Building a Godot Plugin with GDExtension

GodotCon Boston 2025

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

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

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-4.4-stable`

Building with scons 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?