

Building a Godot Plugin with GDExtension

GodotCon Boston 2025

GodotCon Boston 2025 - <https://doxey.link/godotcon-boston-2025>





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Who am I?

- Games and tools developer
- Worked with Unity, Unreal and Godot
- Built a lot of what I work on as open source projects
- Currently building my own game engine
- And a multi-engine tool for building rhythm games (Unity, Unreal, Godot, MonoGame, SDL, etc)



Outline of Workshop

1. Prerequisites (macOS / Windows / Linux)
2. Building an empty plugin
3. Loading a simple header library in the plugin
4. Extending a node with custom logic
5. Getters and setters
6. Signals
7. Convert data
8. Automation via GitHub Actions



Prerequisites

(macOS / Windows / Linux)



Prerequisites

- Godot 4.3+
- VS Code (or equivalent text editor)
- Git
- Python
- Scons



Prerequisites (macOS)

- Git (<https://git-scm.com/>)
- Brew (<https://brew.sh/>)
- Python - `brew install python`
- Scons - `brew install scons`



Prerequisites (Windows)

- Git (<https://git-scm.com/>)
- Visual Studio (<https://visualstudio.microsoft.com/vs/community/>) - With Desktop development with C++
- Python (<https://www.python.org/>) - Check off add to ENV variable
- Scons - `python -m pip install scons`



Prerequisites (Linux)

- git - `sudo apt install git`
- python - `sudo apt install python3`
- scons - `sudo apt install scons`
- vim - `sudo apt install vim`



Setup the repo



Steps

Remember: Commit after each step

1. Create a new directory and set up a git repo with `git init`
2. Create a README.md file
3. Add the **godotengine/godot-cpp** as a submodule

```
git submodule add https://github.com/godotengine/godot-cpp.git
```

- a. Navigate into the godot-cpp/ directory
- b. Checkout the tag for the minimum version of Godot you want to support
`git checkout godot-4.3-stable`



Building with scon for the first time



Building an empty plugin



Loading a simple header library in the plugin



Extending a node with custom logic



Getters and setters



Signals



Convert data



Automation via GitHub Actions



Questions?

