# First Chest Documentation

## Welcome to First Chest documentation.

This manual contains a quick-start walkthrough, Component details and script reference.

## Introduction

First Chest is a set of 3D models, Particles, Textures, Scripts which helps you quickly add and setup gifts, presents and treasure chests system for your project. It is easy to use and modify. A beginner can easily understand and use it.

#### Features:

- 68 different style of Chests.
- 42 Shuriken particles including curse, gas, fire, firework, smoke, magic, glow, ray, sparkles, etc.
- 36 sound effects including open, close, lock, open fail, gas, ghost, electric zap, angelic, success, etc.
- 17 PSD templates with color palettes and layers. Modify them as you wish.
- 9 props such as key, heart, sword, shield, gold coins.
- 9 scripts written in c# (full source code and documentation).
- 1 demo scene.
- Scripts and components are compatible with custom 3D Chest models.
- Smooth animation with tweeners. iTween, LeanTween, HOTween are supported.
- Use Preprocessor Directives to switch between tweeners; Let you work with your favorite one or you can easily expand/edit scripts to match your other tweener.
- Supports all player platforms.
- Works on Unity and Unity Pro.

More informations, try First Chest webpage.

http://www.ge-team.com/firstchest/

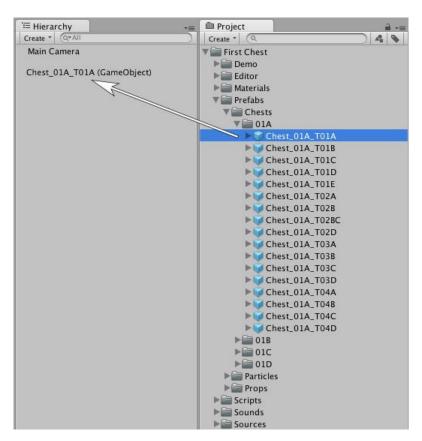
# **Table of Contents**

Introduction	
Table of Contents	3
1. Quick-start walkthrough	4
2. Tweeners	8
3. Components	10
3.1 First Chest Main	11
3.2 First Chest Lid	11
3.3 First Chest Prop	12
3.4 First Chest Prop Particle	
3.5 First Chest Chest Particle	14
3.6 First Chest Sound	
3.7 Audio Source	
4. Script Reference	18
4.1 FCMain	
4.2 FCLid	19
4.3 FCProp	21
4.4 FCParticle	23
4.5 FCPopParticle	24
4.6 FCChestParticle	24
4.7 FCSound	25
4.8 FCGameObjectUtil	26
4.9 FCEaseType	27

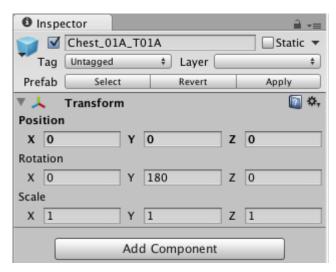
## 1. Quick-Start walkthrough

Follow these steps to figure out, or check out our video tutorial (<a href="http://youtu.be/bmtCBh5NrjQ">http://youtu.be/bmtCBh5NrjQ</a>).

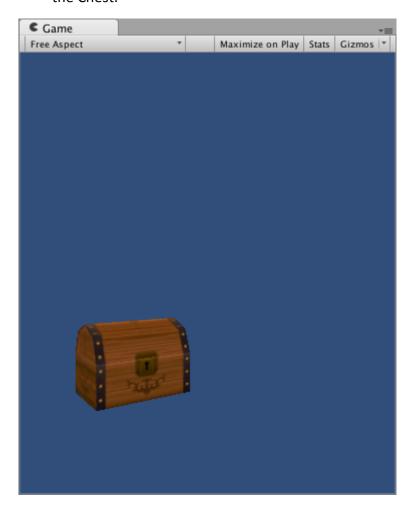
- 1. Import First Chest package.
- 2. Go to **Top menu->File->New Scene** to create new scene.
- 3. Drag a Chest prefab from "First Chest/Prefabs/Chests/" folder into Hierarchy tab or Scene tab.

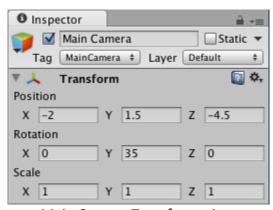


4. In Hierarchy tab, double click on the Chest. Change transform value; position=(0, 0, 0) and Rotation=(0,180,0).



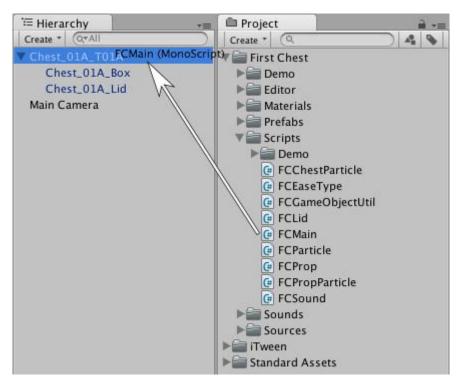
5. In Scene tab, Select Main Camera and move it around to make sure you see front side of the Chest.





