

Desenvolvimento o de **jogos** com a Godot



Quem sou eu

- Renato
- Formado em Sistemas
- Hobbista em **gamedev**
há mais de 12 anos



Meus jogos



Objetivo

- Introduzir a **Godot**
- Criarmos um jogo juntos



Metodologia

- Teoria
- Prática **conjunta**

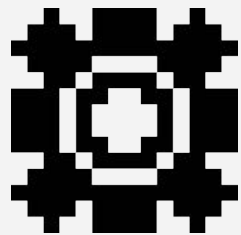


Sobre a Godot

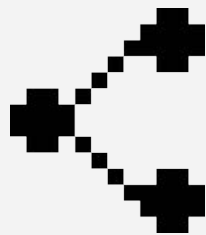
- Lançada em 2014
- **Open source**
- Exporta para várias plataformas
- 2D e 3D



Conceitos básicos



Nodos



Cenas



Sinais





Nodos

- Blocos atômicos de **comportamento**
- Quase TUDO na Godot é feito através de **nodos**

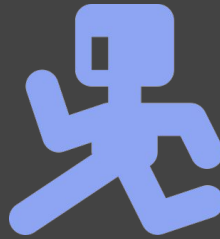
Alguns nodos



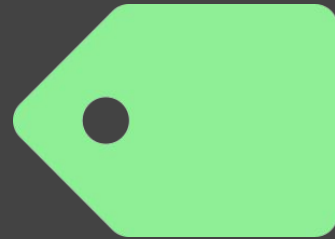
Sprite2D



Button



CharacterBody2D



Label

Scene Import

+ Filter Nodes 🔍 ⋮

Sprite2D

FileSystem

res://icon.svg

Filter Files

★ Favorites:

```
res://
```

icon.svg


- `label.gd`

label.tscn

label x +



22450%

A blue gear-like character with a face, set against a dark blue rounded square background. The character has two large white eyes, a small white nose, and a wide, toothy white mouth. The gear has eight teeth. The entire icon is centered in the upper left quadrant of the slide.

Inspector Node

806

[illegible]

2D Script AssetLib

▶ || ■ 📺 🎬 🎬 🔍 **Forward+**

○ label(*) × +

View

A screenshot of a mobile application interface. At the top, there is a status bar with a minus sign, the text '224.5 %', and a plus sign. The main content area has a dark gray background. On the left side, there is a vertical sidebar with a light gray background and a dark gray header. The sidebar contains a list of items, each with a colored square icon and a text label. The item with the blue gear icon and the label 'TESTE' is highlighted with a white border. The gear icon has a white face with two eyes and a mouth. The word 'TESTE' is written in white capital letters below the icon.

res://icon.svg

★ Favorites:

- res://
 - icon.svg
 - label.gd
 - label.tscn



Filter Properties

Scene Project Debug Editor Help

2D Script AssetLib

Scene Import

+ Filter Nodes

Player

AnimatedSprite2D

CollisionShape2D

FileSystem

< > res://

Filter Files

★ Favorites:

