

## AEI Tower

Generated by Doxygen 1.9.4



<b>1 Hierarchical Index</b>	<b>1</b>
1.1 Class Hierarchy	1
<b>2 Class Index</b>	<b>3</b>
2.1 Class List	3
<b>3 File Index</b>	<b>5</b>
3.1 File List	5
<b>4 Class Documentation</b>	<b>7</b>
4.1 Chest Class Reference	7
4.1.1 Detailed Description	7
4.1.2 Member Function Documentation	7
4.1.2.1 Open()	8
4.1.3 Member Data Documentation	8
4.1.3.1 ChestOpenSprite	8
4.1.3.2 GameManager	8
4.1.3.3 IsOpen	8
4.2 Coin Class Reference	8
4.2.1 Detailed Description	9
4.2.2 Member Data Documentation	9
4.2.2.1 CollisionManager	9
4.3 CollisionManager Class Reference	9
4.3.1 Detailed Description	9
4.3.2 Member Function Documentation	10
4.3.2.1 OnChestCollisionWithDestroyer()	10
4.3.2.2 OnCoinCollisionWithDestroyer()	10
4.3.2.3 OnPlatformCollisionWithDestroyer()	10
4.3.2.4 OnPlayerCollisionWithChest()	10
4.3.2.5 OnPlayerCollisionWithCoin()	10
4.3.2.6 OnPlayerCollisionWithDestroyer()	11
4.3.2.7 OnPlayerCollisionWithPlatform()	11
4.3.3 Member Data Documentation	11
4.3.3.1 GameManager	11
4.4 Destroyer Class Reference	11
4.4.1 Detailed Description	12
4.4.2 Member Data Documentation	12
4.4.2.1 CollisionManager	12
4.4.2.2 EnableDestroyer	12
4.5 EntitiesManager Class Reference	12
4.5.1 Detailed Description	13
4.5.2 Member Function Documentation	13
4.5.2.1 RemoveChest()	13

4.5.2.2 RemoveCoin()	13
4.5.2.3 RemovePlatform()	13
4.5.2.4 Reset()	14
4.5.2.5 SpawnPlatform()	14
4.5.3 Member Data Documentation	14
4.5.3.1 Background	14
4.5.3.2 Camera	14
4.5.3.3 ChestChance	14
4.5.3.4 ChestPrefab	14
4.5.3.5 Chests	14
4.5.3.6 CoinPrefab	15
4.5.3.7 Coins	15
4.5.3.8 Destroyer	15
4.5.3.9 GameManager	15
4.5.3.10 MatrialsChance	15
4.5.3.11 PlatformPrefab	15
4.5.3.12 Platforms	15
4.5.3.13 Player	16
4.6 GameManager Class Reference	16
4.6.1 Detailed Description	16
4.6.2 Member Function Documentation	16
4.6.2.1 OnGameOver()	16
4.6.2.2 OnMainMenu()	17
4.6.2.3 OnNewGame()	17
4.6.2.4 OnWin()	17
4.6.3 Member Data Documentation	17
4.6.3.1 CollisionManager	17
4.6.3.2 EntitiesManager	17
4.6.3.3 ScoreManager	17
4.6.3.4 UIManager	17
4.7 GameUI Class Reference	18
4.7.1 Detailed Description	18
4.7.2 Member Function Documentation	18
4.7.2.1 DisplayMaterials()	18
4.7.2.2 DisplayMessage()	18
4.7.2.3 DisplayPoints()	19
4.7.3 Member Data Documentation	19
4.7.3.1 _currentMessageLifeTime	19
4.7.3.2 EctsPointsLabel	19
4.7.3.3 MaterialsLabel	19
4.7.3.4 MessageLifeTimeSeconds	19
4.7.3.5 MessagesLabel	19

---

4.8 MainCamera Class Reference	20
4.8.1 Detailed Description	20
4.8.2 Member Function Documentation	20
4.8.2.1 Reset()	20
4.8.3 Member Data Documentation	20
4.8.3.1 CameraSpeed	20
4.8.3.2 EnableMovement	21
4.8.3.3 InitialPosition	21
4.9 MainMenu Class Reference	21
4.9.1 Detailed Description	21
4.9.2 Member Function Documentation	21
4.9.2.1 OnExitClick()	22
4.9.2.2 OnMainMenuClick()	22
4.9.2.3 OnNewGameClick()	22
4.9.3 Member Data Documentation	22
4.9.3.1 GameManager	22
4.10 Platform Class Reference	22
4.10.1 Detailed Description	23
4.10.2 Member Data Documentation	23
4.10.2.1 CanBeDestroyed	23
4.10.2.2 CollisionManager	23
4.10.2.3 PointsForPlatform	23
4.11 Player Class Reference	23
4.11.1 Detailed Description	24
4.11.2 Member Function Documentation	24
4.11.2.1 Reset()	24
4.11.2.2 RunForrestRun()	24
4.11.3 Member Data Documentation	24
4.11.3.1 CanBeControlled	24
4.11.3.2 InitialPosition	24
4.11.3.3 Speed	25
4.12 PlayerAnimation Class Reference	25
4.12.1 Member Function Documentation	25
4.12.1.1 SetAnimation()	25
4.13 ScoreManager Class Reference	25
4.13.1 Detailed Description	26
4.13.2 Member Function Documentation	26
4.13.2.1 AddMaterials()	26
4.13.2.2 AddPoints()	26
4.13.2.3 Reset()	26
4.13.3 Member Data Documentation	27
4.13.3.1 GameManager	27