Main Camera Transformation.

6. Select the Chest in Hierarchy tab, drag "FCMain" script from "First Chest/Scripts" folder and drop it into the Chest.



Inspector Static ▼ ✓ Chest\_01A\_T01A Tag Untagged Layer Prefab Select Revert Apply ▼ 🙏 Transform Position x 0 Y 0 Z 0 Rotation x 0 Z 0 Y 180 Scale Z 1 X 1 Y 1 ₽, ▼ (# ✓ FCMain (Script) Create Collider  $\checkmark$ Elastic  $\checkmark$ **Bounce Force** 0.3 1 **Bounce Duration** ► 🕝 🗹 FCLid (Script) ► 👍 🗹 FCProp (Script) ► 🕝 🗹 FCProp Particle (Script) ► 🕝 🗹 FCChest Particle (Script) ₽,

7. FCMain and other First Chest components are added to the Chest automatically.

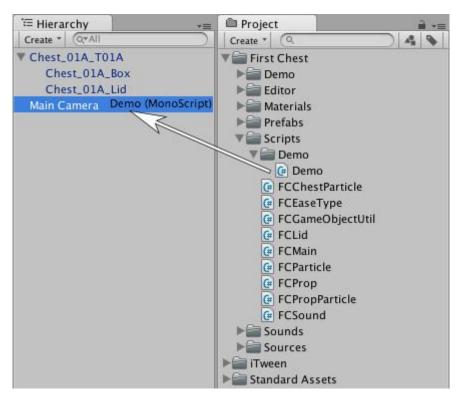
8. Select Main Camera in Hierarchy tab.

► (# FCSound (Script)

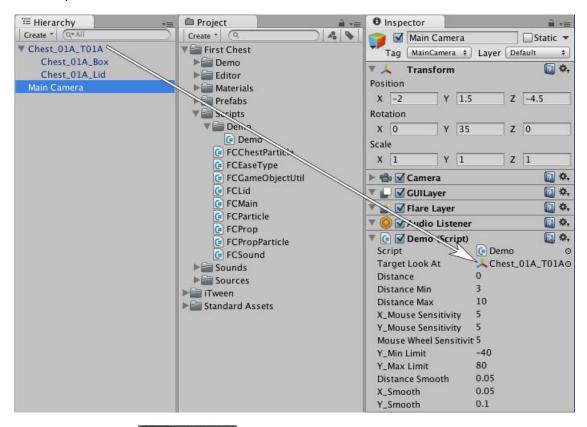
► Audio Source

9. Drag "Demo" script from "First Chest/Scripts/Demo" folder and drop it into the Main Camera.

Add Component



10. Main Camera is selected; drag the Chest in Hierarchy tab to "Target Look At" property in Demo component.



- 11. Press Play.
- 12. In Game tab, drag mouse around to orbit the camera. Left button to toggle open/close the Chest, Right button to toggle lock/unlock and use mouse-scroll to zoom in/out.
  - 13. Stop and try adjusting the properties of First Chest components in Inspector tab.

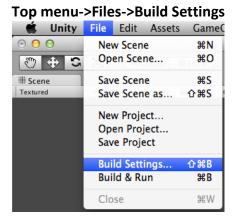
## 2. Tweeners

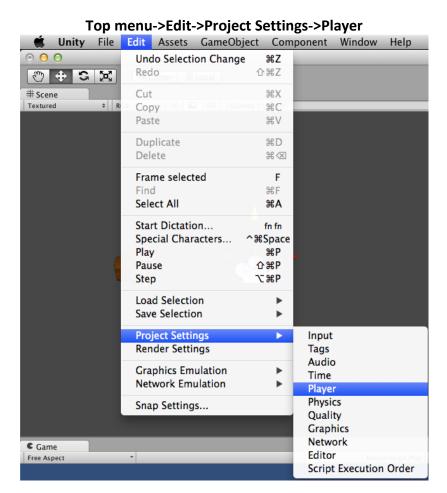
Tweener is the interpolation system that takes one value and animates it to another over a given amount of time. Three Tweeners are supported by First Chest;

- iTween: https://www.assetstore.unity3d.com/#/content/84
- HOTween <a href="https://www.assetstore.unity3d.com/#/content/3311">https://www.assetstore.unity3d.com/#/content/3311</a>
- LeanTween. https://www.assetstore.unity3d.com/#/content/3595

The default tweener is iTween, you can change the default to another by using preprocessor directives in **Scripting Define Symbols** in Unity **Player Configuration**.