res://

→ addons

→ assets

→ dist

→ resources

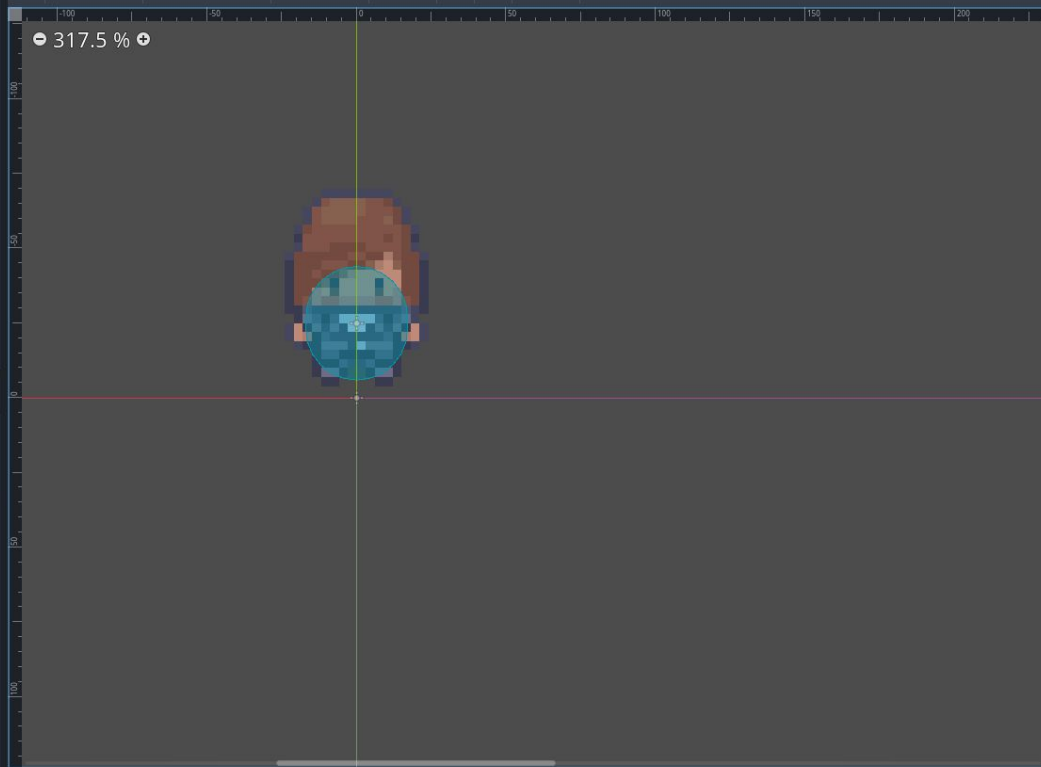
→ scenes

export_presets.cfg

icon.svg

level_1 player x +

View



Inspector

Node History

Filter Properties

Cenas

- Conjuntos de nodos **reutilizáveis**
- Toda tela/fase é uma cena
- Blocos usados **em mais de um lugar** também são cenas
- Cada cena está num **arquivo separado**



Scene Project Debug Editor Help

2D Script AssetLib

Scene Import

+ Filter Nodes

- Menu
 - Background
 - PanelContainer
 - MarginContainer
 - Container
 - EmailField
 - EmailLabel
 - EmailTextEdit
 - PasswordField
 - PasswordLabel
 - PasswordTextEdit

