project-scopes

Generated by Doxygen 1.8.12

Contents

Chapter 1

Namespace Index

1.1 Packages

Here are the packages with brief descriptions (if available):

Chapter 2

Hierarchical Index

2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

Chapter 3

Class Index

3.1 Class List

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

Chapter 4

File Index

4.1 File List

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

Chapter 5

Namespace Documentation

5.1 ProjectScopes Namespace Reference

A global namespace for project-scopes. Contains all project-scopes related classes.

Classes

- class Arena

  MonoBehavior for Arena prefab.
- class Configurator

  Stores the game configuration.
- class GameManager

  Main manager of the game.
- class **GUIHelper**

  This class provides methods for managing GUI elements.
- class GUIManager

  Collects user data from the Graphical User Interface.
- class Level
- class Player
- class PlayerInitialData

  Stores the initial values of a player.

5.1.1 Detailed Description

A global namespace for project-scopes. Contains all project-scopes related classes.

A global namespace for project-scopes.

Contains all project-scopes related classes.

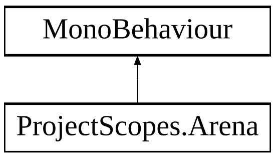
Chapter 6

Class Documentation

6.1 ProjectScopes.Arena Class Reference

MonoBehavior for Arena prefab.

Inheritance diagram for ProjectScopes.Arena:



Public Member Functions

- void **SetupArena** ()
- void **RedrawArena** ()

6.1.1 Detailed Description

MonoBehavior for Arena prefab.

Arena class is a conponent script of Arena prefab. It handles setup of main arena texture, drawing of player traces and check players collisions. It uses configuration data and players list directly from GameManager instance

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

- Arena.cs

6.2 ProjectScopes.Configurator Class Reference

Stores the game configuration.

Public Member Functions

- Configurator ()

  Constructor. Initializes configurator object with the initial data.
- void AddPlayer (int id)

  Adds a new player to the players list.
- void RemovePlayer (int id)

  Removes the player from the players list.

Public Attributes

- const int MaxNoOfPlayers = 6

  Maximum number of players that can participate the game.
- const int MinNoOfPlayers = 2

  Minimum number of players that can participate the game.

Properties

- int ArenaSize `[get]`

  Allows to get the initial aren size value in pixels.
- int CurrentNoOfPlayers `[get, set]`

  Allows to set and get current number of players.
- int InitialArenaSize `[get, set]`

  Allows to set and get the initial size of game arena.
- int InitialPlayerSize `[get, set]`

  Allows to set and get the initial spize of all players.
- int InitialPlayerSpeed `[get, set]`

  Allows to set and get the initial speed of all players.
- List< PlayerInitialData > Players `[get]`

  Allows to get information of all players.
- int PlayerSize `[get]`

  Allows to get the initial size of all players in game units.
- float PlayerSpeed `[get]`

  Allows to get the initial speed of all players.

6.2.1 Detailed Description

Stores the game configuration.

Contains information about minimum and maximum number of players, current number of players, initial size of the arena and all players speed and thickness as well as each player's specific data.

6.2.2 Constructor & Destructor Documentation

6.2.2.1 Configurator()

```
ProjectScopes.Configurator.Configurator ( )
```

Constructor. Initializes configurator object with the initial data.

Sets the initial size of the arena and player speed and size.

6.2.3 Member Function Documentation

6.2.3.1 AddPlayer()

```
void ProjectScopes.Configurator.AddPlayer (
             int id )
```

Adds a new player to the players list.

Creates a new Player object and fills it with initial data.

Parameters

id	Id of the player. The player will be created at the 'id' position on the list.

6.2.3.2 RemovePlayer()

```
void ProjectScopes.Configurator.RemovePlayer (
             int id )
```

Removes the player from the players list.

Removes the Player object and sets null on its place.

Parameters

id	Id of the player. The player will be removed from 'id' position from the list.

6.2.4 Property Documentation

6.2.4.1 ArenaSize

```
int ProjectScopes.Configurator.ArenaSize  [get]
```

Allows to get the initial aren size value in pixels.

The return value is based on user choice.

6.2.4.2 CurrentNoOfPlayers

```
int ProjectScopes.Configurator.CurrentNoOfPlayers  [get], [set]
```

Allows to set and get current number of players.

