RANGE-MAPPER

Effortlessly map numbers and vectors between number-spaces

includes actions for: playMaker visual scripting for unity

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Class List

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

Namespace Documentation

Wuensch Namespace Reference

Classes

1   class **RangeMapper**

static base class to handle the mapping of floats from one range into another, can process float, Vector2 and Vector3

2   class **RangeMapperCustom**

*a custom **RangeMapper** component for floats with curves modification (optional) when remapping values*

3   class **RangeMapperCustomVector2**

*a custom **RangeMapper** component for Vector2 with curves modification (optional) when remapping values*

4   class **RangeMapperCustomVector3**

*a custom **RangeMapper** component for Vector3 with curves modification (optional) when remapping values*

5   class **RangeMapperManager**

searches the scene for existing RangeMapperCustoms and stores in dictionaries.Used to access all RangeMappersCustoms by unique names.

Class Documentation

Wuensch.RangeMapper Class Reference

static base class to handle the mapping of floats from one range into another, can process float, Vector2 and Vector3

Static Public Member Functions

6   static float **Remap** (float input, float fromMin, float fromMax, float toMin, float toMax, bool clampMin=false, bool clampMax=false, bool cycleModulo=false)

remap float value from one range of numbers to another

7   static float **GetDistance** (float x, float n)

returns the distance of two floats, no matter if they are positive or negative

8   static float **GetModulo** (float x, float n)

returns the remainder of an equation of 2 floats (modulo operation)

9   static Vector3 **RemapVector3** (Vector3 input, Vector3 fromMin, Vector3 fromMax, Vector3 toMin, Vector3 toMax, bool clampMin=false, bool clampMax=false, bool cycleModulo=false)

remap Vector3 values from one range to another

10   static Vector2 **RemapVector2** (Vector2 input, Vector2 fromMin, Vector2 fromMax, Vector2 toMin, Vector2 toMax, bool clampMin=false, bool clampMax=false, bool cycleModulo=false)

remap Vector2 values from one range to another

11   static float **RemapCurve** (float input, float fromMin, float fromMax, float toMin, float toMax, bool clampMin=false, bool clampMax=false, bool cycleModulo=false, AnimationCurve remapCurve=null)

Remap Float and apply curves for each axis

12   static Vector3 **RemapVector3Curve** (Vector3 input, Vector3 fromMin, Vector3 fromMax, Vector3 toMin, Vector3 toMax, bool clampMin=false, bool clampMax=false, bool cycleModulo=false, AnimationCurve[] remapCurves=null)

Remap Vector3 and apply curves for each axis

13   static Vector2 **RemapVector2Curve** (Vector2 input, Vector2 fromMin, Vector2 fromMax, Vector2 toMin, Vector2 toMax, bool clampMin=false, bool clampMax=false, bool cycleModulo=false, AnimationCurve[] remapCurves=null)

Remap Vector2 and apply curves for each axis

Detailed Description

static base class to handle the mapping of floats from one range into another, can process float, Vector2 and Vector3

Definition at line 9 of file RangeMapper.cs.

Member Function Documentation

static float Wuensch.RangeMapper.GetDistance (float *x*, float *n*)`[static]`

returns the distance of two floats, no matter if they are positive or negative

Parameters:

x	
n	

Returns:

Definition at line 87 of file RangeMapper.cs.

Referenced by Wuensch.RangeMapper.Remap().

static float Wuensch.RangeMapper.GetModulo (float *x*, float *n*)`[static]`

returns the remainder of an equation of 2 floats (modulo operation)

Parameters:

x	
n	

Returns:

Definition at line 98 of file RangeMapper.cs.

Referenced by Wuensch.RangeMapper.Remap().

static float Wuensch.RangeMapper.Remap (float *input***, float** *fromMin***, float** *fromMax***, float** *toMin***, float** *toMax***, bool** *clampMin* **= `false`, bool** *clampMax* **= `false`, bool** *cycleModulo* **= `false`)[static]**

remap float value from one range of numbers to another

Parameters:

input	
fromMin	
fromMax	
toMin	
toMax	
clampMin	
clampMax	
cycleModulo	

Returns:

Definition at line 23 of file RangeMapper.cs.

Referenced by Wuensch.RangeMapperCustom.RangeMapCustom(), Wuensch.RangeMapper.RemapCurve(), Wuensch.RangeMapper.RemapVector2(), and Wuensch.RangeMapper.RemapVector3().

static float Wuensch.RangeMapper.RemapCurve (float *input***, float** *fromMin***, float** *fromMax***, float** *toMin***, float** *toMax***, bool** *clampMin* **= `false`, bool** *clampMax* **= `false`, bool** *cycleModulo* **= `false`, AnimationCurve** *remapCurve* **= `null`)[static]**

Remap Float and apply curves for each axis

Parameters:

input	
fromMin	
fromMax	
toMin	
toMax	
clampMin	
clampMax	
cycleModulo	
remapCurve	

Returns:

Definition at line 157 of file RangeMapper.cs.

