



- Developed by Dented Pixel

# **APIs**

Type to filter APIs

LeanTween
LeanTweenType
LTBezierPath
LTDescr
LTRect

# Games Developed by Dented Pixel



Monkeyshines - A swinging good time!



Princess Piano – Learn musical notation in this melodious adventure!

# LeanTween Class

Show: 🗹 Inherited 🔲 Protected 🔲 Private 🔲 Deprecated

Defined in: LeanTween.cs:880

LeanTween is an efficient tweening engine for Unity3d

Index of All Methods | Optional Paramaters that can be passed

Optional Parameters are passed at the end of every method

Example.

LeanTween.moveX( gameObject, 1f, 1f).setEase( LeanTweenType.easeInQuad ).setDelay(1f);

You can pass the optional parameters in any order, and chain on as many as you wish. You can also pass parameters at a later time by saving a reference to what is returned.

Example:

LTDescr d = LeanTween.moveX(gameObject, 1f, 1f);

...later set some parameters

d.setOnComplete( onCompleteFunc ).setEase( LeanTweenType.easeInOutBack );

Index Methods

# **Methods**

**LeanTween.alpha** (ltRect:LTRect, to:float, time:float) <u>LTDescr</u> Defined in LeanTween.cs:1772

Fade a GUI Object

# Parameters:

- ltRect:LTRect LTRect LTRect that you wish to fade
- to:float Float the final alpha value (0-1)
- time:float Float
  The time with which to fade the object

## Returns:

LTDescr:

LTDescr an object that distinguishes the tween

### Example:

 $LeanTween. alpha (ItRect, \ 1f, \ 1f) \ . setEase (LeanTweenType.easeInCirc);$ 

**LeanTween.alpha** (gameObject:GameObject,to:float,time:float) <u>LTDescr</u>
Defined in LeanTween.cs:1757

Fade a gameobject's material to a certain alpha value. The material's shader needs to support alpha. Owl labs has some excellent efficient shaders.

#### Parameters:

- gameObject:GameObject GameObject Gameobject that you wish to fade
- to:float Float the final alpha value (0-1)
- time:float Float
  The time with which to fade the object

#### Returns:

I TD - - - --

#### LIDescr:

LTDescr an object that distinguishes the tween

#### Example:

LeanTween.alpha(gameObject, 1f, 1f) .setDelay(1f);

LeanTween.alphaVertex (gameObject:GameObject, to:float, time:float) LTDescr Defined in LeanTween.cs:1788

This works by tweening the vertex colors directly.

Vertex-based coloring is useful because you avoid making a copy of your object's material for each instance that needs a different color.

A shader that supports vertex colors is required for it to work (for example the shaders in Mobile/Particles/)

#### Parameters:

- gameObject:GameObject GameObject Gameobject that you wish to alpha
- to:float Float The alpha value you wish to tween to
- time:float Float The time with which to delay before calling the function

#### Returns:

LTDescr:

LTDescr an object that distinguishes the tween

```
LeanTween.cancel (gameObject:GameObject)
```

Defined in LeanTween.cs:1541

Cancel all tweens that are currently targeting the gameObject

## Parameters:

gameObject:GameObject GameObject gameObject whose tweens you want to cancel

```
LeanTween.cancel (id:int)
```

Defined in LeanTween.cs:1565

Cancel all tweens that are currently targeting the gameObject

## Parameters:

id:int Int id of the tween you want to cancel

# Example:

 $int\ tweenIDMove = LeanTween.move(\ gameObject,\ new\ Vector3(0f,1f,2f),\ 1f).id;$ LeanTween.cancel( tweenIDMove );

```
LeanTween.init (maxSimultaneousTweens:int)
```

This line is optional. Here you can specify the maximum number of tweens you will use (the default is 400). This must be called before any use of LeanTween is made for it to be effective.

#### Parameters:

maxSimultaneousTweens:int Integer The maximum number of tweens you will use, make sure you don't go over this limit, otherwise the code will throw an error

#### Example:

LeanTween.init( 800 );

# LeanTween.isTweening (ltRect:LTRect) Defined in LeanTween.cs:1673

Test whether or not a tween is active on a LTRect

#### Parameters:

ltRect:LTRect LTRect LTRect that you want to test if it is tweening

# LeanTween.isTweening (gameObject:GameObject)

Defined in LeanTween.cs:1658

Test whether or not a tween is active on a GameObject

#### Parameters:

gameObject:GameObject
 GameObject that you want to test if it is tweening

**LeanTween.move** (gameObject:GameObject,[],time:float) <u>LTDescr</u>

Defined in LeanTween.cs:1923

Move a GameObject along a set of bezier curves

## Parameters:

- gameObject:GameObject GameObject Gameobject that you wish to move
- [] Vector3 optional A set of points that define the curve(s) ex: Point1, Handle1, Handle2, Point2,...
- time:float Float The time to complete the tween in

