:** https://godotengine.org/asset-library/asset/284 **Classified as user facing tool**				

Total number of User facing tools: 2

Total number of Tool facing tools: 1

LOCALIZATION TOOLS IN UNITY TOOL LIBRARY

Link to Unity Asset Store: https://assetstore.unity.com/

Name	Developer	Price	Categorized as:
I2 Localization	**Inter Illusion**	**USD 45**	**User facing**
https://assetstore.unity.com/packages/tools/localization/i2-localization-14884			
Databox - Localization addon	**doorfortyfour**	**USD 15**	**User facing**
https://assetstore.unity.com/packages/tools/localization/databox-localization-addon-183797			
Bad Word Filter PRO	**crosstales**	**USD 48**	**User facing**
https://assetstore.unity.com/packages/tools/localization/bad-word-filter-pro-26255			
CGLocalization	**Franco Rosatto**	**USD 28.60**	**User facing**
https://assetstore.unity.com/packages/tools/localization/cglocalization-130251			
BG Localization	**BansheeGz**	**USD 40**	**User facing**
https://assetstore.unity.com/packages/tools/localization/bg-localization-114740			
Easy Alphabet Arabic	**Fayyad Sufyan**	**USD 20**	**Tool facing**
https://assetstore.unity.com/packages/tools/localization/easy-alphabet-arabic-56625			
Fleece	**KaiClavier**	**USD 65**	**User facing**
https://assetstore.unity.com/packages/tools/localization/fleece-113132#content			
Localizer	**OrangeTree**	**USD 50**	**Tool facing**
https://assetstore.unity.com/packages/tools/localization/localizer-73930			
IUnified	**Wounded Wolf**	**USD 5**	**Tool facing**
https://assetstore.unity.com/packages/tools/localization/iunified-12117			
Universal Chat (Real-Time Translator)	**IjDevelopment**	**USD 45**	**Tool facing**
https://assetstore.unity.com/packages/tools/localization/universal-chat-real-time-translator-15177			
Autonamer	**Virtual Escapes**	**USD 14.99**	**User facing**
https://assetstore.unity.com/packages/tools/localization/autonamer-146958			
DevXUnity-Localization	**DevXDevelopment**	**USD 30**	**User facing**
https://assetstore.unity.com/packages/tools/localization/devxunity-localization-87881			
Localization Editor	**Stay At Home Devs LLC**	**USD 30**	**User facing**
https://assetstore.unity.com/packages/tools/localization/localization-editor-36006			

Language Manager (Text & Audio)	TinQwise Immersive	USD 29.99	User facing
https://assetstore.unity.com/packages/tools/localization/language-manager-text-audio-147997			
Localization Manager	Yu Yang	USD 28	Tool facing
https://assetstore.unity.com/packages/tools/localization/localization-manager-158921			
Pan Localization	SpadeAce	USD 25	User facing
https://assetstore.unity.com/packages/tools/localization/pan-localization-10021			
Localising	Garth de Wet	USD 25	Tool facing
https://assetstore.unity.com/packages/tools/localization/localising-1733			
Bundle language manager	OliviaDevelop	USD 24.95	User facing
https://assetstore.unity.com/packages/tools/localization/bundle-language-manager-170711			
One Click Localization	Red Giraffe Games	USD 15	User facing
https://assetstore.unity.com/packages/tools/localization/one-click-localization-76358			
Localized Display Name	ContinueButton	USD 19.99	Tool facing
https://assetstore.unity.com/packages/tools/localization/localized-display-name-141833			
UniLang	Aspermind studio	USD 20	Tool facing
https://assetstore.unity.com/packages/tools/localization/unilang-106458			
UniTranslate Localization System	SkaillZ	USD 20	User facing
https://assetstore.unity.com/packages/tools/localization/unitranslate-localization-system-59003			
DocsPin-Google Drive Localization	Easyggsoft	USD 15	Tool facing
https://assetstore.unity.com/packages/tools/localization/docspin-google-drive-localization-20777			
Localize Asset	MeadowsPhone Team	USD 15	User facing
https://assetstore.unity.com/packages/tools/localization/localize-asset-62047			
LocKey - Localization	Nerdvania	USD 15	Tool facing
https://assetstore.unity.com/packages/tools/localization/lockey-localization-106082			
No Such Localization (Pro)	No Such Studio	USD 14.99	Tool facing
https://assetstore.unity.com/packages/tools/localization/no-such-localization-pro-162777			
TinyLocalization 2	Singularity studio	USD 14.99	User facing
https://assetstore.unity.com/packages/tools/localization/tinylocalization-2-100489			
Calliope - Translation Manager	Explorers Lab	USD 14.99	User facing
https://assetstore.unity.com/packages/tools/localization/calliope-translation-manager-143474			
LoraLang / No keys localization	DESTPLAY TECH	USD 13	Tool facing
https://assetstore.unity.com/packages/tools/localization/loralang-no-keys-localization-146057			
Lean Localization	Carlos Wilkes	Free	Tool facing
https://assetstore.unity.com/packages/tools/localization/lean-localization-28504			
JLoc Language Manager	Fabian Kober	USD 12	Tool facing
https://assetstore.unity.com/packages/tools/localization/jloc-language-manager-140494			
Language Manager	TekkTech	Free	Tool facing
https://assetstore.unity.com/packages/tools/localization/language-manager-189273			
MULTILANGUAGE | Localization & Translation	Hot Soup Games	USD 10	User facing
https://assetstore.unity.com/packages/tools/localization/multilanguage-localization-translation-android-ios-windows-and-m-179267			
Localization Flow	VP-BYTE	USD 9.99	User facing
https://assetstore.unity.com/packages/tools/localization/localization-flow-144256			
Localization - Translation Memory Manager	Gtadeon	USD 9	Tool facing
https://assetstore.unity.com/packages/tools/localization/localization-translation-memory-manager-81012			
Lingua - Dynamic Localization Manager	Bloc	USD 8.99	Tool facing
https://assetstore.unity.com/packages/tools/localization/lingua-dynamic-localization-manager-175103			
Babel Translation Toolkit	Ward Dehairs	USD 8	Tool facing
https://assetstore.unity.com/packages/tools/localization/babel-translation-toolkit-157425			
Easy Localize	Max2D	USD 5	Tool facing
https://assetstore.unity.com/packages/tools/localization/easy-localize-109425			
Easy Translations and Localization	Iståke	USD 7.50	User facing
https://assetstore.unity.com/packages/tools/localization/easy-translations-and-localization-128027			
SimpleLocalization	Oruka	USD 6.99	Tool facing
https://assetstore.unity.com/packages/tools/localization/simplelocalization-134316			
AutoLocalization	Kan.Kikuchi	USD 4.99	Tool facing
https://assetstore.unity.com/packages/tools/localization/autolocalization-69082			
One Click Localization - Full Auto	Orion Games	USD 4.99	Tool facing

