cosmos

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

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

Chapter 2

Class Index

2.1 Class List

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

Chapter 3

File Index

3.1 File List

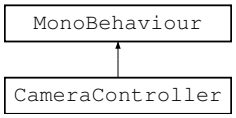
Here is a list of all documented files with brief descriptions:

Chapter 4

Class Documentation

4.1 CameraController Class Reference

Inheritance diagram for CameraController:



Public Attributes

- GraphGenerator **graphGenerator**
- float **mouseRotationSpeed** = 3.0f

4.1.1 Detailed Description

Monobehaviour. Controlls camera movement and zooming.

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

- CameraController.cs

4.2 Connection Class Reference

Public Attributes

- Planet **planetFrom**
- float **Length** => (planetFrom.transform.position - planetTo.transform.position).magnitude

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

- Connection.cs

4.3 Graph Class Reference

Core class for any low-level graph manipulations.

Public Member Functions

- Vector3 GetSize ()
- float GetRadius ()
- bool AreConnected (PlanetSystem node1, PlanetSystem node2)
- List< PlanetSystem > GetNeighbors (PlanetSystem node)
- void NormalizeLocation ()

Public Attributes

- List< PlanetSystem > nodes
- bool[,] **connections**

Properties

- PlanetSystem **this[int index]** `[get]`
- bool **this[int i, int j]** `[get]`

4.3.1 Detailed Description

Core class for any low-level graph manipulations.

4.3.2 Member Function Documentation

4.3.2.1 AreConnected()

```
bool Graph.AreConnected (
            PlanetSystem node1,
            PlanetSystem node2 )  [inline]
```

Returns true if given nodes are connected and false otherwise.

4.3.2.2 GetNeighbors()

```
List<PlanetSystem> Graph.GetNeighbors (
            PlanetSystem node )  [inline]
```

Returns list of nodes which are connected to the given one.

4.3.2.3 GetRadius()

```
float Graph.GetRadius ( )  [inline]
```

Returns a half of max distance between two nodes.

4.3.2.4 GetSize()

```
Vector3 Graph.GetSize ( )  [inline]
```

Returns Vector3 width dimentions of cube which this graph can be fitted in.

4.3.2.5 NormalizeLocation()

```
void Graph.NormalizeLocation ( )  [inline]
```

Shifts all nodes so that the center of the entire graph is located at zero.

Used in Generate method only.

4.3.3 Member Data Documentation

4.3.3.1 nodes

```
List<PlanetSystem> Graph.nodes
```

List of nodes that are exist in graph and connections between them. (graph is bidirectional: connections[i,j] = connections[j,i]).

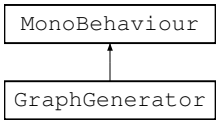
The documentation for this class was generated from the following file:

- Graph.cs

4.4 GraphGenerator Class Reference

Monobehaviour. Graph generator and holder.

Inheritance diagram for GraphGenerator:



Public Member Functions

- void GenerateGraph ()
- PlanetSystem GeneratePlanetSystem (int planetsAmount)
- void ClearGraph ()

Public Attributes

- int systemsAmount = 10
- float systemDistance = 3.0f
- int planetsAmount = 3
- float planetOrbitStep = 0.4f
- GameObject planetPrefab
- GameObject **systemPrefab**
- GameObject **connectionPrefab**
- Graph graph

4.4.1 Detailed Description

Monobehaviour. Graph generator and holder.

4.4.2 Member Function Documentation

4.4.2.1 ClearGraph()

```
void GraphGenerator.ClearGraph ( )  [inline]
```

Destroys all spawned pbjects and resets graph to null.

4.4.2.2 GenerateGraph()

```
void GraphGenerator.GenerateGraph ( )  [inline]
```

Generates new Graph.

Maximum distance will be calculated from minimum as follows: max = min ∗ (sqrt(2) - 0.1)

4.4.2.3 GeneratePlanetSystem()

```
PlanetSystem GraphGenerator.GeneratePlanetSystem (
            int planetsAmount )  [inline]
```

Randomly generates new system with given planets amount.

4.4.3 Member Data Documentation

4.4.3.1 graph

```
Graph GraphGenerator.graph
```

Actual low-level graph object.

4.4.3.2 planetOrbitStep

```
float GraphGenerator.planetOrbitStep = 0.4f
```

Planet orbits radius step.

4.4.3.3 planetPrefab

```
GameObject GraphGenerator.planetPrefab
```

Prefabs for planets, systems and connections between systems.

4.4.3.4 planetsAmount

```
int GraphGenerator.planetsAmount = 3
```

Amount of planets in one system.

4.4.3.5 systemDistance

```
float GraphGenerator.systemDistance = 3.0f
```

Minimum distance between two systems.

4.4.3.6 systemsAmount

```
int GraphGenerator.systemsAmount = 10
```

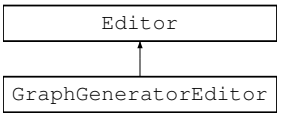
Amount of planet systems to generate.

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

- GraphGenerator.cs

4.5 GraphGeneratorEditor Class Reference

Inheritance diagram for GraphGeneratorEditor:



Public Member Functions

- override void **OnInspectorGUI** ()

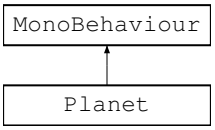
The documentation for this class was generated from the following file:

- GraphGeneratorEditor.cs

4.6 Planet Class Reference

Basic class for Planet logic.

Inheritance diagram for Planet:



Public Attributes

- int **banksAmount** = 1
- int **factoryAmount** = 1

4.6.1 Detailed Description

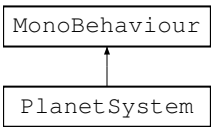
Basic class for Planet logic.

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

- Planet.cs

4.7 PlanetSystem Class Reference

Inheritance diagram for PlanetSystem:



Public Attributes

- List< Planet > **planets**

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

- PlanetSystem.cs

Chapter 5

File Documentation

5.1 CameraController.cs File Reference

File with CameraController definition.

Classes

- class CameraController

5.1.1 Detailed Description

File with CameraController definition.

5.2 Graph.cs File Reference

File with Graph definition.

Classes

- class Graph

  Core class for any low-level graph manipulations.

5.2.1 Detailed Description

File with Graph definition.

5.3 GraphGenerator.cs File Reference

File with GraphGenerator definition.

Classes

- class GraphGenerator

  Monobehaviour. Graph generator and holder.

5.3.1 Detailed Description

File with GraphGenerator definition.

5.4 Planet.cs File Reference

File with Planet definition.

Classes

- class Planet

  Basic class for Planet logic.

5.4.1 Detailed Description

File with Planet definition.

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