



Godot

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Table of Contents

01

What is Godot

02

Key Concepts

03

Best Practices

04

Demo

05

Pros & Cons

06

Questions

What is Godot?



Free &
Open-source



2D and 3D
Game Engine



Cross-platform



Key Concepts Overview

Scenes

Break down game with reusable scenes

Signals


Nodes emit signals when an event occurs

Nodes

The game's smallest building blocks

Scripts

Mainly supports C# and GDScript

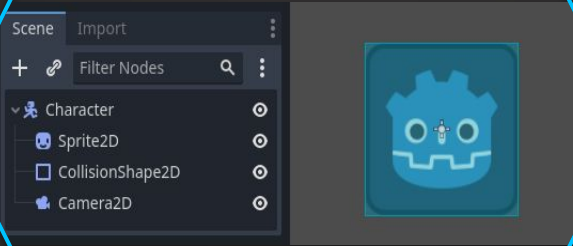


Nodes

Smallest building block of a game

Together, nodes form a tree

Node trees can be added as children of other nodes



Contain editable properties

Can extend with new properties & functions

Extensive library of base node types

Scenes

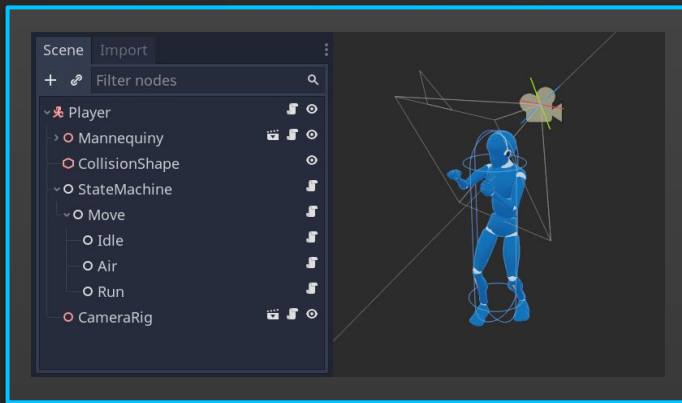
Use nodes to construct scenes

Scenes have one root node

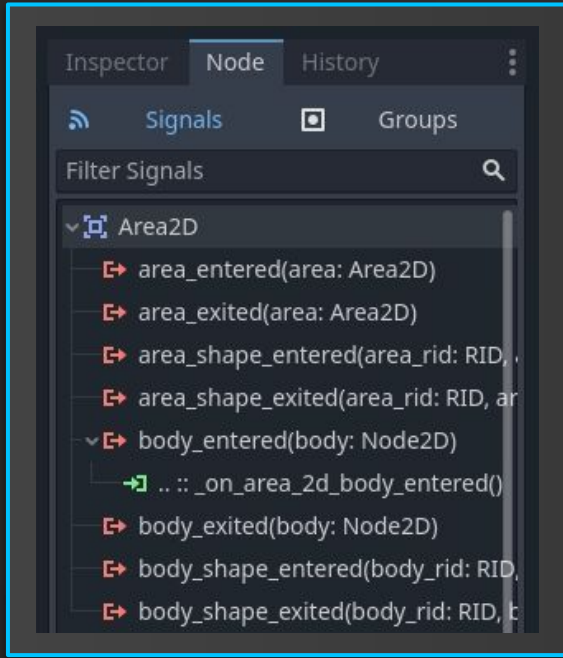
Can have an many instances of a scene as you'd like

Can make as many scenes as you want

Can be thought of as classes



Signals



Nodes emit signals when an event occurs

Connect signals to run code when an event occurs

Scripts

What are they?

Scripts attach to nodes & extend it's behavior

Godot supports
GDScript & C#
(can use C and C++ with
extensions)

GDScript

Object-Oriented

Built for Godot by
game developers

Fast compilation

Best Practices

Version Control

Manage a collaborative development and roll back changes

Object-Oriented Principles

Scene instances are objects

Scene Organization

Single-purpose classes, loose coupling, no dependencies



Demo



Pros

Cross-Platform

Create Games
for iOS &
Android

GScript

Similar to
Python

Ease of Access

Beginner
Friendly, Easy to
Pick Up

Cons

Not as Widely Used


Smaller
Community

Imports

Hard to Bring in
Outside
Elements

Animations

Not as
Advanced



Thank you!

Learn More

[Introduction to Godot — Godot Engine documentation](#)
[Godot Game Development - FreeCodeCamp](#)

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