https://assetstore.unity.com/packages/tools/localization/one-click-localization-full-auto-109818

Global Variables Localization	Casarotto Developer	USD 4.99	Tool facing
https://assetstore.unity.com/packages/tools/localization/global-variables-localization-177357			
XML Localization	Jarosław Wątroba	USD 5	Tool facing
https://assetstore.unity.com/packages/tools/localization/xml-localization-crossplatform-ui-text-image-auto-swap-48673			
AutoTranslate & Localization	Code Cabin	USD 5	Tool facing
https://assetstore.unity.com/packages/tools/localization/autotranslate-localization-67145			
Babelfish Language Detection	Wizcorp Inc	USD 5	Tool facing
https://assetstore.unity.com/packages/tools/localization/babelfish-language-detection-33320			
EpicTranslate	Hot Totem Assets	USD 5	User facing
https://assetstore.unity.com/packages/tools/localization/epictranslate-84969			
Locator Tool	SaYoS	USD 5	Tool facing
https://assetstore.unity.com/packages/tools/localization/locator-tool-98273			
Simple Localizator	Night Lord Development	USD 5	Tool facing
https://assetstore.unity.com/packages/tools/localization/simple-localizator-110739			
New Localization System	Valeron	USD 5	Tool facing
https://assetstore.unity.com/packages/tools/localization/new-localization-system-170041			
TranslationsLab	Chillout Labs	USD 5	Tool facing
https://assetstore.unity.com/packages/tools/localization/translationslab-167488			
Localization System	Asset Repository	USD 4.99	Tool facing
https://assetstore.unity.com/packages/tools/localization/localization-system-4421			
CodeGen Localization	CodeGen	USD 4.99	Tool facing
https://assetstore.unity.com/packages/tools/localization/codegen-localization-77528			
Localization++	Engin Yildirim	USD 4.99	Tool facing
https://assetstore.unity.com/packages/tools/localization/localization-10487			
Android Strings Reader (Easy Translation)	Thalamus	USD 4.99	Tool facing
https://assetstore.unity.com/packages/tools/localization/android-strings-reader-easy-translation-11581			
Language Internationalization	lukasi	USD 4.99	Tool facing
https://assetstore.unity.com/packages/tools/localization/language-internationalization-4325			
Translation Helper	Firefly	USD 4.99	Tool facing
https://assetstore.unity.com/packages/tools/localization/translation-helper-102749			
Simple Text Localization	Alessio	USD 4.99	Tool facing
https://assetstore.unity.com/packages/tools/localization/simple-text-localization-132548			
Geeky Localizator	Geeky Assets	USD 4.99	Tool facing
https://assetstore.unity.com/packages/tools/localization/geeky-localizator-137758			
Localization system in json format	Denis Dzherihov	USD 4.99	Tool facing
https://assetstore.unity.com/packages/tools/localization/localization-system-in-json-format-179508			
Translation system / I18N Plugin / Language	HONETi	Free	Tool facing
https://assetstore.unity.com/packages/tools/localization/translation-system-i18n-plugin-languages-59716			
EDGE Standard Assets	Productive Edge	Free	Tool facing
https://assetstore.unity.com/packages/tools/localization/edge-standard-assets-119235			
Asset Localization	H.Ibrahim Penekli	Free	Tool facing
https://assetstore.unity.com/packages/tools/localization/asset-localization-100473			
Auto Localization	Waqas Hashmi	Free	Tool facing
https://assetstore.unity.com/packages/tools/localization/auto-localization-97489			
J Multi Language	Jun	Free	Tool facing
https://assetstore.unity.com/packages/tools/localization/j-multi-language-110033			
No Such Localization (Lite)	No Such Studio	Free	Tool facing
https://assetstore.unity.com/packages/tools/localization/no-such-localization-lite-162190			
Free - Localized Display Name	ContinueButton	Free	Tool facing
https://assetstore.unity.com/packages/tools/localization/free-localized-display-name-154246			
Language Localization	Matej Vanco	Free	Tool facing
https://assetstore.unity.com/packages/tools/localization/language-localization-131052			
Localization Service	SunCube	Free	Tool facing
https://assetstore.unity.com/packages/tools/localization/localization-service-50442			
AutoTranslator	MrRockis	Free	Tool facing
https://assetstore.unity.com/packages/tools/localization/autotranslator-102858			