FileSystem

< > res://

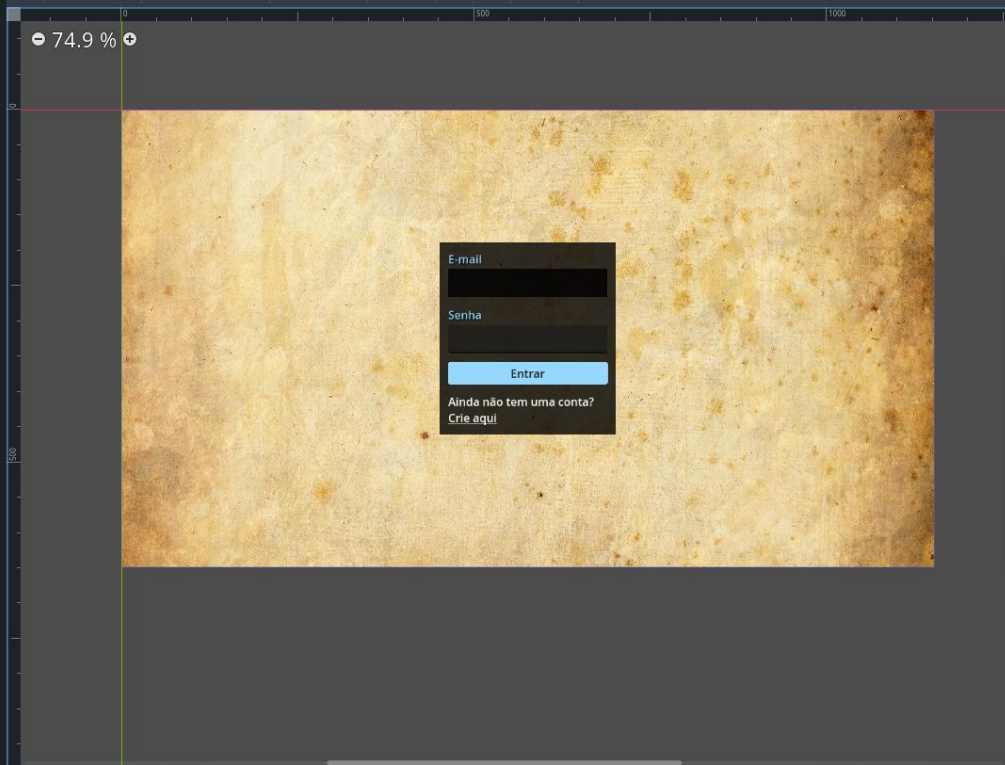
Filter Files

- ★ Favorites:
- res://
- addons
- assets
- dist
- resources
- scenes
- export_presets.cfg
- icon.svg

menu x game +

View

74.9 %



Inspector

Node History

Filter Properties

Output Debugger Audio Animation Shader Editor

4.0.2.rc1

Scene Project Debug Editor Help

2D Script AssetLib

Scene Import

+ Filter Nodes

Player

AnimatedSprite2D

CollisionShape2D

FileSystem

< > res://

Filter Files

★ Favorites:

