

# **Super-charging content production with Godot addons**

Building a pipeline to produce  
game content predictably.



# @bitbrain

- German based in the UK
- working on a dwarven pixelart RPG! 💎🔨
- maintainer of **pandora** and **beehave** 🐝
- Godot = ❤️⭐

[bitbra.in/slides/godotcon2023.pdf](http://bitbra.in/slides/godotcon2023.pdf)

# Godot's Design Philosophy

“ [...] new features from the core developers often focus on what will benefit the most users first.“

source: [https://docs.godotengine.org/en/stable/getting\\_started/introduction/godot\\_design\\_philosophy.html](https://docs.godotengine.org/en/stable/getting_started/introduction/godot_design_philosophy.html)

# Terminology

- **addon** = third-party code and assets (including plugins)
- **plugin** = a Godot editor plugin (requires `plugin.cfg`)
- **extension** = extends Godot's core via C++ through the GDExtension interface (requires `*.gdextension`)
- **module** = compiled with Godot's core

# Plugins

Example: `addons/dialogic/plugin.cfg`

```
[plugin]

name="Dialogic"
description="Create dialogs, characters and scenes to display conversations in your Godot games.
https://github.com/coppolaemilio/dialogic"
author="Emi, Jowan Spooner, Exelia, and more!"
version="2.0-Alpha-10 (Godot 4.1.2)"
script="plugin.gd"
```

source: <https://github.com/coppolaemilio/dialogic/blob/main/addons/dialogic/plugin.cfg>

# GDExtensions

Example: `addons/fmod/fmod.gdextension`

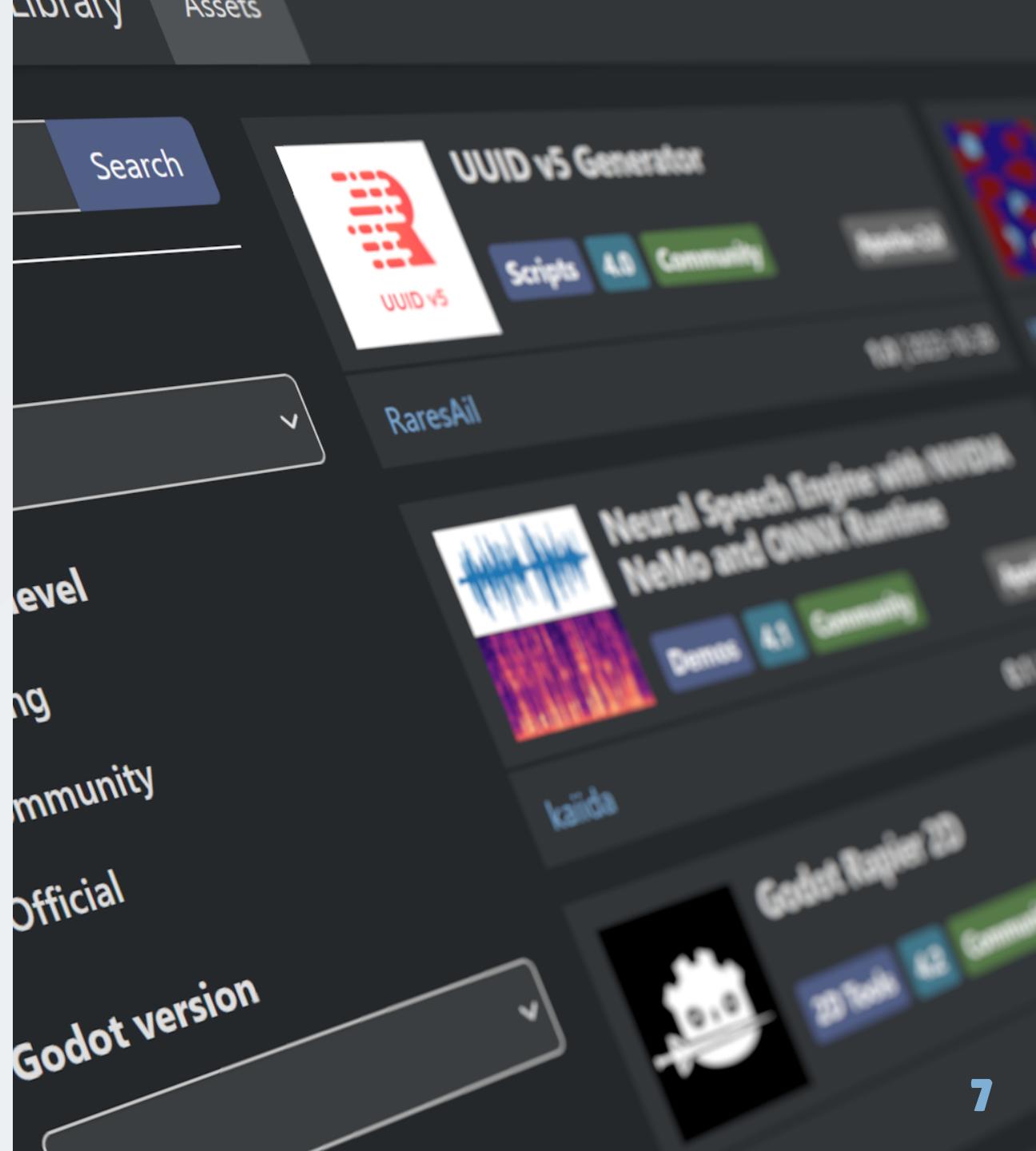
```
[configuration]
entry_symbol = "fmod_library_init"
compatibility_minimum = 4.1

[libraries]
windows.editor.x86_64 = "res://addons/fmod/libs/windows/libGodotFmod.windows.editor.x86_64.dll"
windows.debug.x86_64 = "res://addons/fmod/libs/windows/libGodotFmod.windows.template_debug.x86_64.dll"
windows.release.x86_64 = "res://addons/fmod/libs/windows/libGodotFmod.windows.template_release.x86_64.dll"
```