4.13.3.2	GameUI	27
4.13.3.3	WinScore	27
4.13.4	Property Documentation	27
4.13.4.1	Materials	27
4.13.4.2	Points	27
4.14	UIManager Class Reference	28
4.14.1	Detailed Description	28
4.14.2	Member Function Documentation	28
4.14.2.1	DisplayMessage()	28
4.14.2.2	LevelUp()	28
4.14.2.3	Reset()	29
4.14.2.4	SetView()	29
4.14.3	Member Data Documentation	29
4.14.3.1	GameBackgrounds	29
4.14.3.2	GameManager	29
4.14.3.3	GameOverUI	29
4.14.3.4	GameUI	29
4.14.3.5	MainMenuUI	29
4.14.3.6	WinBackground	30
4.14.3.7	WinUI	30
<b>5</b>	<b>File Documentation</b>	<b>31</b>
5.1	D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Animations/PlayerAnimation.cs File Reference	31
5.1.1	Enumeration Type Documentation	31
5.1.1.1	EnumPlayerAnimation	31
5.2	D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Chest.cs File Reference	31
5.3	D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Coin.cs File Reference	32
5.4	D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Destroyer.cs File Reference	32
5.5	D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/MainCamera.cs File Reference	32
5.6	D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Platform.cs File Reference	32
5.7	D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Player.cs File Reference	32
5.8	D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/CollisionManager.cs File Reference	32
5.9	D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/EntitiesManager.cs File Reference	33
5.9.1	Typedef Documentation	33
5.9.1.1	Random	33
5.10	D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/GameManager.cs File Reference	33
5.11	D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/ScoreManager.cs File Reference	33
5.12	D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/UIManager.cs File Reference	33
5.12.1	Enumeration Type Documentation	34
5.12.1.1	EnumUIView	34
5.13	D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/UI/GameUI.cs File Reference	34
5.14	D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/UI/MainMenu.cs File Reference	34







# Chapter 1

## Hierarchical Index

### 1.1 Class Hierarchy

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

MonoBehaviour	
Chest . . . . .	7
Coin . . . . .	8
CollisionManager . . . . .	9
Destroyer . . . . .	11
EntitiesManager . . . . .	12
GameManager . . . . .	16
GameUI . . . . .	18
MainCamera . . . . .	20
MainMenu . . . . .	21
Platform . . . . .	22
Player . . . . .	23
PlayerAnimation . . . . .	25
ScoreManager . . . . .	25
UIManager . . . . .	28



## Chapter 2

# Class Index

### 2.1 Class List

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

<a href="#">Chest</a>	7
<a href="#">Coin</a>	8
<a href="#">CollisionManager</a>	9
<a href="#">Destroyer</a>	11
<a href="#">EntitiesManager</a>	12
<a href="#">GameManager</a>	16
<a href="#">GameUI</a>	18
<a href="#">MainCamera</a>	20
<a href="#">MainMenu</a>	21
<a href="#">Platform</a>	22
<a href="#">Player</a>	23
<a href="#">PlayerAnimation</a>	25
<a href="#">ScoreManager</a>	25
<a href="#">UIManager</a>	28



## Chapter 3

# File Index

### 3.1 File List

Here is a list of all files with brief descriptions:

D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Animations/PlayerAnimation.cs . . . . .	31
D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Chest.cs . . . . .	31
D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Coin.cs . . . . .	32
D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Destroyer.cs . . . . .	32
D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/MainCamera.cs . . . . .	32
D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Platform.cs . . . . .	32
D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Player.cs . . . . .	32
D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/CollisionManager.cs . . . . .	32
D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/EntitiesManager.cs . . . . .	33
D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/GameManager.cs . . . . .	33
D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/ScoreManager.cs . . . . .	33
D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/UIManager.cs . . . . .	33
D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/UI/GameUI.cs . . . . .	34
D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/UI/MainMenu.cs . . . . .	34

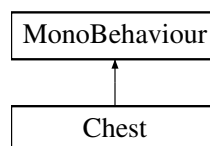


## Chapter 4

# Class Documentation

### 4.1 Chest Class Reference

Inheritance diagram for Chest:



#### Public Member Functions

- void [Open](#) ()

#### Public Attributes

- bool [IsOpen](#) = false
- Sprite [ChestOpenSprite](#)
- [GameManager](#) [GameManager](#)

#### 4.1.1 Detailed Description

[Chest](#) class

#### 4.1.2 Member Function Documentation

#### 4.1.2.1 Open()

```
void Chest.Open ( )
```

Opens chest.