This value indicates how many players will participate the game.

6.2.4.3 InitialArenaSize

```
int ProjectScopes.Configurator.InitialArenaSize  [get], [set]
```

Allows to set and get the initial size of game arena.

The user has possibility to specify whether the size of the arena should be samll, normal or large.

Returns

Specificator of the arena size (0: small, 1: normal, 2: large).

6.2.4.4 InitialPlayerSize

```
int ProjectScopes.Configurator.InitialPlayerSize  [get], [set]
```

Allows to set and get the initial spize of all players.

The user has possibility to specify whether the size of all players should be initially thin, normal or fat.

Returns

Specificator of the initial player size (0: thin, 1: normal, 2: fat).

6.2.4.5 InitialPlayerSpeed

```
int ProjectScopes.Configurator.InitialPlayerSpeed  [get], [set]
```

Allows to set and get the initial speed of all players.

The user has possibility to specify whether the speed of all players should be initially slow, normal or fast.

Returns

Specificator of the initial player speed (0: slow, 1: normal, 2: fast).

6.2.4.6 Players

```
List<PlayerInitialData> ProjectScopes.Configurator.Players  [get]
```

Allows to get information of all players.

GUI can update player specific information depending on user input.

6.2.4.7 PlayerSize

```
int ProjectScopes.Configurator.PlayerSize  [get]
```

Allows to get the initial size of all players in game units.

The return value is based on user choice.

6.2.4.8 PlayerSpeed

```
float ProjectScopes.Configurator.PlayerSpeed  [get]
```

Allows to get the initial speed of all players.

The return value is based on user choice.

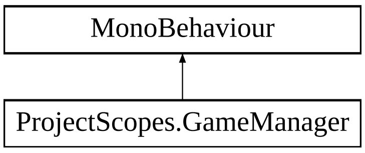
The documentation for this class was generated from the following file:

- Configurator.cs

6.3 ProjectScopes.GameManager Class Reference

Main manager of the game.

Inheritance diagram for ProjectScopes.GameManager:



Public Attributes

- List< Player > **players**

Static Public Attributes

- static GameManager **instance** = null

Properties

- Configurator **GameConfiguration** `[get, set]`

6.3.1 Detailed Description

Main manager of the game.

GameManager class is based on singleton pattern and contains players list and initial game configuration. It is set by default to disable until it gets initial configuration and players data from GUI.

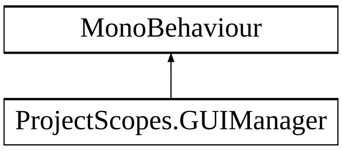
The documentation for this class was generated from the following file:

- GameManager.cs

6.4 ProjectScopes.GUIManager Class Reference

Collects user data from the Graphical User Interface.

Inheritance diagram for ProjectScopes.GUIManager:



Static Public Attributes

- static Configurator configurator = new Configurator()

    Current game configuration.

6.4.1 Detailed Description

Collects user data from the Graphical User Interface.

In EPIC1 user has possibitity to setup each player nickname, color and movement keys. It is also possible to set the initial values of arena size and all players speed and thickness.

6.4.2 Member Data Documentation

6.4.2.1 configurator

```
Configurator ProjectScopes.GUIManager.configurator = new Configurator()  [static]
```

Current game configuration.

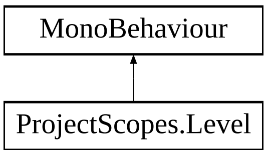
The configurator object is used by GameManager to read the initial game configuration.

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

- GUIManager.cs

6.5 ProjectScopes.Level Class Reference

Inheritance diagram for ProjectScopes.Level:



Public Member Functions

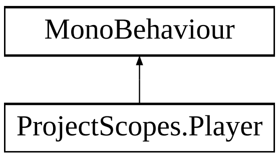
- void **SetupLevel** ()
- void **MovePlayers** ()

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

- Level.cs

6.6 ProjectScopes.Player Class Reference

Inheritance diagram for ProjectScopes.Player:



Public Member Functions

- void **SetupPlayer** (string nickname, Color color, KeyCode[ ] movementKeys)
- void **Reset** ()
- void **Turn** ()
- void **MoveHead** ()
- void **IncreaseSpeed** ()
- void **ReduceSpeed** ()
- void **DoubleSize** ()
- void **ReduceSize** ()
- bool **IsVisible** ()