source: <https://github.com/utopia-rise/fmod-gdextension/blob/master/demo/addons/fmod/fmod.gdextension>

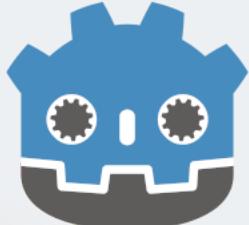
# Addon Ecosystem

Exploring the categories of Godot addons.

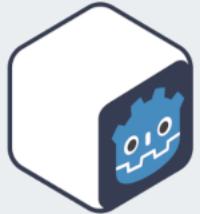


# Dialogic

fmod® GDExtension



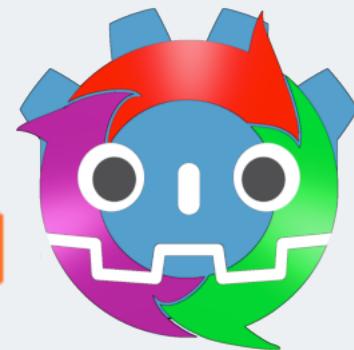
## GDShell



Pandora



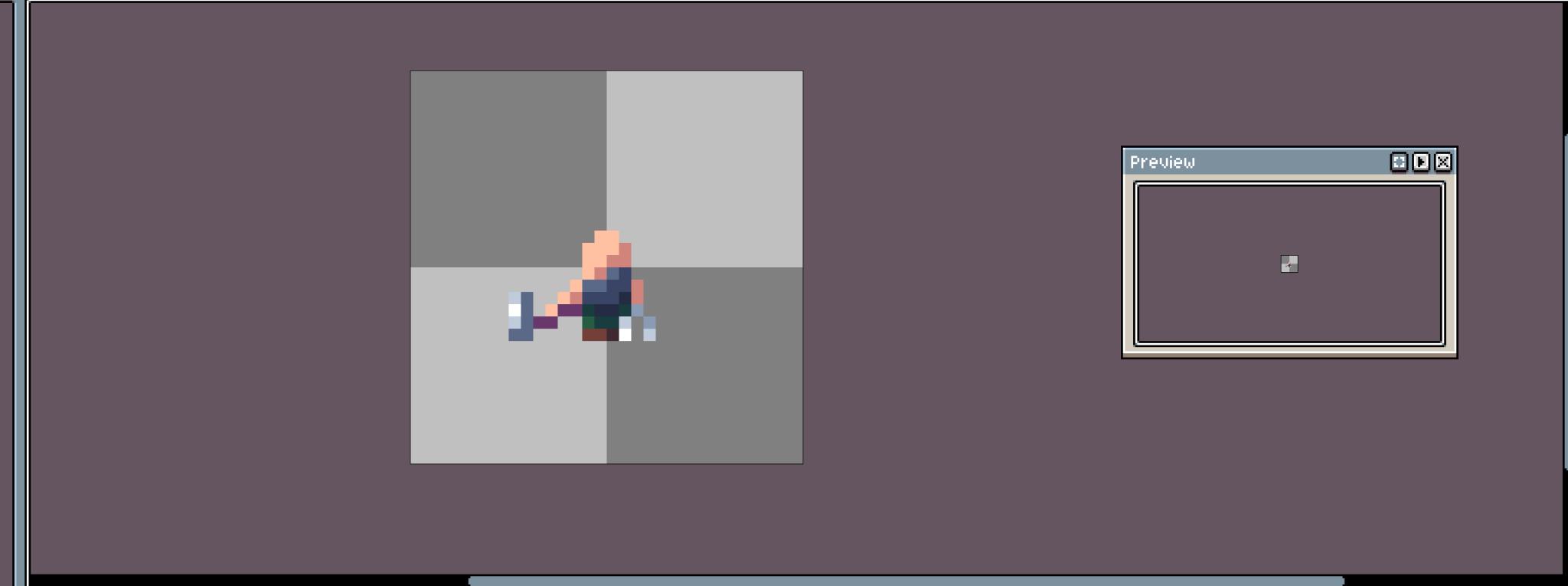
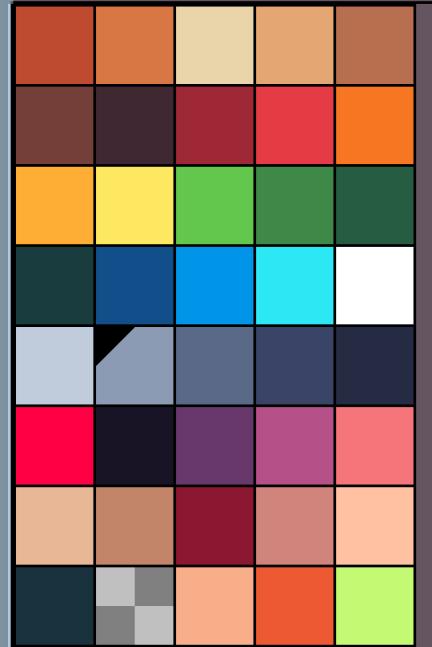
Beehave



# Workflow addons

Accelerate and  
automate common  
processes.