res://

→ addons

→ assets

→ dist

→ resources

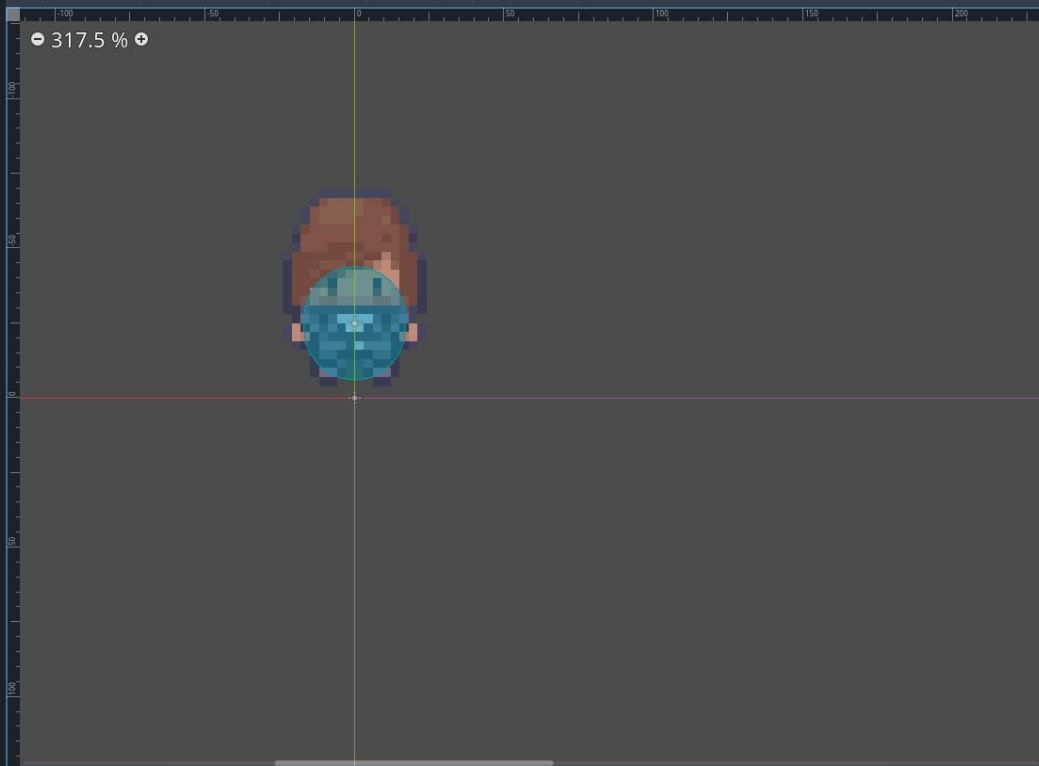
→ scenes

export_presets.cfg

icon.svg

level_1 player x +

View



Inspector

Node History

Filter Properties

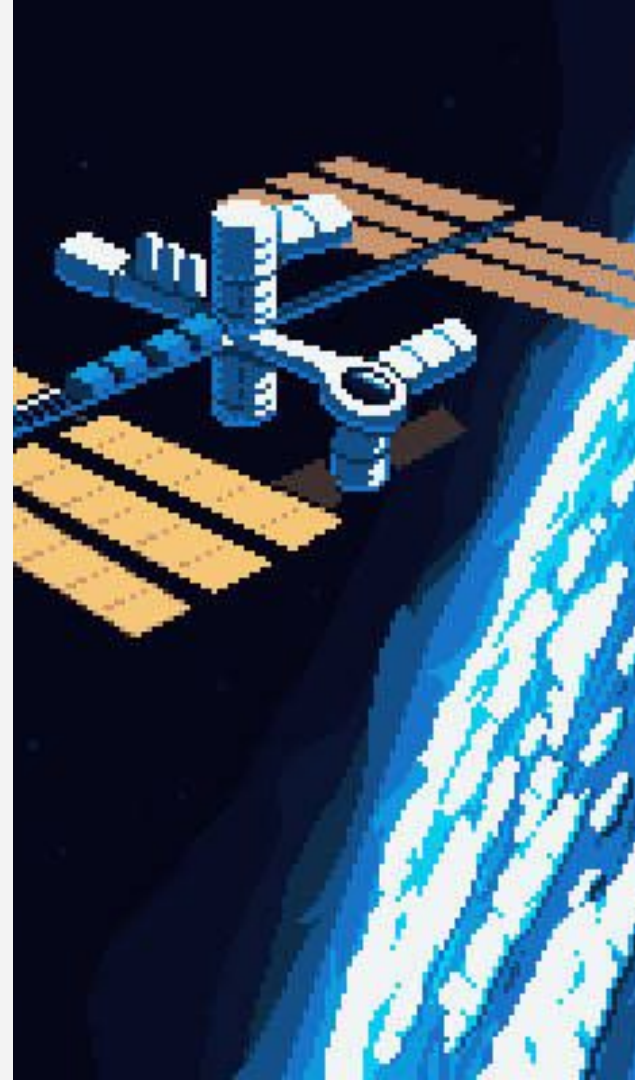


Sinais

- Formas de **notificar ações** dentro do jogo
- Cada sinal se **conecta** a várias funções
 - Cada nodo **emite** vários sinais

Exemplos de sinais

- Um objeto **colide** com outro
- Um botão é **apertado**
- Um timer **termina**
- Mouse entra no espaço de um objeto