### 4.1.3 Member Data Documentation

#### 4.1.3.1 ChestOpenSprite

```
Sprite Chest.ChestOpenSprite
```

Sprite of opened chest

#### 4.1.3.2 GameManager

```
GameManager Chest.GameManager
```

Game manager reference

#### 4.1.3.3 IsOpen

```
bool Chest.IsOpen = false
```

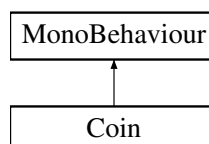
Is chest opened

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

- D:/Projects/Polis/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/[Chest.cs](#)

## 4.2 Coin Class Reference

Inheritance diagram for Coin:



### Public Attributes

- [CollisionManager](#) [CollisionManager](#)



### 4.2.1 Detailed Description

[Coin](#) class

### 4.2.2 Member Data Documentation

#### 4.2.2.1 CollisionManager

[CollisionManager](#) `Coin.CollisionManager`

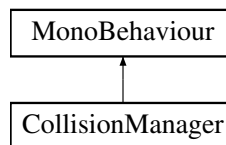
Reference to collision manager

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

- `D:/Projects/Polis/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Coin.cs`

## 4.3 CollisionManager Class Reference

Inheritance diagram for CollisionManager:



### Public Member Functions

- void [OnPlayerCollisionWithPlatform](#) ([Platform](#) platform, [Player](#) player, Collision2D collision)
- void [OnPlayerCollisionWithDestroyer](#) ([Destroyer](#) destroyer, [Player](#) player)
- void [OnPlayerCollisionWithCoin](#) ([Coin](#) coin, [Player](#) player)
- void [OnPlayerCollisionWithChest](#) ([Chest](#) chest, [Player](#) player)
- void [OnPlatformCollisionWithDestroyer](#) ([Destroyer](#) destroyer, [Platform](#) platform)
- void [OnCoinCollisionWithDestroyer](#) ([Destroyer](#) destroyer, [Coin](#) coin)
- void [OnChestCollisionWithDestroyer](#) ([Destroyer](#) destroyer, [Chest](#) chest)

### Public Attributes

- [GameManager](#) `GameManager`

### 4.3.1 Detailed Description

Collision manager class

## 4.3.2 Member Function Documentation

### 4.3.2.1 OnChestCollisionWithDestroyer()

```
void CollisionManager.OnChestCollisionWithDestroyer (
    Destroyer destroyer,
    Chest chest )
```

[Chest](#) collision with destroyer logic

### 4.3.2.2 OnCoinCollisionWithDestroyer()

```
void CollisionManager.OnCoinCollisionWithDestroyer (
    Destroyer destroyer,
    Coin coin )
```

[Coin](#) collision with destroyer logic

### 4.3.2.3 OnPlatformCollisionWithDestroyer()

```
void CollisionManager.OnPlatformCollisionWithDestroyer (
    Destroyer destroyer,
    Platform platform )
```

[Platform](#) collision with destroyer logic

### 4.3.2.4 OnPlayerCollisionWithChest()

```
void CollisionManager.OnPlayerCollisionWithChest (
    Chest chest,
    Player player )
```

[Player](#) collision with chest logic

### 4.3.2.5 OnPlayerCollisionWithCoin()

```
void CollisionManager.OnPlayerCollisionWithCoin (
    Coin coin,
    Player player )
```

[Player](#) collision with coin logic

#### 4.3.2.6 OnPlayerCollisionWithDestroyer()

```
void CollisionManager.OnPlayerCollisionWithDestroyer (
    Destroyer destroyer,
    Player player )
```

[Player](#) collision with destroyer logic

#### 4.3.2.7 OnPlayerCollisionWithPlatform()

```
void CollisionManager.OnPlayerCollisionWithPlatform (
    Platform platform,
    Player player,
    Collision2D collision )
```

[Player](#) collision with platform logic

### 4.3.3 Member Data Documentation

#### 4.3.3.1 GameManager

[GameManager](#) CollisionManager.GameManager

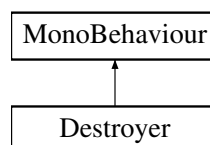
Reference to game manager

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

- D:/Projects/Polis/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/[CollisionManager.cs](#)

## 4.4 Destroyer Class Reference

Inheritance diagram for Destroyer:



### Public Attributes

- [CollisionManager](#) [CollisionManager](#)
- bool [EnableDestroyer](#) = true

### 4.4.1 Detailed Description

[Destroyer](#) class

### 4.4.2 Member Data Documentation

#### 4.4.2.1 CollisionManager

[CollisionManager](#) `Destroyer.CollisionManager`

Reference to collision manager

#### 4.4.2.2 EnableDestroyer

```
bool Destroyer.EnableDestroyer = true
```

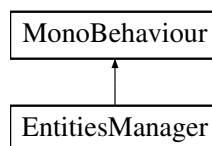
Enables destroyer interactions

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

- `D:/Projects/Polis/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Destroyer.cs`

## 4.5 EntitiesManager Class Reference

Inheritance diagram for EntitiesManager:



### Public Member Functions

- void [Reset](#) ()
- void [RemovePlatform](#) (GameObject platform)
- void [RemoveCoin](#) (GameObject coin)
- void [RemoveChest](#) (GameObject chest)
- void [SpawnPlatform](#) ()

## Public Attributes

- [Player](#) `Player`
- [MainCamera](#) `Camera`
- [Destroyer](#) `Destroyer`
- `SpriteRenderer` `Background`
- [GameManager](#) `GameManager`
- `ICollection< GameObject >` `Platforms` = `new List<GameObject>()`
- `ICollection< GameObject >` `Coins` = `new List<GameObject>()`
- `ICollection< GameObject >` `Chests` = `new List<GameObject>()`
- `GameObject` `PlatformPrefab`
- `GameObject` `CoinPrefab`
- `GameObject` `ChestPrefab`
- `float` `MatrialsChance` = `0.25f`
- `float` `ChestChance` = `0.10f`