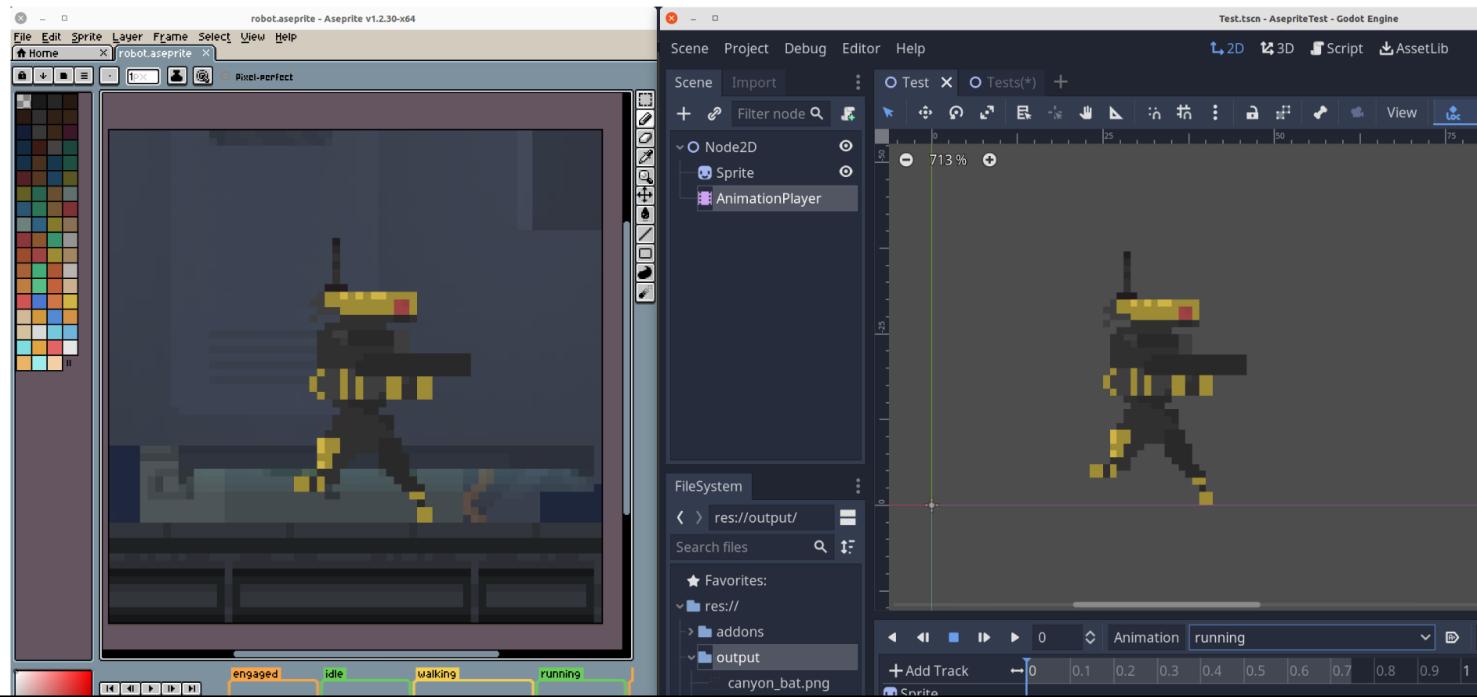
	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
14	■	■	■	■	■	Tong_Idle_Down	Tong_Idle_Up	Forge_Down	Forge_Up	Fall	Carry_Idle_Down																			
15	■	■	■	■	■	81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34																								
16	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
17	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
18	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
19	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
20	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
21	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
22	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
23	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
24	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
25	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
26	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
27	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
28	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
29	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
30	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
31	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
32	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
33	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
34	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
35	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
36	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
37	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
38	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
39	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
40	■	■	■	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	

# Godot Aseprite Wizard (Godot 4) [🔗](#)



Godot plugin to help import Aseprite animations to AnimationPlayers, AnimatedSprites 2D/3D and SpriteFrames.

