

Super Refactored Mario Python

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Chapter 1

Project Name Source Code

The folders and files for this project are as follows:

Original Code Modifications Reuse dashboard.py. Want to add lives, downcount timer, timer: should be set in the level json. then downtick until zero instead of uptick. Dashboard should be simple GUI, all manipulating functions should be in the controller.

animation.py - Can be combined with sprite.py, sprites.py and spritesheet.py. separate the loadsprites function in sprites.py

Abstract class for entity.py - want entity base to be implemented by subclasses of characters. Entity base will contain all the traits that were separated into (leftrightmovement, jump, bounce etc...) Checking a collision would be merged with the entity class as trait-like

font should be a part of sprites (our opinion. shouldn't be separate). or part of GUI.

Gaussian blur should be in maths or GUI since it only is a visual filter when game is paused.

Controller - Interface for the functionality of the game. input.py Level.py (may be separate) could be placed in the controller. Camera.py functionality through controller. Entity - implement the movement trait.

Maths.py - will turn into a helper class for physics based calculations (gravity).

Menu.py might be placed and merged with dashboard, not too bad being left alone separate.

Pause.py can be placed in Controller, or menu.

Sound will remain separate.

Tile.py - Make part of entity Can be entirely removed. does nothing it's just a data class, drawRect function does nothing. we can move this data elsewhere.

The entities can be separate as they are.

levels.json

...

Chapter 2

Namespace Index

2.1 Namespace List

Here is a list of all documented namespaces with brief descriptions:

utils.physics	7
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Chapter 3

Class Index

3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

resources.sound._Sound_Controller	9
core.entity_base.Entity	9
resources.display.SpriteSheet	10
utils.physics.Vector2D	11

Chapter 4

Namespace Documentation

4.1 utils.physics Namespace Reference

Classes

- class [Vector2D](#)

4.1.1 Detailed Description

@brief

Chapter 5

Class Documentation

5.1 resources.sound._Sound_Controller Class Reference

Public Member Functions

- `def __init__ (self)`
- `None play_sfx (self, mixer.Sound sfx)`
- `None stop_sfx (self)`
- `None mute_sfx (self)`
- `None unmute_sfx (self)`
- `bool sfx_muted (self)`
- `bool playing_sfx (self)`
- `None play_music (self, mixer.Sound music)`
- `None stop_music (self)`
- `None mute_music (self)`
- `None unmute_music (self)`
- `None toggle_music (self)`
- `bool music_muted (self)`
- `bool playing_music (self)`

The documentation for this class was generated from the following file:

- `mariopy/resources/sound.py`

5.2 core.entity_base.Entity Class Reference

Public Member Functions

- `def __init__ (self, float x, float y)`
Initializes an entity with a position.
- `Vector2D get_pos (self)`
Gets the position of the entity.
- `None update_pos (self, Vector2D v)`
- `None set_pos (self, float x, float y)`
- `Vector2D get_vel (self)`
- `None update_vel (self, Vector2D v)`
- `None set_vel (self, float vx, float vy)`
- `Vector2D get_acc (self)`
- `None update_acc (self, Vector2D v)`
- `None set_acc (self, float ax, float ay)`
- `None update (self)`

5.2.1 Constructor & Destructor Documentation

5.2.1.1 `__init__()`

```
def core.entity_base.Entity.__init__ (
    self,
    float x,
    float y )
```

Initializes an entity with a position.

Parameters

<code>x</code>	Initial x position of the entity.
<code>y</code>	Initial y position of the entity.

Exceptions

<code>TypeError</code>	Arguments are not of type float.
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5.2.2 Member Function Documentation

5.2.2.1 `get_pos()`

```
Vector2D core.entity_base.Entity.get_pos (
    self )
```

Gets the position of the entity.

Returns

The position of the entity.

The documentation for this class was generated from the following file:

- mariopy/core/entity_base.py

5.3 resources.display.Spritesheet Class Reference

Public Member Functions

- `def __init__ (self, filename)`
- `def image_at (self, x, y, scalingfactor, colorkey=None, ignoreTileSize=False, xTileSize=16, yTileSize=16)`

Public Attributes

- **sheet**

The documentation for this class was generated from the following file:

- mariopy/resources/display.py

5.4 utils.physics.Vector2D Class Reference

Public Member Functions

- def **__init__** (self, float x, float y)
- float **get_x** (self)
- float **get_y** (self)
- "Vector2D" **add** (self, "Vector2D" v)
- None **set_x** (self, float x)
- None **set_y** (self, float y)
- float **mag** (self)
- str **__repr__** (self)
- str **__str__** (self)
- bool **__eq__** (self, "Vector2D" v)
- bool **__lt__** (self, "Vector2D" v)
- "Vector2D" **__add__** (self, "Vector2D" v)
- "Vector2D" **__sub__** (self, "Vector2D" v)

The documentation for this class was generated from the following file:

- mariopy/utils/physics.py

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