1. Go to **Top menu->Files->Build Settings** press **Player Settings** button or Go to **Top menu->Edit->Project Settings->Player**.

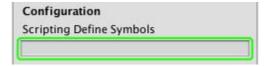




2. In Inspector tab expand Other Settings.

Other Settings

3. Look for Configuration and Scripting Define Symbols TextField.



- 4. To use Hotween type **USE\_HOTWEEN**.
- 5. To use LeanTween type **USE\_LEANTWEEN**.
- 6. To use iTween, leave it blank.
- 7. Refresh your Script Editor tool such as MonoDevelop, Microsoft Visual Studio if it opens your project.







Learn more about tweeners.

Tweeners	URLs
HOTween	Asset Store: <a href="https://www.assetstore.unity3d.com/#/content/3311">https://www.assetstore.unity3d.com/#/content/3311</a>
	Documentation: <a href="http://www.holoville.com/hotween/documentation.html">http://www.holoville.com/hotween/documentation.html</a>
LeanTween	Asset Store: https://www.assetstore.unity3d.com/#/content/3595
	Documentation: <a href="http://dentedpixel.com/LeanTweenDocumentation/classes/LeanTween.html">http://dentedpixel.com/LeanTweenDocumentation/classes/LeanTween.html</a>
iTween	Asset Store: https://www.assetstore.unity3d.com/#/content/84
	Documentation: <a href="http://itween.pixelplacement.com/documentation.php">http://itween.pixelplacement.com/documentation.php</a>

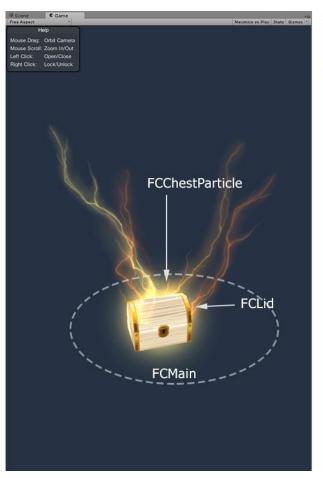
A good reference for what you can expect from each ease type.

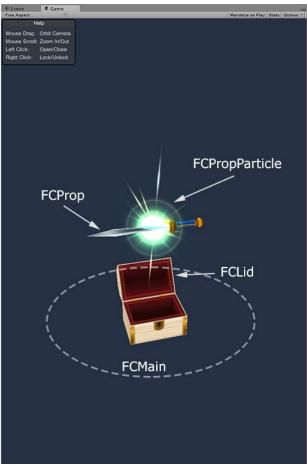
http://www.robertpenner.com/easing/easing\_demo.html

## 3. Components

First Chest components control the behaviors of the Chest gameObject in the scene. There are many components work together for a Chest; FCLid controls the Lid, FCChestParticle controls the Particle of the Chest, FCProp controls the gameObject in the Chest, FCPropParticle controls the Particle of the gameObject in the Chest, FCSound controls Unity's Audio Source component. FCMain is main component to control others. You can adjust their variables or disable any component if you don't want it such as disable FCSound if you don't want the Chest to play sound.

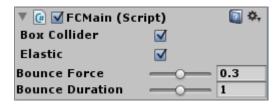
This picture describe how each component handles the Chest.





## 3.1 FCMain (First Chest Main Component)

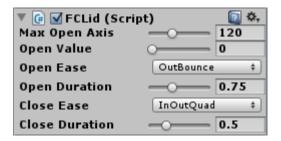
FCMain is the main component of First Chest. Drop FCMain script on any gameObject to make it a First Chest gameObject. Others components will be added after FCMain, automatically.



Properties	Details
<b>Box Collider</b>	If enabled, the Chest will create a box
	collider. This makes Unity can cast a
	ray from camera against the Chest.
	This must be checked if you want the
	Chest can respond user input from
	Mouse and Touch screen.
Elastic	Enable Chest bounce animation when
	it turns to open/close or lock/unlock.
<b>Bounce Force</b>	Amount of the bouncing force.
<b>Bounce Duration</b>	The time in seconds the bounce
	animation will take to complete.

## 3.2 FCLid (First Chest Lid Component)

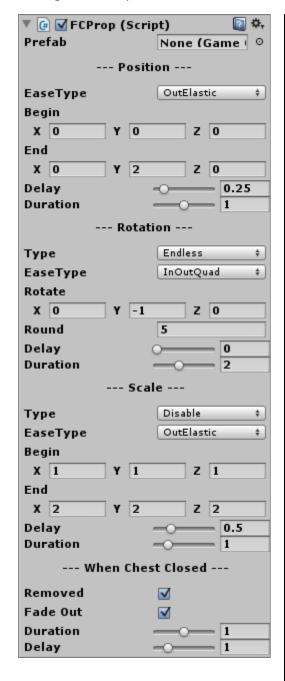
FCLid is the component that handles the Lid of the Chest. This component is added automatically when you drop FCMain component to a gameObject. You can disable it if you don't want to Open/Close and Lock/Unlock the Chest.