### 4.5.1 Detailed Description

Entities manager class

### 4.5.2 Member Function Documentation

#### 4.5.2.1 RemoveChest()

```
void EntityManager.RemoveChest (
    GameObject chest )
```

Remove chest

#### 4.5.2.2 RemoveCoin()

```
void EntityManager.RemoveCoin (
    GameObject coin )
```

Remove coin

#### 4.5.2.3 RemovePlatform()

```
void EntityManager.RemovePlatform (
    GameObject platform )
```

Remove platform

#### 4.5.2.4 Reset()

```
void EntitiesManager.Reset ( )
```

Reset game state

#### 4.5.2.5 SpawnPlatform()

```
void EntitiesManager.SpawnPlatform ( )
```

Spawn platform

### 4.5.3 Member Data Documentation

#### 4.5.3.1 Background

```
SpriteRenderer EntitiesManager.Background
```

Reference to backgorund

#### 4.5.3.2 Camera

```
MainCamera EntitiesManager.Camera
```

Reference to camera

#### 4.5.3.3 ChestChance

```
float EntitiesManager.ChestChance = 0.10f
```

Chance of spawning chest. Effective range 0-1

#### 4.5.3.4 ChestPrefab

```
GameObject EntitiesManager.ChestPrefab
```

Reference to chest prefab

#### 4.5.3.5 Chests

```
ICollection<GameObject> EntitiesManager.Chests = new List<GameObject>()
```

Collection of generated chests

#### 4.5.3.6 CoinPrefab

```
GameObject EntityManager.CoinPrefab
```

Reference to coin prefab

#### 4.5.3.7 Coins

```
ICollection<GameObject> EntityManager.Coins = new List<GameObject>()
```

Collection of generated coins

#### 4.5.3.8 Destroyer

```
Destroyer EntityManager.Destroyer
```

Reference to destroyer

#### 4.5.3.9 GameManager

```
GameManager EntityManager.GameManager
```

Reference to game manager

#### 4.5.3.10 MatrialsChance

```
float EntityManager.MatrialsChance = 0.25f
```

Chance of spawning materials. Effective range 0-1

#### 4.5.3.11 PlatformPrefab

```
GameObject EntityManager.PlatformPrefab
```

Reference to player prefab

#### 4.5.3.12 Platforms

```
ICollection<GameObject> EntityManager.Platforms = new List<GameObject>()
```

Collection of generated platforms

#### 4.5.3.13 Player

`Player` `EntitiesManager.Player`

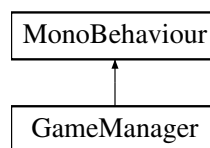
Reference to player

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

- `D:/Projects/Polis/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/EntitiesManager.cs`

## 4.6 GameManager Class Reference

Inheritance diagram for GameManager:



### Public Member Functions

- void `OnMainMenu` ()
- void `OnNewGame` ()
- void `OnWin` ()
- void `OnGameOver` ()

### Public Attributes

- `UIManager` `UIManager`
- `EntitiesManager` `EntitiesManager`
- `CollisionManager` `CollisionManager`
- `ScoreManager` `ScoreManager`

### 4.6.1 Detailed Description

Game manager class

### 4.6.2 Member Function Documentation

#### 4.6.2.1 OnGameOver()

`void GameManager.OnGameOver ( )`

`Player` lose logic



#### 4.6.2.2 OnMainMenu()

```
void GameManager.OnMainMenu ( )
```

Open main menu

#### 4.6.2.3 OnNewGame()

```
void GameManager.OnNewGame ( )
```

Start new game

#### 4.6.2.4 OnWin()

```
void GameManager.OnWin ( )
```

[Player](#) victory logic

### 4.6.3 Member Data Documentation

#### 4.6.3.1 CollisionManager

```
CollisionManager GameManager.CollisionManager
```

Reference to collision manager

#### 4.6.3.2 EntitiesManager

```
EntitiesManager GameManager.EntitiesManager
```

Reference to entities manager

#### 4.6.3.3 ScoreManager

```
ScoreManager GameManager.ScoreManager
```

Reference to score manager

#### 4.6.3.4 UIManager

```
UIManager GameManager.UIManager
```

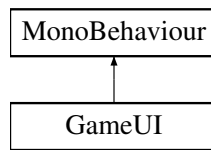
Reference to UI manager

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

- D:/Projects/Polis/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/[GameManager.cs](#)

## 4.7 GameUI Class Reference

Inheritance diagram for GameUI:



### Public Member Functions

- void [DisplayPoints](#) (int points)
- void [DisplayMaterials](#) (int materials)
- void [DisplayMessage](#) (string message)

### Public Attributes

- TMP\_Text [EctsPointsLabel](#)
- TMP\_Text [MaterialsLabel](#)
- TMP\_Text [MessagesLabel](#)
- float [MessageLifeTimeSeconds](#) = 3
- float [\\_currentMessageLifeTime](#) = 0