Scene Project Debug Editor Help

2D Script AssetLib

Scene Import

+ Filter Node

- Node2D
 - Sprite2D
 - Label
 - Button

FileSystem

< > res://

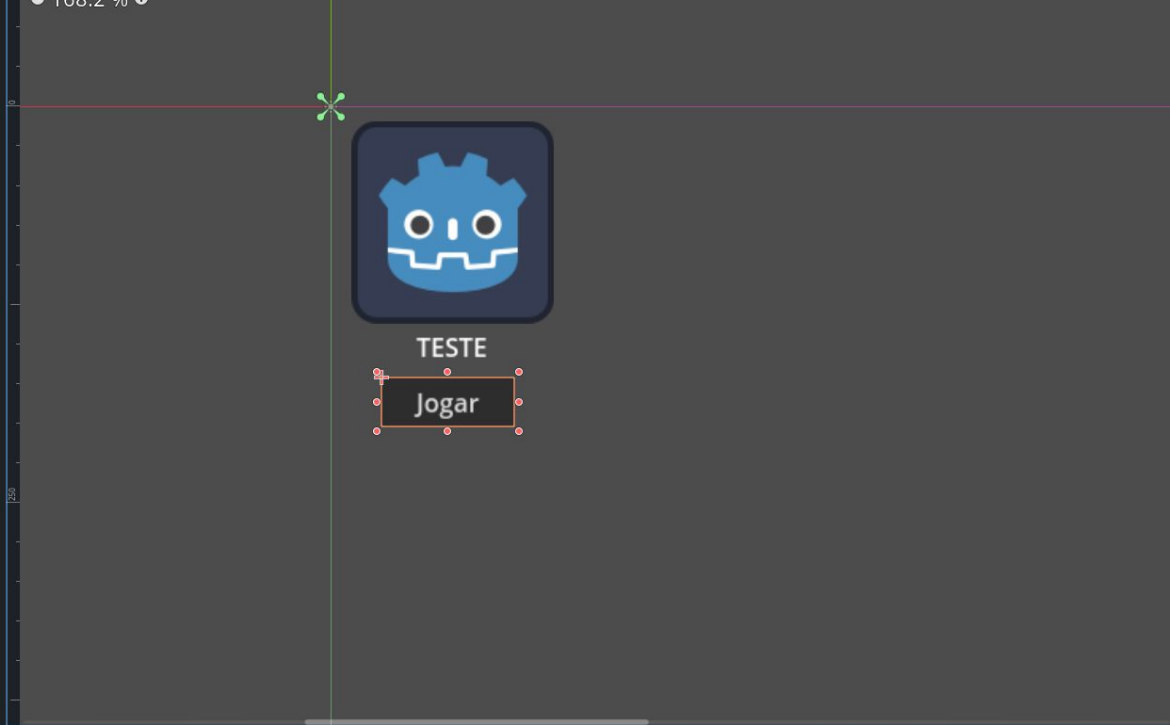
Filter Files

- ★ Favorites:
- res://
 - icon.svg
 - label.gd
 - label.tscn

label(*) x +

View

168.2 %



Forward+

Inspector Node History

Signals Groups

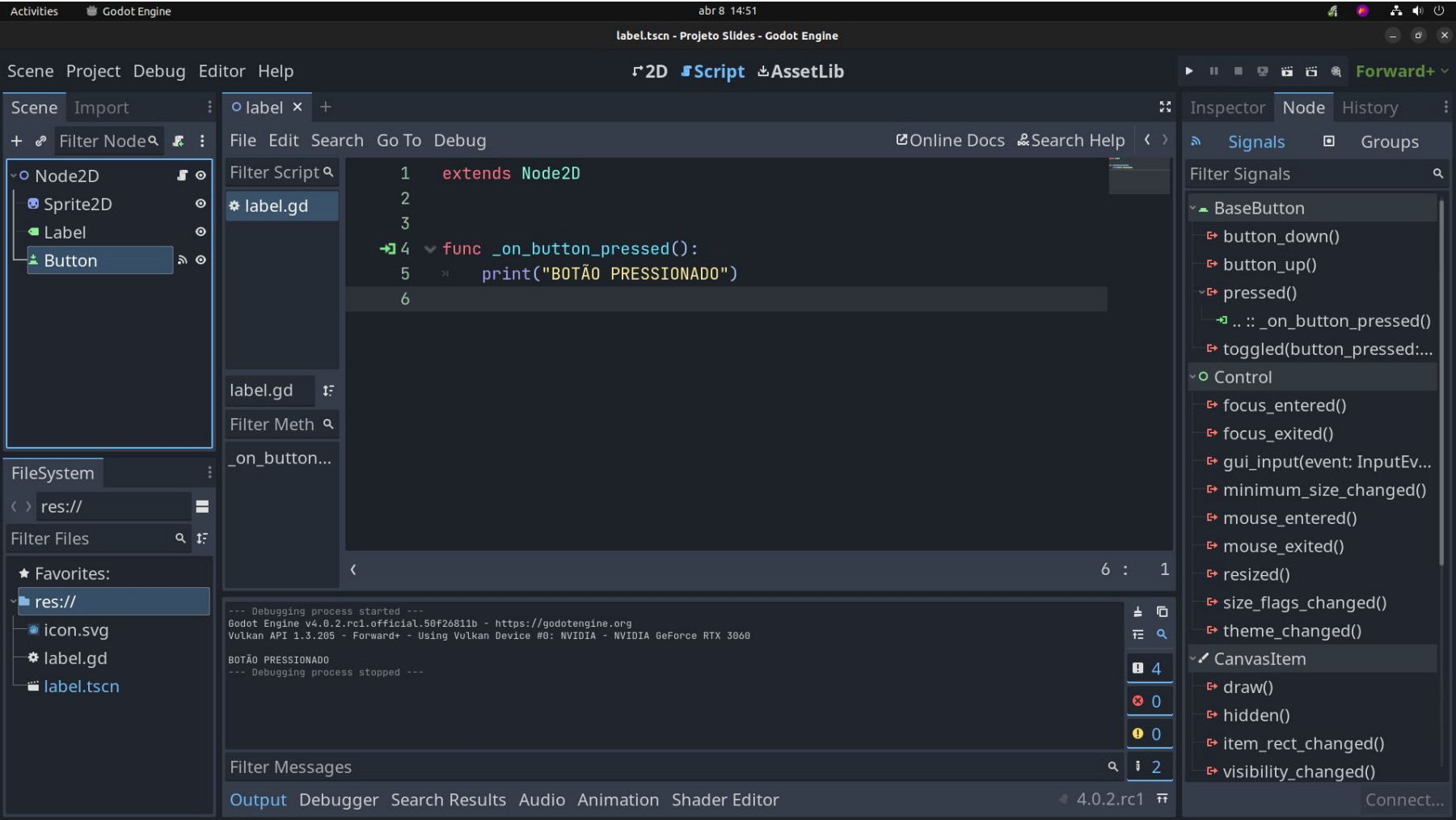
Filter Signals

- BaseButton
 - button_down()
 - button_up()
 - pressed()
 - toggled(button_pressed:...
- Control
 - focus_entered()
 - focus_exited()
 - gui_input(event: InputEv...
 - minimum_size_changed()
 - mouse_entered()
 - mouse_exited()
 - resized()
 - size_flags_changed()
 - theme_changed()
- CanvasItem
 - draw()
 - hidden()
 - item_rect_changed()
 - visibility_changed()
- Node

Output Debugger Audio Animation Shader Editor

4.0.2.rc1

Connect...





Uma introdução a GDScript

- GDScript é a linguagem padrão da Godot
- Inspirada em Python



```
class_name Personagem  
extends CharacterBody2D
```

```
func _ready() -> void:  
    print("Chamado quando o objeto é adicionado na cena")
```

```
func _process(delta: float) -> void:  
    print("Chamado o tempo todo em loop")
```

```
func atirar():  
    # Código que atira uma bala  
    pass
```




```
class_name Personagem  
extends CharacterBody2D
```

```
var numero_balas: int = 10
```

```
func atirar():  
    if numero_balas <= 0:  
        return  
    numero_balas -= 1  
    # Código que atira uma bala  
    pass
```

```
func recarregar():  
    numero_balas = 10
```




Hora de pôr a mão na massa





Astrum

Jogar