qDev	Localization	Quadra	Free	Tool facing
https://assetstore.unity.com/packages/tools/localization/qdev-localization-188253			
KNOT Localization	**V0odo0**	**Free**	**Tool facing**
https://assetstore.unity.com/packages/tools/localization/knot-localization-187603			
Localization.po	**KatyCorp**	**Free**	**Tool facing**
https://assetstore.unity.com/packages/tools/localization/localization-po-159949			
Localization Wizard	**Chumakov Alexey**	**Free**	**Tool facing**
https://assetstore.unity.com/packages/tools/localization/localization-wizard-99863			
Simple CSV Localization	**Monofab**	**Free**	**Tool facing**
https://assetstore.unity.com/packages/tools/localization/simple-csv-localization-164947			
Base Localization Tool	**NAMI TENTOU**	**Free**	**Tool facing**
https://assetstore.unity.com/packages/tools/localization/base-localization-tool-83871			
Loclink – One-click Localization	**Native Prime**	**Free**	**Tool facing**
https://assetstore.unity.com/packages/tools/localization/loclink-one-click-localization-75295			
Howl - The Symbolic Notation for C#	**Activ**	**Free**	**Tool facing**
https://assetstore.unity.com/packages/tools/localization/howl-the-symbolic-notation-for-c-177081			
FuncAnalyzer	**lujun**	**Free**	**Tool facing**
https://assetstore.unity.com/packages/tools/localization/funcanalyzer-164221			

Total number of User facing tools: 21

Total number of Tool facing tools: 59

LOCALIZATION TOOLS IN UNREAL ENGINE TOOL LIBRARY

Link to Unreal Engine Marketplace: https://www.unrealengine.com/marketplace/

Name	Developer	Price	Category	Keyword(s)
AwsCore::Translate	**eeldev**	**USD 19.99**	**Engine Plugin**	**Translat*, Languag***
Use Amazon Translate Inside Unreal Engine 4 **Link:** https://www.unrealengine.com/marketplace/en-US/product/awscore-translate **Classified as tool facing tool**				
MSL Toolkit	**Dino Zavr**	**USD 59.99**	**Complete Project**	**Locali***
This toolkit provides Menu, Settings, and Localization systems, with a wide range of features that can fit any project needs. It can be used to build complex Menus with gamepad/keyboard/mouse navigation working seamlessly. Menu system is a folder hierarchy based system, with the use of interaction presets, it can be used to create menus of any complexity level. The Settings system is implemented with easy adding custom settings and their behavior has input rebinding and saving/loading. Localization system is a very useful tool to use localize text and audio archives, and is more superior than the engine's default localization dashboard. Upgraded savegame system now, with folder based hierarchy feature, much precise and easy saving data and prioritized actors loading, to boot and init some actors earlier than others for complex systems. All those systems can work separately but they are compatible with each other, in the example demonstration they are working together. This system can help and speed up any menu building process in the engine and save much time, this is very big and complex system with simplified workflow. **Link:** https://www.unrealengine.com/marketplace/en-US/product/msl-toolkit **Classified as user facing tool**				
Translate with Blueprints by AWS	**BINXU**	**USD 4.99**	**Engine Plugin**	**Translat*, Languag***
It lets you to translate your text to other language with blueprint. No need any c++ knowledge requested. You also check what languages does aws translate support **Link:** https://www.unrealengine.com/marketplace/en-US/product/translate-with-blueprints-by-aws **Classified as tool facing tool**				

Total number of User facing tools: 1

Total number of Tool facing tools: 2