### 4.7.1 Detailed Description

Game UI class

### 4.7.2 Member Function Documentation

#### 4.7.2.1 DisplayMaterials()

```
void GameUI.DisplayMaterials (  
    int materials )
```

Update materials label

#### 4.7.2.2 DisplayMessage()

```
void GameUI.DisplayMessage (  
    string message )
```

Enqueue message to display

#### 4.7.2.3 DisplayPoints()

```
void GameUI.DisplayPoints (
    int points )
```

Update points label

### 4.7.3 Member Data Documentation

#### 4.7.3.1 \_currentMessageLifeTime

```
float GameUI._currentMessageLifeTime = 0
```

Time of displaying of current message

#### 4.7.3.2 EctsPointsLabel

```
TMP_Text GameUI.EctsPointsLabel
```

Reference to points label

#### 4.7.3.3 MaterialsLabel

```
TMP_Text GameUI.MaterialsLabel
```

Reference to materials label

#### 4.7.3.4 MessageLifeTimeSeconds

```
float GameUI.MessageLifeTimeSeconds = 3
```

Time of displaying of single message

#### 4.7.3.5 MessagesLabel

```
TMP_Text GameUI.MessagesLabel
```

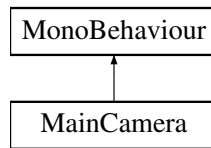
Reference to messages label

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

- D:/Projects/Polis/AEI-Tower/AEI-Tower/Assets/Scripts/UI/[GameUI.cs](#)

## 4.8 MainCamera Class Reference

Inheritance diagram for MainCamera:



### Public Member Functions

- void [Reset](#) ()

### Public Attributes

- bool [EnableMovement](#) = false
- float [CameraSpeed](#) = 0.01f
- Vector3 [InitialPosition](#) = new Vector3(0f, 0f, -20f)

### 4.8.1 Detailed Description

Main camera class

### 4.8.2 Member Function Documentation

#### 4.8.2.1 Reset()

```
void MainCamera.Reset ( )
```

### 4.8.3 Member Data Documentation

#### 4.8.3.1 CameraSpeed

```
float MainCamera.CameraSpeed = 0.01f
```

Speed of the camera

#### 4.8.3.2 EnableMovement

```
bool MainCamera.EnableMovement = false
```

Enables movement of the camera

#### 4.8.3.3 InitialPosition

```
Vector3 MainCamera.InitialPosition = new Vector3(0f, 0f, -20f)
```

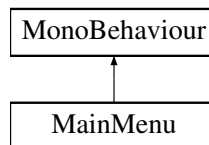
Initial position of the camera

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

- D:/Projects/Polis/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/[MainCamera.cs](#)

## 4.9 MainMenu Class Reference

Inheritance diagram for MainMenu:



### Public Member Functions

- void [OnNewGameClick](#) ()
- void [OnMainMenuClick](#) ()
- void [OnExitClick](#) ()

### Public Attributes

- [GameManager](#) [GameManager](#)

#### 4.9.1 Detailed Description

Main menu class

#### 4.9.2 Member Function Documentation

#### 4.9.2.1 OnExitClick()

```
void MainMenu.OnExitClick ( )
```

When exit button was pressed

#### 4.9.2.2 OnMainMenuClick()

```
void MainMenu.OnMainMenuClick ( )
```

When main menu button was pressed

#### 4.9.2.3 OnNewGameClick()

```
void MainMenu.OnNewGameClick ( )
```

When new game button was pressed

### 4.9.3 Member Data Documentation

#### 4.9.3.1 GameManager

```
GameManager MainMenu.GameManager
```

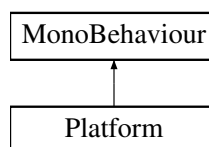
Reference to game manager

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

- D:/Projects/Polis/AEI-Tower/AEI-Tower/Assets/Scripts/UI/[MainMenu.cs](#)

## 4.10 Platform Class Reference

Inheritance diagram for Platform:



### Public Attributes

- [CollisionManager](#) CollisionManager
- bool [CanBeDestroyed](#) = true
- int [PointsForPlatform](#) = 1

### 4.10.1 Detailed Description

[Platform](#) class

### 4.10.2 Member Data Documentation

#### 4.10.2.1 CanBeDestroyed

```
bool Platform.CanBeDestroyed = true
```

Can platform be destroyed

#### 4.10.2.2 CollisionManager

```
CollisionManager Platform.CollisionManager
```

Reference to collision manager

#### 4.10.2.3 PointsForPlatform

```
int Platform.PointsForPlatform = 1
```

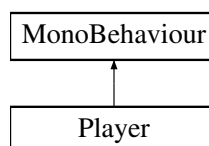
Points assigned to platform

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

- D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/[Platform.cs](#)

## 4.11 Player Class Reference

Inheritance diagram for Player:



### Public Member Functions

- void [RunForrestRun](#) ()
- void [Reset](#) ()

## Public Attributes

- bool `CanBeControlled` = true
- Vector2 `Speed` = new Vector2(15, 35)
- Vector2 `InitialPosition` = new Vector2(4.1638f, -1.91f)

### 4.11.1 Detailed Description

`Player` class

### 4.11.2 Member Function Documentation

#### 4.11.2.1 Reset()

```
void Player.Reset ( )
```

Reset player

#### 4.11.2.2 RunForrestRun()

```
void Player.RunForrestRun ( )
```

Bounce player up

### 4.11.3 Member Data Documentation

#### 4.11.3.1 CanBeControlled

```
bool Player.CanBeControlled = true
```

Enables movement logic

#### 4.11.3.2 InitialPosition

```
Vector2 Player.InitialPosition = new Vector2(4.1638f, -1.91f)
```

Initial position of the player



#### 4.11.3.3 Speed

```
Vector2 Player.Speed = new Vector2(15, 35)
```

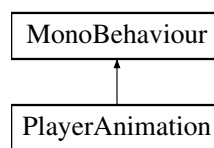
Speed of the player

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

- D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/[Player.cs](#)