Referenced by Wuensch.RangeMapperCustom.RangeMapCustom().

static Vector2 Wuensch.RangeMapper.RemapVector2 (Vector2 *input***, Vector2** *fromMin***, Vector2** *fromMax***, Vector2** *toMin***, Vector2** *toMax***, bool** *clampMin* **= `false`, bool** *clampMax* **= `false`, bool** *cycleModulo* **= `false`)[static]**

remap Vector2 values from one range to another

Parameters:

input	
fromMin	
fromMax	
toMin	
toMax	
clampMin	
clampMax	
cycleModulo	

Returns:

Definition at line 136 of file RangeMapper.cs.

Referenced by Wuensch.RangeMapperCustomVector2.RangeMapCustom(), and Wuensch.RangeMapper.RemapVector2Curve().

static Vector2 Wuensch.RangeMapper.RemapVector2Curve (Vector2 *input***, Vector2** *fromMin***, Vector2** *fromMax***, Vector2** *toMin***, Vector2** *toMax***, bool** *clampMin* **= `false`, bool** *clampMax* **= `false`, bool** *cycleModulo* **= `false`, AnimationCurve []** *remapCurves* **= `null`) `[static]`**

Remap Vector2 and apply curves for each axis

Parameters:

input	
fromMin	
fromMax	
toMin	
toMax	
clampMin	
clampMax	
cycleModulo	
remapCurves	

Returns:

Definition at line 240 of file RangeMapper.cs.

Referenced by Wuensch.RangeMapperCustomVector2.RangeMapCustom().

static Vector3 Wuensch.RangeMapper.RemapVector3 (Vector3 *input***, Vector3** *fromMin***, Vector3** *fromMax***, Vector3** *toMin***, Vector3** *toMax***, bool** *clampMin* **= `false`, bool** *clampMax* **= `false`, bool** *cycleModulo* **= `false`)`[static]`**

remap Vector3 values from one range to another

Parameters:

input	

fromMin	
fromMax	
toMin	
toMax	
clampMin	
clampMax	
cycleModulo	

Returns:

Definition at line 116 of file RangeMapper.cs.

Referenced by Wuensch.RangeMapperCustomVector3.RangeMapCustom(), and Wuensch.RangeMapper.RemapVector3Curve().

static Vector3 Wuensch.RangeMapper.RemapVector3Curve (Vector3 *input*, Vector3 *fromMin*, Vector3 *fromMax*, Vector3 *toMin*, Vector3 *toMax*, bool *clampMin* = `false`, bool *clampMax* = `false`, bool *cycleModulo* = `false`, AnimationCurve [] *remapCurves* = `null`) [static]

Remap Vector3 and apply curves for each axis

Parameters:

input	
fromMin	
fromMax	
toMin	
toMax	
clampMin	
clampMax	
cycleModulo	
remapCurves	

Returns:

Definition at line 186 of file RangeMapper.cs.

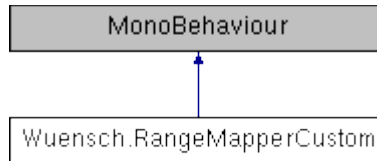Referenced by Wuensch.RangeMapperCustomVector3.RangeMapCustom().

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

14   RangeMapper.cs

Wuensch.RangeMapperCustom Class Reference

a custom **RangeMapper** component for floats with curves modification (optional) when remapping values

Inheritance diagram for Wuensch.RangeMapperCustom:

Public Member Functions

15   float **RangeMapCustom** (float myInput)

*use this custom **RangeMapper***

16   float **RangeMapCustom** (float myInputX, float fromMinX, float fromMaxX, float toMinX, float toMaxX, bool clampMinX=false, bool clampMaxX=false, bool cycleModuloX=false)

overload for RangeMapCustom, set all relevant public variables on the component

Public Attributes

17   string **myName** = "my Name here"
18   float **input**
19   float **fromMin** = 0f
20   float **fromMax** = 1f
21   float **toMin** = 0f
22   float **toMax** = 100f
23   bool **clampMin** = false
24   bool **clampMax** = false
25   bool **cycleModulo** = false
26   bool **useCurve** = false
27   AnimationCurve **remapCurve**
28   float **output**

Detailed Description

a custom **RangeMapper** component for floats with curves modification (optional) when remapping values

Definition at line 10 of file RangeMapperCustom.cs.