*This branch supports Godot 4. For Godot 3 docs and code check the [godot\\_3](#) branch. You can find more details about the differences between Godot 3 and Godot 4 on issue [#70](#).*



## Contributors 10

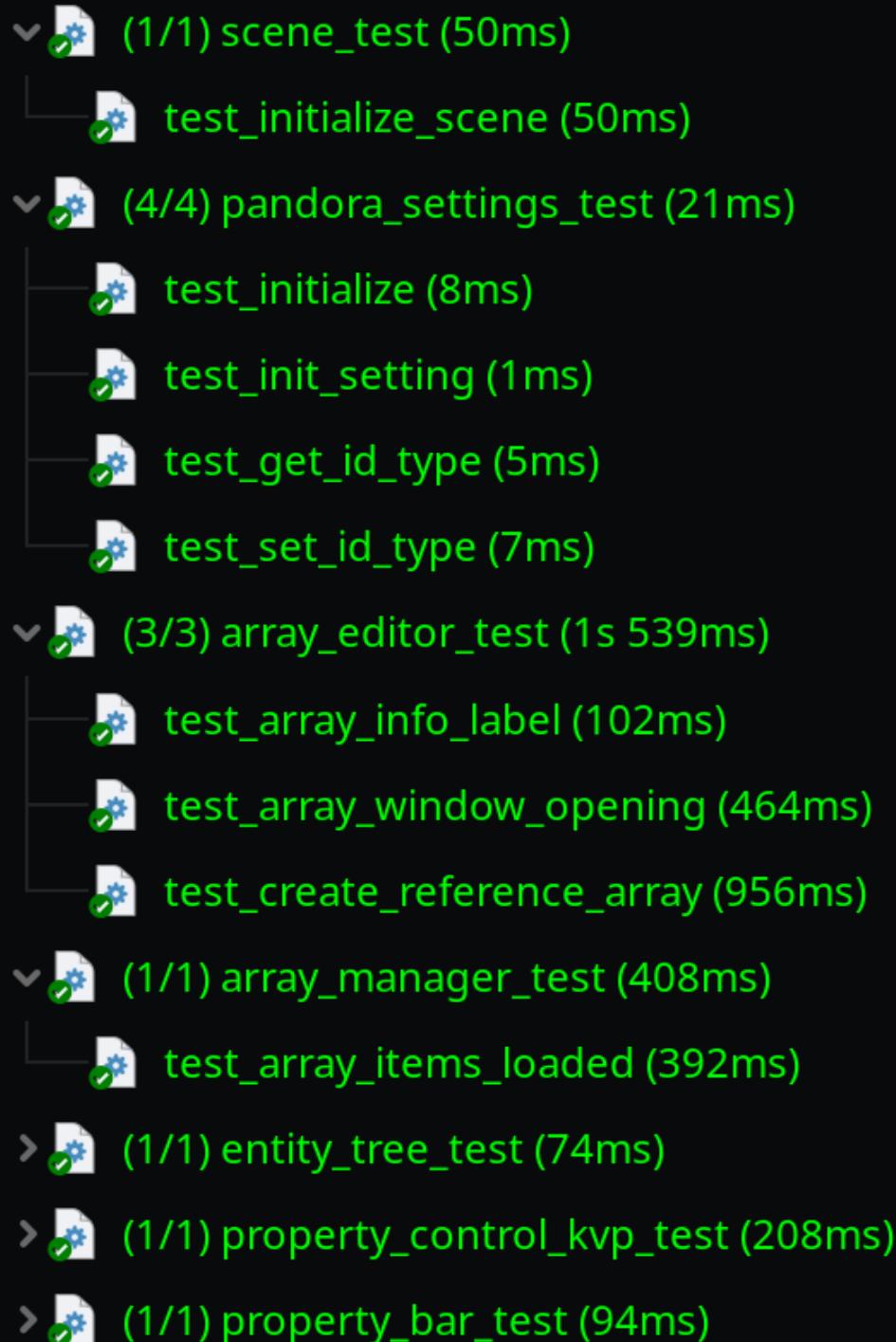


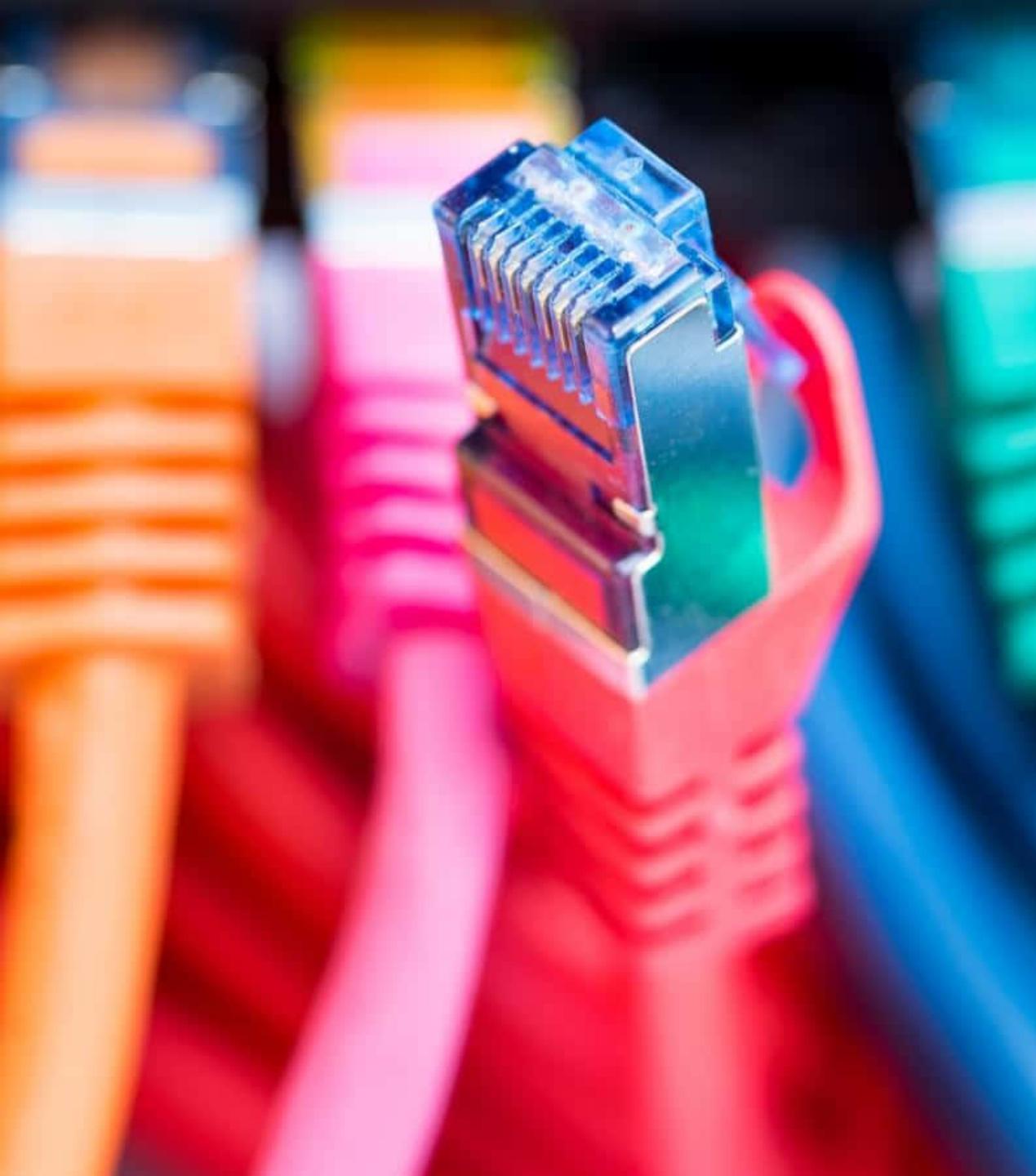
## Languages

- GDScript 100.0%

# Unit Testing

- bitwes/Gut
- MikeSchulze/gdUnit4
- Spycemyster/GDMUT
- watplugin/wat