Properties

- float **PosX** `[get, set]`
- float **PosY** `[get, set]`
- float **PlayerSpeed** `[get]`
- int **PlayerSize** `[get]`
- float **PlayerDirection** `[get]`
- Color **PlayerColor** `[get]`
- bool **IsActive** `[get, set]`
- KeyCode [ ] **MovementKeys** `[get, set]`
- string **Nickname** `[get, set]`

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

- Player.cs

6.7 ProjectScopes.PlayerInitialData Class Reference

Stores the initial values of a player.

Properties

- Color Color `[get, set]`

  Allows to set and get the color of the player.
- KeyCode LeftKey `[get, set]`

  Allowst to set and get the player left turn key.
- string Nickname `[get, set]`

  Allows to set and get the nickname of the player.
- KeyCode RightKey `[get, set]`

  Allowst to set and get the player right turn key.

6.7.1 Detailed Description

Stores the initial values of a player.

These values are then sent from GUI to GameManager in order to create the players on the Arena.

6.7.2 Property Documentation

6.7.2.1 Color

```
Color ProjectScopes.PlayerInitialData.Color  [get], [set]
```

Allows to set and get the color of the player.

Player color is decribed by RGB values.

6.7.2.2 LeftKey

```
KeyCode ProjectScopes.PlayerInitialData.LeftKey  [get], [set]
```

Allowst to set and get the player left turn key.

The key value is individual for each player.

6.7.2.3 Nickname

```
string ProjectScopes.PlayerInitialData.Nickname  [get], [set]
```

Allows to set and get the nickname of the player.

Player nickname contains only capital letter and is limited to 9 characters.

6.7.2.4 RightKey

```
KeyCode ProjectScopes.PlayerInitialData.RightKey  [get], [set]
```

Allowst to set and get the player right turn key.

The key value is individual for each player.

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

- PlayerInitialData.cs

Chapter 7

File Documentation

7.1 Arena.cs File Reference

Contains Arena class definition.

Classes

- class ProjectScopes.Arena

  MonoBehavior for Arena prefab.

Namespaces

- namespace ProjectScopes

  A global namespace for project-scopes. Contains all project-scopes related classes.

7.1.1 Detailed Description

Contains Arena class definition.

Author

Marcin

7.2 Configurator.cs File Reference

Contains definition of Configurator class. author MicroScopes.

Classes

- class ProjectScopes.Configurator

  Stores the game configuration.

Namespaces

- namespace ProjectScopes

  A global namespace for project-scopes. Contains all project-scopes related classes.

7.2.1 Detailed Description

Contains definition of Configurator class. author MicroScopes.

7.3 GameManager.cs File Reference

Contains definition of GameManager class.

Classes

- class ProjectScopes.GameManager

  Main manager of the game.

Namespaces

- namespace ProjectScopes

  A global namespace for project-scopes. Contains all project-scopes related classes.

7.3.1 Detailed Description

Contains definition of GameManager class.

Author

Marcin

7.4 GUIHelper.cs File Reference

Contains definition of GUIHelper class.

Classes

- class **ProjectScopes.GUIHelper**

  This class provides methods for managing GUI elements.

Namespaces

- namespace ProjectScopes

  A global namespace for project-scopes. Contains all project-scopes related classes.

7.4.1 Detailed Description

Contains definition of GUIHelper class.

Author

MicroScopes

7.5 GUIManager.cs File Reference

Contains definition of GUIManager class.

Classes

- class ProjectScopes.GUIManager
  Collects user data from the Graphical User Interface.

Namespaces

- namespace ProjectScopes
  A global namespace for project-scopes. Contains all project-scopes related classes.

7.5.1 Detailed Description

Contains definition of GUIManager class.

Author

MicroScopes

7.6 PlayerInitialData.cs File Reference

Contains definition of PlayerInitialData class. author MicroScopes.

Classes

- class ProjectScopes.PlayerInitialData
  Stores the initial values of a player.

Namespaces

- namespace ProjectScopes
  A global namespace for project-scopes. Contains all project-scopes related classes.

7.6.1 Detailed Description

Contains definition of PlayerInitialData class. author MicroScopes.

Index