#### Returns:

LTDescr:

LTDescr an object that distinguishes the tween

## Example:

Javascript:

C#:

LeanTween.move(gameObject, new

 $Vector3\{Vector3(0f,0f,0f),Vector3(1f,0f,0f),Vector3(1f,0f,0f),Vector3(1f,0f,0f,1f)\}. setEase(LeanTween.easeOutQuad). setOrientTolough (SetEase(LeanTween.easeOutQuad)) and the setOrientTolough (SetEase(LeanTween.easeOutQuad)) are setOrientTolough (SetEase(LeanTween.easeOutQuad)) and the setOrientTolough (SetEase(LeanTween.easeOutQuad)) are setOrientTolough (SetEase(LeanTween.easeOutQuad)) and the setOrientTolough (SetEase(LeanTween.easeOutQuad)) are setOrientTolough (SetEase(LeanTween.easeOutQuad)) and the setOrientTolough (SetEaseOutQuad)) are setOrientTolough (SetEaseOutQuad)) and setOrientTolough (SetEaseOutQuad)) are setOrientTolough (SetEaseOutQuad)) and setOrientTolough (SetEaseOutQuad)) are setOrientTolough (Set$ 

 $\textbf{LeanTween.move} \quad \textbf{(GameObject, vec:Vector3, time:float)} \quad \underline{\textbf{LTDescr}} \\ \textbf{Defined in LeanTween.cs:1819}$ 

Move a GameObject to a certain location

## Parameters:

- GameObject GameObject gameObject Gameobject that you wish to move
- vec:Vector3 Vector3 to The final positin with which to move to
- time:float Float time The time to complete the tween in

#### Returns:

LTDescr:

LTDescr an object that distinguishes the tween

## Example:

 $Lean Tween. move (game Object, \ new \ Vector 3 (0f, -3f, 5f), \ 2.0f) \ . set Ease (\ Lean Tween. ease Out Quad\ );$ 

```
LeanTween.move (gameObject:GameObject,[],time:float) <u>LTDescr</u>
Defined in LeanTween.cs:1833
```

Move a GameObject along a set of bezier curves

#### Parameters:

- gameObject:GameObject GameObject Gameobject that you wish to move
- [] Vector3 optional
   A set of points that define the curve(s) ex: Point1, Handle1, Handle2, Point2,...
- time:float Float The time to complete the tween in

#### Returns:

LTDescr:

LTDescr an object that distinguishes the tween

#### Example:

Javascript:

C#

```
LeanTween.move (GUI) (ltRect:LTRect, vec:Vector2, time:float) LTDescr
Defined in LeanTween.cs:1857
```

Move a GUI Element to a certain location

#### Parameters:

- ltRect:LTRect LTRect ltRect LTRect object that you wish to move
- vec:Vector2 Vector2 to The final position with which to move to (pixel coordinates)
- time:float Float time The time to complete the tween in

#### Returns:

LTDescr:

LTDescr an object that distinguishes the tween

```
LeanTween.moveLocal (GameObject, Vector3, float, Hashtable) LTDescr
Defined in LeanTween.cs:1909
```

Move a GameObject to a certain location relative to the parent transform.

# Parameters:

- GameObject GameObject
   gameObject Gameobject that you wish to rotate
- Vector3 Vector3 to The final positin with which to move to
- float Float time The time to complete the tween in
- Hashtable Hashtable optional Hashtable where you can pass optional items.

# Returns:

LTDescr:

LTDescr an object that distinguishes the tween

**LeanTween.moveX** (gameObject:GameObject,to:float,time:float) <u>LTDescr</u> Defined in LeanTween.cs:1870

Move a GameObject along the x-axis

#### Parameters:

- gameObject:GameObject GameObject gameObject Gameobject that you wish to move
- to:float Float to The final position with which to move to
- time:float Float time The time to complete the move in

#### Returns:

LTDescr:

LTDescr an object that distinguishes the tween

 $\begin{tabular}{ll} \textbf{LeanTween.moveY} & (GameObject, float, float) & \underline{LTDescr} \\ Defined in LeanTween.cs: 1883 & \\ \end{tabular}$ 

Move a GameObject along the y-axis

#### Parameters:

- GameObject GameObject gameObject Gameobject that you wish to move
- float Float to The final position with which to move to
- float Float time The time to complete the move in

# Returns:

LTDescr:

LTDescr an object that distinguishes the tween

**LeanTween.moveZ** (GameObject, float, float) <u>LTDescr</u>
Defined in LeanTween.cs:1896

Move a GameObject along the z-axis

#### Parameters:

- GameObject GameObject gameObject Gameobject that you wish to move
- float Float to The final position with which to move to
- float Float time The time to complete the move in

# Returns:

LTDescr:

LTDescr an object that distinguishes the tween

LeanTween.pause (gameObject:GameObject)
Defined in LeanTween.cs:1609

Pause all tweens for a GameObject

# Parameters:

gameObject:GameObject GameObject
 GameObject whose tweens you want to pause

LeanTween.resume (gameObject:GameObject)

Defined in LeanTween.cs:1644

Resume all the tweens on a GameObject

#### Parameters:

gameObject:GameObject GameObject
 GameObject whose tweens you want to resume

LeanTween.resume (id:int)

Defined in LeanTween.cs:1630

Resume a specific tween

## Parameters:

• id:int Int

Id of the tween you want to resume ex: int id = LeanTween.MoveX(gameObject, 5, 1.0).id;

**LeanTween.rotate** (ltRect:LTRect, to:float, time:float, optional:Array) <u>LTDescr</u>
Defined in LeanTween.cs:1974

Rotate a GUI element (using an LTRect object), to a value that is in degrees

## Parameters:

- ltRect:LTRect LTRect LTRect that you wish to rotate
- to:float Float
   The final rotation with which to rotate to
- time:float Float
  The time to complete the tween in
- optional:Array Array
  Object Array where you can pass optional items.

# Returns:

LTDescr:

LTDescr an object that distinguishes the tween

# Example:

$$\label{eq:continuity} \begin{split} & \text{if}(\text{GUI.Button}(\text{buttonRect.rect, "Rotate"})) \\ & \text{LeanTween.rotate( buttonRect4, 150.0f, 1.0f).setEase(LeanTween.easeOutElastic);} \\ & \text{GUI.matrix} = & \text{Matrix} \\ & \text{4x4.identity;} \end{split}$$

**LeanTween.rotate** (GameObject, Vector3, float) LTDescr Defined in LeanTween.cs:1959

Rotate a GameObject, to values are in passed in degrees

# Parameters:

- GameObject GameObject that you wish to rotate
- Vector3 Vector3 to The final rotation with which to rotate to
- float Float time The time to complete the tween in

# Returns:

LTDescr:

LTDescr an object that distinguishes the tween

## Example:

 $Lean Tween. rotate (cube, new \ Vector 3 (180 f, 30 f, 0 f), \ 1.5 f);$ 

Rotate a GameObject around a certain Axis (the best method to use when you want to rotate beyond 180 degrees)

#### Parameters:

- gameObject:GameObject GameObject Gameobject that you wish to rotate
- vec:Vector3 Vector3 axis in which to rotate around ex: Vector3.up
- degrees:float Float the degrees in which to rotate
- time:float Float time The time to complete the rotation in

#### Returns:

LTDescr:

LTDescr an object that distinguishes the tween

Rotate a GameObject in the objects local space (on the transforms localEulerAngles object)

#### Parameters:

- gameObject:GameObject GameObject Gameobject that you wish to rotate
- to:Vector3 Vector3
   The final rotation with which to rotate to
- time:float Float The time to complete the rotation in

#### Returns:

LTDescr:

LTDescr an object that distinguishes the tween

**LeanTween.rotateX** (GameObject, to:float, time:float) <u>LTDescr</u> Defined in LeanTween.cs:2005

Rotate a GameObject only on the X axis

## Parameters:

- GameObject GameObjectGameobject that you wish to rotate
- to:float Float The final x-axis rotation with which to rotate
- time:float Float
  The time to complete the rotation in

# Returns:

LTDescr:

LTDescr an object that distinguishes the tween

**LeanTween.rotateY** (GameObject, to:float, time:float) LTDescr Defined in LeanTween.cs:2018

Rotate a GameObject only on the Y axis

# Parameters:

GameObject GameObjectGameobject that you wish to rotate

- 40.41.04 ----

The final y-axis rotation with which to rotate

time:float Float

The time to complete the rotation in

#### Returns:

LTDescr:

LTDescr an object that distinguishes the tween

**LeanTween.rotateZ** (GameObject, to:float, time:float) <u>LTDescr</u>
Defined in LeanTween.cs:2031

Rotate a GameObject only on the Z axis

#### Parameters:

- GameObject GameObject
   Gameobject that you wish to rotate
- to:float FloatThe final z-axis rotation with which to rotate
- time:float Float
  The time to complete the rotation in

#### Returns:

LTDescr:

LTDescr an object that distinguishes the tween

**LeanTween.scale** (gameObject:GameObject,vec:Vector3,time:float) LTDescr Defined in LeanTween.cs:2058

Scale a GameObject to a certain size

#### Parameters:

- gameObject:GameObject GameObject gameObject Gameobject that you wish to scale
- vec:Vector3 Vector3 to The size with which to tween to
- time:float Float time The time to complete the tween in

# Returns:

LTDescr:

LTDescr an object that distinguishes the tween

**LeanTween.scale (GUI)** (LTRect, Vector2, float) LTDescr Defined in LeanTween.cs:2071

Scale a GUI Element to a certain width and height

## Parameters:

■ LTRect LTRect

ItRect LTRect object that you wish to move

Vector2 Vector2 to The final width and height to scale to (pixel based)

• float Float time The time to complete the tween in

## Returns:

LTDescr:

LTDescr an object that distinguishes the tween

# Example:

Example Javascript:

```
var bRect:LTRect = new LTRect( 0, 0, 100, 50 );
LeanTween.scale( bRect, Vector2(bRect.rect.width, bRect.rect.height) * 1.3, 0.25
).setEase(LeanTweenType.easeOutBounce);
function OnGUI(){
   if(GUI.Button(bRect.rect, "Scale")){ }
}

Example C#:
LTRect bRect = new LTRect( 0f, 0f, 100f, 50f );
LeanTween.scale( bRect, new Vector2(150f,75f), 0.25f ).setEase(LeanTweenType.easeOutBounce);
void OnGUI(){
   if(GUI.Button(bRect.rect, "Scale")){ }
}
```

```
\begin{tabular}{ll} \textbf{LeanTween.scaleX} & (gameObject:GameObject, scaleTo:float, time:float) & \underline{LTDescr} \\ Defined in LeanTween.cs: 2098 & \end{tabular}
```

Scale a GameObject to a certain size along the x-axis only

#### Parameters:

- gameObject:GameObject GameObject Gameobject that you wish to scale
- scaleTo:float Float the size with which to scale to
- time:float Float the time to complete the tween in

#### Returns:

LTDescr:

LTDescr an object that distinguishes the tween

Scale a GameObject to a certain size along the y-axis only

### Parameters:

- gameObject:GameObject GameObject Gameobject that you wish to scale
- scaleTo:float Float the size with which to scale to
- time:float Float the time to complete the tween in

# Returns:

LTDescr:

LTDescr an object that distinguishes the tween

```
LeanTween.scaleZ (gameObject:GameObject, scaleTo:float, time:float) <u>LTDescr</u> Defined in LeanTween.cs:2124
```

Scale a GameObject to a certain size along the z-axis only

# Parameters:

- gameObject:GameObject
   GameObject that you wish to scale
- scaleTo:float Float the size with which to scale to
- time:float Float the time to complete the tween in

#### Returns:

LTDescr:

LTDescr an object that distinguishes the tween

**LeanTween.value (float)** (GameObject, callOnUpdate:Action<float>, float, float, float) LTDescr Defined in LeanTween.cs:2137

Tween any particular value, it does not need to be tied to any particular type or GameObject

#### Parameters:

■ GameObject GameObject

gameObject GameObject with which to tie the tweening with. This is only used when you need to cancel this tween, it does not actually perform any operations on this gameObject

callOnUpdate:Action<float> Action

The function that is called on every Update frame, this function needs to accept a float value ex: function  $\frac{1}{2}$  updateValue(float val) {

float Float

from The original value to start the tween from

float Float

to The value to end the tween on

• float Float time The time to complete the tween in

#### Returns:

LTDescr:

LTDescr an object that distinguishes the tween

LeanTween.value (float,object) (gameObject:GameObject, callOnUpdate:Action<float,object>,
from:Vector3, to:Vector3, time:float) LTDescr
Defined in LeanTween.cs:2167

Tween any particular value (float)

## Parameters:

gameObject:GameObject GameObject
 Gameobject that you wish to attach the tween to

callOnUpdate:Action<float,object> Action

The function that is called on every Update frame, this function needs to accept a float value ex: function updateValue( Vector3 val, object obj ){ }

from:Vector3 Float

The original value to start the tween from

■ to:Vector3 Vector3

The final Vector3 with which to tween to

time:float Float

The time to complete the tween in

# Returns:

LTDescr:

LTDescr an object that distinguishes the tween

LeanTween.value (Vector3) (gameObject:GameObject, callOnUpdate:Action<Vector3>, from:Vector3,
to:Vector3, time:float) LTDescr
Defined in LeanTween.cs:2152

Tween any particular value (Vector3), this could be used to tween an arbitrary value like a material color

# Parameters:

gameObject:GameObject
 GameObject that you wish to attach the tween to

callOnUpdate:Action<Vector3> Action

The function that is called on every Update frame, this function needs to accept a float value ex: function  $\frac{1}{2}$  updateValue( Vector3 val ){}

■ from:Vector3 Float

The original value to start the tween from

- to:Vector3 Vector3
  The final Vector3 with which to tween to
- time:float Float
  The time to complete the tween in

# Returns:

LTDescr:

LTDescr an object that distinguishes the tween  $% \left\{ \mathbf{r}^{\prime }\right\} =\left\{ \mathbf{r}^{\prime$