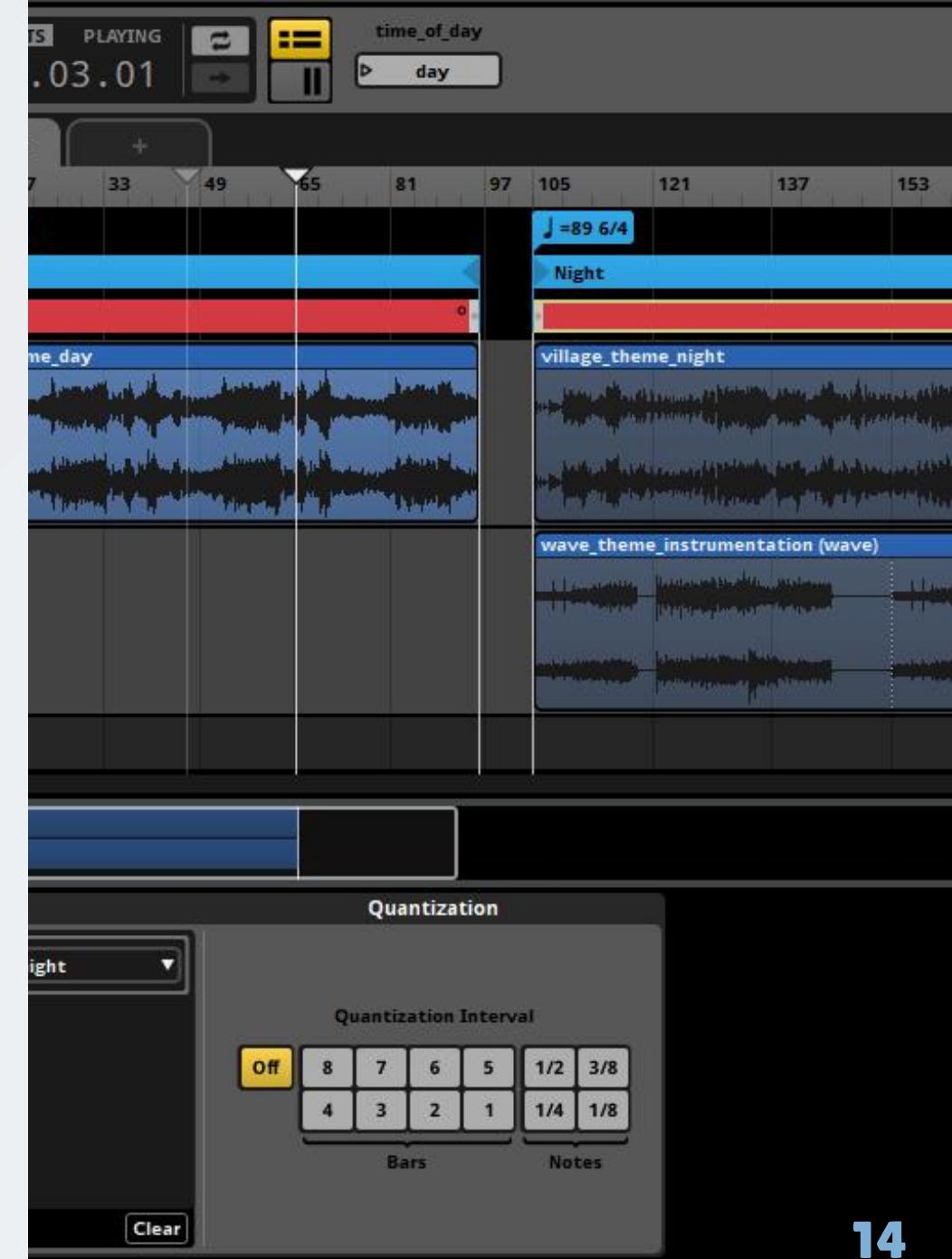
# Integrations

Connect any tool directly  
into Godot Engine.



utopia-rise/fmod-gdextension

alessandrofama/fmod-for-godot





Godot extension that integrates the Jolt physics engine.