Member Function Documentation

float Wuensch.RangeMapperCustom.RangeMapCustom (float *myInput*)

use this custom **RangeMapper**

Parameters:

myInput	

Returns:

Definition at line 54 of file RangeMapperCustom.cs.

Referenced by Wuensch.RangeMapperManager.RangemapCustom().

float Wuensch.RangeMapperCustom.RangeMapCustom (float *myInputX*, float *fromMinX*, float *fromMaxX*, float *toMinX*, float *toMaxX*, bool *clampMinX* = `false`, bool *clampMaxX* = `false`, bool *cycleModuloX* = `false`)

overload for RangeMapCustom, set all relevant public variables on the component

Parameters:

myInput	
fromMin	
fromMax	
toMin	
toMax	
clampMin	
clampMax	
cycleModulo	

Returns:

Definition at line 84 of file RangeMapperCustom.cs.

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

29   RangeMapperCustom.cs

Wuensch.RangeMapperCustomVector2 Class Reference

a custom **RangeMapper** component for Vector2 with curves modification (optional) when remapping values

Inheritance diagram for Wuensch.RangeMapperCustomVector2:
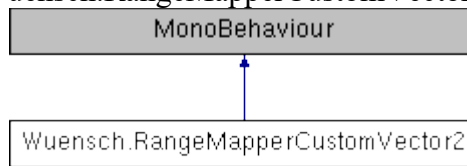
Public Member Functions

30   Vector2 **RangeMapCustom** (Vector2 myInput)

*use this custom **RangeMapper** Vector2*

31   Vector2 **RangeMapCustom** (Vector2 myInputX, Vector2 fromMinX, Vector2 fromMaxX, Vector2 toMinX, Vector2 toMaxX, bool clampMinX=false, bool clampMaxX=false, bool cycleModuloX=false)

overload for RangeMapCustom, set all relevant public variables on the component

Public Attributes

32   string **myName** = "my Name here"

33   Vector2 **input**

34   Vector2 **fromMin** = new Vector2 (0f, 0f)

```
35   Vector2 fromMax = new Vector2 (1f, 1f)
36   Vector2 toMin = new Vector2 (0f, 0f)
37   Vector2 toMax = new Vector2 (100f, 100f)
38   bool clampMin = false
39   bool clampMax = false
40   bool cycleModulo = false
41   bool useCurves = false
42   AnimationCurve remapCurveX
43   AnimationCurve remapCurveY
44   Vector2 output
```

Detailed Description

a custom **RangeMapper** component for Vector2 with curves modification (optional) when remapping values

Definition at line 10 of file RangeMapperCustomVector2.cs.

Member Function Documentation

Vector2 Wuensch.RangeMapperCustomVector2.RangeMapCustom (Vector2 *myInput*)

use this custom **RangeMapper** Vector2

Parameters:

myInput	

Returns:

Definition at line 55 of file RangeMapperCustomVector2.cs.

Referenced by Wuensch.RangeMapperManager.RangemapCustomVector2().

Vector2 Wuensch.RangeMapperCustomVector2.RangeMapCustom (Vector2 *myInputX*, Vector2 *fromMinX*, Vector2 *fromMaxX*, Vector2 *toMinX*, Vector2 *toMaxX*, bool *clampMinX* = `false`, bool *clampMaxX* = `false`, bool *cycleModuloX* = `false`)

overload for RangeMapCustom, set all relevant public variables on the component

Parameters:

myInput	
fromMin	
fromMax	
toMin	
toMax	
clampMin	
clampMax	
cycleModulo	

Returns:

Definition at line 83 of file RangeMapperCustomVector2.cs.
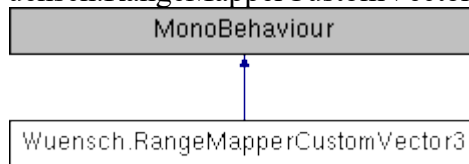

The documentation for this class was generated from the following file:

45 RangeMapperCustomVector2.cs

Wuensch.RangeMapperCustomVector3 Class Reference

a custom **RangeMapper** component for Vector3 with curves modification (optional) when remapping values

Inheritance diagram for Wuensch.RangeMapperCustomVector3:

Public Member Functions

46 Vector3 **RangeMapCustom** (Vector3 myInput)

*use this custom **RangeMapper** Vector3*

47 Vector3 **RangeMapCustom** (Vector3 myInputX, Vector3 fromMinX, Vector3 fromMaxX, Vector3 toMinX, Vector3 toMaxX, bool clampMinX=false, bool clampMaxX=false, bool cycleModuloX=false)

overload for RangeMapCustom, set all relevant public variables on the component

Public Attributes

48 string **myName** = "my Name here"
49 Vector3 **input**
50 Vector3 **fromMin** = new Vector3 (0f, 0f, 0f)
51 Vector3 **fromMax** = new Vector3 (1f, 1f, 1f)
52 Vector3 **toMin** = new Vector3 (0f, 0f, 0f)
53 Vector3 **toMax** = new Vector3 (100f, 100f, 100f)
54 bool **clampMin** = false
55 bool **clampMax** = false
56 bool **cycleModulo** = false
57 bool **useCurves** = false
58 AnimationCurve **remapCurveX**
59 AnimationCurve **remapCurveY**
60 AnimationCurve **remapCurveZ**
61 Vector3 **output**

Detailed Description

a custom **RangeMapper** component for Vector3 with curves modification (optional) when remapping values

Definition at line 10 of file RangeMapperCustomVector3.cs.

Member Function Documentation

Vector3 Wuensch.RangeMapperCustomVector3.RangeMapCustom (Vector3 *myInput*)

use this custom **RangeMapper** Vector3

Parameters:

myInput	

Returns:

Definition at line 57 of file RangeMapperCustomVector3.cs.

Referenced by Wuensch.RangeMapperManager.RangemapCustomVector3().

Vector3 Wuensch.RangeMapperCustomVector3.RangeMapCustom (Vector3 *myInputX*, Vector3 *fromMinX*, Vector3 *fromMaxX*, Vector3 *toMinX*, Vector3 *toMaxX*, bool *clampMinX* = `false`, bool *clampMaxX* = `false`, bool *cycleModuloX* = `false`)

overload for RangeMapCustom, set all relevant public variables on the component

Parameters:

myInput	
fromMin	
fromMax	
toMin	
toMax	
clampMin	
clampMax	
cycleModulo	

Returns:

Definition at line 85 of file RangeMapperCustomVector3.cs.

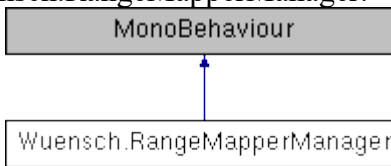**The documentation for this class was generated from the following file:**

62   RangeMapperCustomVector3.cs

Wuensch.RangeMapperManager Class Reference

searches the scene for existing RangeMapperCustoms and stores in dictionaries.Used to access all

RangeMappersCustoms by unique names.

Inheritance diagram for Wuensch.RangeMapperManager:

```
         ┌──────────────────────┐
         │     MonoBehaviour    │
         └──────────────────────┘
                    ▲
                    │
         ┌──────────────────────────┐
         │ Wuensch.RangeMapperManager│
         └──────────────────────────┘
```

Public Member Functions

63   float **RangemapCustom** (float valueToMap, string rangeMapperCustomName)

*//uses float **RangeMapperCustom** component by name*

64   Vector3 **RangemapCustomVector3** (Vector3 valueToMap, string rangeMapperCustomName)

*uses Vector3 **RangeMapperCustom** component by name*

65   Vector2 **RangemapCustomVector2** (Vector2 valueToMap, string rangeMapperCustomName)

*uses Vector2 **RangeMapperCustom** component by name*

Public Attributes

66   string **Remark** = "You only need one **RangeMapperManager** in your scene. Use functions **RangemapCustom** or RangeMapCustomVector2 or RangeMapCustomVector3 of this component to call any custom Rangemapper by name."

67   bool **logRangeMapperManager**

Detailed Description

searches the scene for existing RangeMapperCustoms and stores in dictionaries.Used to access all RangeMappersCustoms by unique names.

Definition at line 10 of file RangeMapperManager.cs.

Member Function Documentation

float Wuensch.RangeMapperManager.RangemapCustom (float *valueToMap*, string *rangeMapperCustomName*)

//uses float **RangeMapperCustom** component by name

Parameters:

valueToMap	
rangeMapperCustomName	

Returns:

Definition at line 100 of file RangeMapperManager.cs.

Vector2 Wuensch.RangeMapperManager.RangemapCustomVector2 (Vector2 *valueToMap*, string *rangeMapperCustomName*)

uses Vector2 **RangeMapperCustom** component by name

Parameters:

valueToMap	
rangeMapperCust omName	

Returns:

Definition at line 157 of file RangeMapperManager.cs.

Vector3 Wuensch.RangeMapperManager.RangemapCustomVector3 (Vector3 *valueToMap*, string *rangeMapperCustomName*)

uses Vector3 **RangeMapperCustom** component by name

Parameters:

valueToMap	
rangeMapperCust omName	

Returns:

Definition at line 128 of file RangeMapperManager.cs.

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

68   RangeMapperManager.cs

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