## 4.12 PlayerAnimation Class Reference

Inheritance diagram for PlayerAnimation:



### Public Member Functions

- void [SetAnimation](#) ([EnumPlayerAnimation](#) animation)

#### 4.12.1 Member Function Documentation

##### 4.12.1.1 SetAnimation()

```
void PlayerAnimation.SetAnimation (  
    EnumPlayerAnimation animation )
```

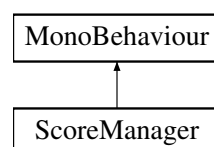
Sets current animation of the player.

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

- D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Animations/[PlayerAnimation.cs](#)

## 4.13 ScoreManager Class Reference

Inheritance diagram for ScoreManager:



## Public Member Functions

- void [AddPoints](#) (int points)
- void [AddMaterials](#) (int materials)
- void [Reset](#) ()

## Public Attributes

- [GameUI](#) [GameUI](#)
- [GameManager](#) [GameManager](#)
- int [WinScore](#) = 20

## Properties

- int [Points](#) [get]
- int [Materials](#) [get]

### 4.13.1 Detailed Description

Score manager class

### 4.13.2 Member Function Documentation

#### 4.13.2.1 AddMaterials()

```
void ScoreManager.AddMaterials (  
    int materials )
```

Increase player materials

#### 4.13.2.2 AddPoints()

```
void ScoreManager.AddPoints (  
    int points )
```

Increase player score

#### 4.13.2.3 Reset()

```
void ScoreManager.Reset ( )
```

Reset state

### 4.13.3 Member Data Documentation

#### 4.13.3.1 GameManager

[GameManager](#) `ScoreManager.GameManager`

Reference to game manager

#### 4.13.3.2 GameUI

[GameUI](#) `ScoreManager.GameUI`

Reference to UI

#### 4.13.3.3 WinScore

`int ScoreManager.WinScore = 20`

Points required to win the game

### 4.13.4 Property Documentation

#### 4.13.4.1 Materials

`int ScoreManager.Materials [get]`

Getter of player materials

#### 4.13.4.2 Points

`int ScoreManager.Points [get]`

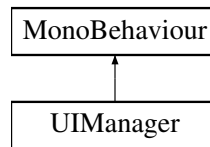
Getter of player points

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

- `D:/Projects/Polis/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/ScoreManager.cs`

## 4.14 UIManager Class Reference

Inheritance diagram for UIManager:



### Public Member Functions

- void [Reset](#) ()
- void [LevelUp](#) ()
- void [SetView](#) ([EnumUIView](#) uiView)
- void [DisplayMessage](#) (string message)

### Public Attributes

- GameObject [GameUI](#)
- GameObject [GameOverUI](#)
- GameObject [MainMenuUI](#)
- GameObject [WinUI](#)
- [GameManager](#) [GameManager](#)
- List< Sprite > [GameBackgrounds](#) = new List<Sprite>()
- Sprite [WinBackground](#)

#### 4.14.1 Detailed Description

UI manager class

#### 4.14.2 Member Function Documentation

##### 4.14.2.1 DisplayMessage()

```
void UIManager.DisplayMessage (  
    string message )
```

Display message

##### 4.14.2.2 LevelUp()

```
void UIManager.LevelUp ( )
```

Update UI on level up

#### 4.14.2.3 Reset()

```
void UIManager.Reset ( )
```

Reset state

#### 4.14.2.4 SetView()

```
void UIManager.SetView (
    EnumUIView uiView )
```

Change game view

### 4.14.3 Member Data Documentation

#### 4.14.3.1 GameBackgrounds

```
List<Sprite> UIManager.GameBackgrounds = new List<Sprite>()
```

Collection of game backgrounds

#### 4.14.3.2 GameManager

```
GameManager UIManager.GameManager
```

Reference to game manager

#### 4.14.3.3 GameOverUI

```
GameObject UIManager.GameOverUI
```

Reference to game over view

#### 4.14.3.4 GameUI

```
GameObject UIManager.GameUI
```

Reference to UI

#### 4.14.3.5 MainMenuUI

```
GameObject UIManager.MainMenuUI
```

Reference to main menu view

#### 4.14.3.6 WinBackground

`Sprite UIManager.WinBackground`

Reference to victory background

#### 4.14.3.7 WinUI

`GameObject UIManager.WinUI`

Reference to win view

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

- `D:/Projects/Polis/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/`[UIManager.cs](#)

## Chapter 5

# File Documentation

### 5.1 D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Animations/↔ PlayerAnimation.cs File Reference

#### Classes

- class [PlayerAnimation](#)

#### Enumerations

- enum [EnumPlayerAnimation](#) { [Idle](#) , [Jump](#) }

#### 5.1.1 Enumeration Type Documentation

##### 5.1.1.1 EnumPlayerAnimation

enum [EnumPlayerAnimation](#)

#### Enumerator

Idle	
Jump	

### 5.2 D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Game↔ Entities/Chest.cs File Reference

#### Classes

- class [Chest](#)