[godot-jolt/godot-jolt](#)

- works with `CharacterBody3D` and other familiar Godot nodes out of the box (drop-in replacement)

# Other types of addons

- editor extensions
- language bindings
- templates
- shaders
- custom nodes
- themes

# Addon discovery

- Official: [godotengine.org/asset-library](https://godotengine.org/asset-library)
- Useful: [github.com/godotengine/awesome-godot](https://github.com/godotengine/awesome-godot)
- Goldmine: [github.com/search?q=godot%2Baddon](https://github.com/search?q=godot%2Baddon)
- Supportive: [itch.io/search?q=godot%2Baddon](https://itch.io/search?q=godot%2Baddon)
- Bonus: [godotshaders.com](https://godotshaders.com)

# Is there an addon for that?

S	M	L	XL
fix translation	add new language	add voicelines	dialogue system
change color of sword	update sword animation	add new weapon type	itemization system
fix sound timing	add new sound effect	dynamic sound playback	integrating FMOD
fix level collision	rework existing level	add new level	procedural level generation



# There is no silver bullet

- addons may become outdated
- addons may have bugs
- addons can have different design goals
- addons can break your game

*“ You need to be twice as smart as the person who wrote the code in order to debug it.“*

– Kernighan's Law

# The DIY approach

- no external dependencies
- consistent standard & practices across all code
- any bug can be backtraced back to you (or Godot 😊)
- no docs to learn required

**BUT**

You need to know how to build it.

# When to probably use addons

- You do not want to build it yourself
- You have no time to build it yourself
- You want to build games, not technical systems
- You like to explore how others have solved a problem
- You want to get a headstart (e.g. gamejams)

# Properties of a good addon

A **good** addon should be:

- useful
- well-documented
- well-presented
- tested
- **maintained or archived**
- compatible

# README.md

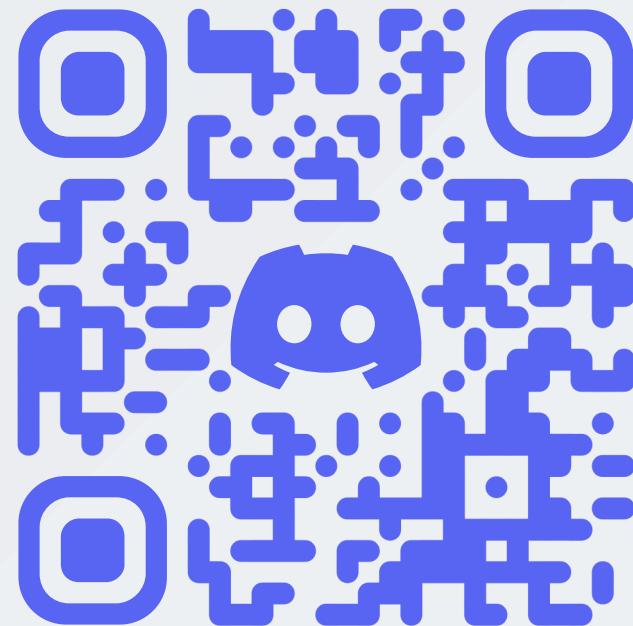
1. Recognizable Addon Logo
2. gifs and images showing what your addon does
3. how to install
4. compatibility matrix
5. how to contribute guide
6. wiki (e.g. via `docsify`)

# Interesting Proposals

- #8114 Better discoverability of curated add-ons into editor
- #7925 add-on manifests
- #1205 New Add-On (sub-project) system
- #831 Add support for global plugins/universal addons
- #3367 Add ExtensionDevelopmentPlugin for in-editor native extension development

source: [github.com/godotengine/godot-proposals](https://github.com/godotengine/godot-proposals)

# Questions?



[youtube.com/@bitbraindev](https://youtube.com/@bitbraindev)