### 5.3 D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Coin.cs File Reference↔

#### Classes

- class [Coin](#)

### 5.4 D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Destroyer.cs File Reference↔

#### Classes

- class [Destroyer](#)

### 5.5 D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/MainCamera.cs File Reference↔

#### Classes

- class [MainCamera](#)

### 5.6 D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Platform.cs File Reference↔

#### Classes

- class [Platform](#)

### 5.7 D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Player.cs File Reference↔

#### Classes

- class [Player](#)

### 5.8 D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/CollisionManager.cs File Reference↔

#### Classes

- class [CollisionManager](#)



## 5.9 D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/EntitiesManager.cs File Reference ↵

### Classes

- class [EntitiesManager](#)

### Typedefs

- using [Random](#) = UnityEngine.Random

#### 5.9.1 Typedef Documentation

##### 5.9.1.1 Random

```
using Random = UnityEngine.Random
```

## 5.10 D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/GameManager.cs File Reference ↵

### Classes

- class [GameManager](#)

## 5.11 D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/ScoreManager.cs File Reference ↵

### Classes

- class [ScoreManager](#)

## 5.12 D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/UIManager.cs File Reference ↵

### Classes

- class [UIManager](#)

## Enumerations

- enum [EnumUIView](#) { [Game](#) , [GameOver](#) , [MainMenu](#) , [Win](#) }

### 5.12.1 Enumeration Type Documentation

#### 5.12.1.1 EnumUIView

enum [EnumUIView](#)

Enum of game views

Enumerator

Game	
GameOver	
MainMenu	
Win	

### 5.13 D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/UI/GameUI.cs File Reference

#### Classes

- class [GameUI](#)

### 5.14 D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/UI/MainMenu.cs File Reference

#### Classes

- class [MainMenu](#)

# Index

`_currentMessageLifeTime`  
    GameUI, [19](#)

AddMaterials  
    ScoreManager, [26](#)  
AddPoints  
    ScoreManager, [26](#)

Background  
    EntitiesManager, [14](#)

Camera  
    EntitiesManager, [14](#)  
CameraSpeed  
    MainCamera, [20](#)

CanBeControlled  
    Player, [24](#)

CanBeDestroyed  
    Platform, [23](#)

Chest, [7](#)  
    ChestOpenSprite, [8](#)  
    GameManager, [8](#)  
    IsOpen, [8](#)  
    Open, [7](#)

ChestChance  
    EntitiesManager, [14](#)

ChestOpenSprite  
    Chest, [8](#)

ChestPrefab  
    EntitiesManager, [14](#)

Chests  
    EntitiesManager, [14](#)

Coin, [8](#)  
    CollisionManager, [9](#)

CoinPrefab  
    EntitiesManager, [14](#)

Coins  
    EntitiesManager, [15](#)

CollisionManager, [9](#)  
    Coin, [9](#)  
    Destroyer, [12](#)  
    GameManager, [11](#), [17](#)  
    OnChestCollisionWithDestroyer, [10](#)  
    OnCoinCollisionWithDestroyer, [10](#)  
    OnPlatformCollisionWithDestroyer, [10](#)  
    OnPlayerCollisionWithChest, [10](#)  
    OnPlayerCollisionWithCoin, [10](#)  
    OnPlayerCollisionWithDestroyer, [10](#)  
    OnPlayerCollisionWithPlatform, [11](#)  
    Platform, [23](#)

D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Animations/PlayerA  
    [31](#)

D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Chest  
    [31](#)

D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Coin.  
    [32](#)

D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Destr  
    [32](#)

D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/MainC  
    [32](#)

D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Platfo  
    [32](#)

D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/GameEntities/Playe  
    [32](#)

D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/CollisionM  
    [32](#)

D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/EntitiesM  
    [33](#)

D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/GameMa  
    [33](#)

D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/ScoreMa  
    [33](#)

D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/Managers/UIManag  
    [33](#)

D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/UI/GameUI.cs,  
    [34](#)

D:/Projects/Polsl/AEI-Tower/AEI-Tower/Assets/Scripts/UI/MainMenu.cs,  
    [34](#)

Destroyer, [11](#)  
    CollisionManager, [12](#)  
    EnableDestroyer, [12](#)  
    EntitiesManager, [15](#)

DisplayMaterials  
    GameUI, [18](#)

DisplayMessage  
    GameUI, [18](#)  
    UIManager, [28](#)

DisplayPoints  
    GameUI, [18](#)

EctsPointsLabel  
    GameUI, [19](#)  
EnableDestroyer  
    Destroyer, [12](#)  
EnableMovement  
    MainCamera, [20](#)  
EntitiesManager, [12](#)  
    Background, [14](#)  
    Camera, [14](#)  
    ChestChance, [14](#)

- ChestPrefab, 14
- Chests, 14
- CoinPrefab, 14
- Coins, 15
- Destroyer, 15
- GameManager, 15, 17
- MatrilsChance, 15
- PlatformPrefab, 15
- Platforms, 15
- Player, 15
- RemoveChest, 13
- RemoveCoin, 13
- RemovePlatform, 13
- Reset, 13
- SpawnPlatform, 14
- EntitiesManager.cs
  - Random, 33
- EnumPlayerAnimation
  - PlayerAnimation.cs, 31
- EnumUIView
  - UIManager.cs, 34
- Game
  - UIManager.cs, 34
- GameBackgrounds
  - UIManager, 29
- GameManager, 16
  - Chest, 8
  - CollisionManager, 11, 17
  - EntitiesManager, 15, 17
  - MainMenu, 22
  - OnGameOver, 16
  - OnMainMenu, 16
  - OnNewGame, 17
  - OnWin, 17
  - ScoreManager, 17, 27
  - UIManager, 17, 29
- GameOver
  - UIManager.cs, 34
- GameOverUI
  - UIManager, 29
- GameUI, 18
  - \_currentMessageLifeTime, 19
  - DisplayMaterials, 18
  - DisplayMessage, 18
  - DisplayPoints, 18
  - EctsPointsLabel, 19
  - MaterialsLabel, 19
  - MessageLifeTimeSeconds, 19
  - MessagesLabel, 19
  - ScoreManager, 27
  - UIManager, 29
- Idle
  - PlayerAnimation.cs, 31
- InitialPosition
  - MainCamera, 21
  - Player, 24
- IsOpen
  - Chest, 8
- Jump
  - PlayerAnimation.cs, 31
- LevelUp
  - UIManager, 28
- MainCamera, 20
  - CameraSpeed, 20
  - EnableMovement, 20
  - InitialPosition, 21
  - Reset, 20
- MainMenu, 21
  - GameManager, 22
  - OnExitClick, 21
  - OnMainMenuClick, 22
  - OnNewGameClick, 22
  - UIManager.cs, 34
- MainMenuUI
  - UIManager, 29
- Materials
  - ScoreManager, 27
- MaterialsLabel
  - GameUI, 19
- MatrilsChance
  - EntitiesManager, 15
- MessageLifeTimeSeconds
  - GameUI, 19
- MessagesLabel
  - GameUI, 19
- OnChestCollisionWithDestroyer
  - CollisionManager, 10
- OnCoinCollisionWithDestroyer
  - CollisionManager, 10
- OnExitClick
  - MainMenu, 21
- OnGameOver
  - GameManager, 16
- OnMainMenu
  - GameManager, 16
- OnMainMenuClick
  - MainMenu, 22
- OnNewGame
  - GameManager, 17
- OnNewGameClick
  - MainMenu, 22
- OnPlatformCollisionWithDestroyer
  - CollisionManager, 10
- OnPlayerCollisionWithChest
  - CollisionManager, 10
- OnPlayerCollisionWithCoin
  - CollisionManager, 10
- OnPlayerCollisionWithDestroyer
  - CollisionManager, 10
- OnPlayerCollisionWithPlatform
  - CollisionManager, 11
- OnWin

- GameManager, [17](#)
- Open
  - Chest, [7](#)
- Platform, [22](#)
  - CanBeDestroyed, [23](#)
  - CollisionManager, [23](#)
  - PointsForPlatform, [23](#)
- PlatformPrefab
  - EntitiesManager, [15](#)
- Platforms
  - EntitiesManager, [15](#)
- Player, [23](#)
  - CanBeControlled, [24](#)
  - EntitiesManager, [15](#)
  - InitialPosition, [24](#)
  - Reset, [24](#)
  - RunForrestRun, [24](#)
  - Speed, [24](#)
- PlayerAnimation, [25](#)
  - SetAnimation, [25](#)
- PlayerAnimation.cs
  - EnumPlayerAnimation, [31](#)
  - Idle, [31](#)
  - Jump, [31](#)
- Points
  - ScoreManager, [27](#)
- PointsForPlatform
  - Platform, [23](#)
- Random
  - EntitiesManager.cs, [33](#)
- RemoveChest
  - EntitiesManager, [13](#)
- RemoveCoin
  - EntitiesManager, [13](#)
- RemovePlatform
  - EntitiesManager, [13](#)
- Reset
  - EntitiesManager, [13](#)
  - MainCamera, [20](#)
  - Player, [24](#)
  - ScoreManager, [26](#)
  - UIManager, [28](#)
- RunForrestRun
  - Player, [24](#)
- ScoreManager, [25](#)
  - AddMaterials, [26](#)
  - AddPoints, [26](#)
  - GameManager, [17](#), [27](#)
  - GameUI, [27](#)
  - Materials, [27](#)
  - Points, [27](#)
  - Reset, [26](#)
  - WinScore, [27](#)
- SetAnimation
  - PlayerAnimation, [25](#)
- SetView
  - UIManager, [29](#)
- SpawnPlatform
  - EntitiesManager, [14](#)
- Speed
  - Player, [24](#)
- UIManager, [28](#)
  - DisplayMessage, [28](#)
  - GameBackgrounds, [29](#)
  - GameManager, [17](#), [29](#)
  - GameOverUI, [29](#)
  - GameUI, [29](#)
  - LevelUp, [28](#)
  - MainMenuUI, [29](#)
  - Reset, [28](#)
  - SetView, [29](#)
  - WinBackground, [29](#)
  - WinUI, [30](#)
- UIManager.cs
  - EnumUIView, [34](#)
  - Game, [34](#)
  - GameOver, [34](#)
  - MainMenu, [34](#)
  - Win, [34](#)
- Win
  - UIManager.cs, [34](#)
- WinBackground
  - UIManager, [29](#)
- WinScore
  - ScoreManager, [27](#)
- WinUI
  - UIManager, [30](#)