Properties	Details
Max Open Angle	Amount of maximum Axis in Euler
	Degrees when the Lid open.
Value	Amount between 0 and 1. If this value
	is 1 the Lid is opening in maximum
	angle. 0 means the Lid is closed.
Open Ease	The shape of the easing curve applied
	to the opening animation.
Open Duration	The time in seconds for the open
	animation will take to complete.
Close Ease	The shape of the easing curve applied
	to the closing animation.
Close Duration	The time in seconds the close
	animation will take to complete.

## 3.3 FCProp (First Chest Prop Component)

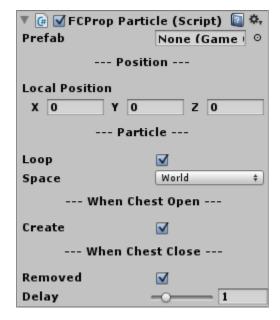
FCProp controls gameObject inside the Chest. This component is added automatically when you drop FCMain component to a gameObject. You can disable it if you want the Chest is empty and shows nothing when it opened.



	Properties	Details
Prefab	1 Toperties	Reference to the prefab of the Prop to
. i Ciub		show when the Chest is opened.
		show when the chest is opened.
Positio	n	
-	EaseType	The shape of the easing curve applied
	2000.700	to the moving animation.
_	Begin	Local position when initiated.
_	End	Local position the Prop will move to.
	Delay	The time in seconds the animation will
_	Delay	wait before begin moving.
	Duration	The time in seconds the move
-	Duration	
		animation will take to complete.
Rotatio	n	
-	Type	Type of the rotation; Disable, Endless,
	. , , , ,	Limited.
_	EaseType	The shape of the easing curve applied
	2000.700	to the rotation animation.
_	Rotation	Direction of the rotation.
_	Round	Max round when Type is set to Limited.
_	Delay	The time in seconds the animation will
	Delay	wait before begin rotation.
	Duration/Round	The time in seconds the rotation
_	Duration/Nound	animation will take to complete a
		round.
		Tourid.
Scale		
-	Туре	Type of the scaling; Disable, Enable.
_	EaseType	The shape of the easing curve applied
	2000.700	to the scaling animation.
_	Begin	Local scale to initiate the Prop.
_	End	Local scale the Prop will scale to.
_	Delay	The time in seconds the animation will
	Delay	wait before begin scaling.
_	Duration	The time in seconds the scaling
	Duration	animation will take to complete.
		animation will take to complete.
When (	Chest Closed	
_	Removed	Remove Prop when user closes the Lid.
_	Fade out	Enable Prop fade out when user closes
	· <del></del>	the Lid. Fade out needs shader which
		supports _Color with alpha channel.
_	Duration	The time in seconds the fading will take
	2 di dilon	to complete.
_	Delay	The time in seconds to wait before
-	Delay	remove the Prop.
		Temove the Frop.

## 3.4 FCPropParticle (First Chest Prop Particle Component)

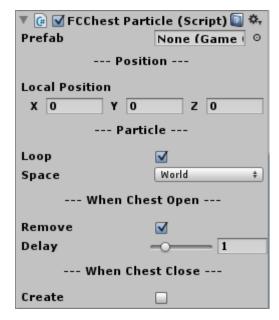
FCPropParticle controls PaticleSystem of the Prop. This component is added automatically when you drop FCMain component to a gameObject. Disable this component when you don't want Particle of the Prop.



Properties	Details
Prefab	Reference to the prefab of the Particle.
Position	
- Local Position	Local position when initiated.
Particle	
- Loop	Enable this to make the Particle loop when it reaches the end.
- Space	Type of coordinate space in which to operate.
When Chest Open	
- Create	Initiate Particle when user opens the Chest.
When Chest Close	
- Remove	Remove Particle when user closes the Chest.
- Delay	The time in seconds to wait before remove the Particle.

## 3.5 First Chest Chest Particle (FCChestParticle)

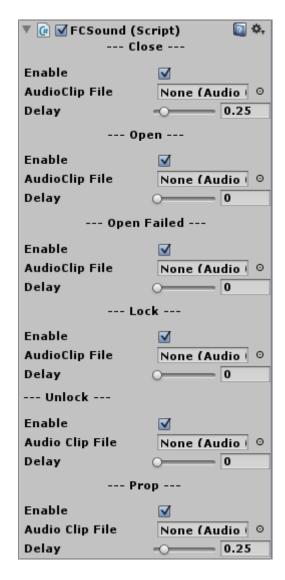
FCChestParticle controls PaticleSystem of the Chest. This component is added automatically when you drop FCMain component to a gameObject. Disable this component when you don't want Particle of the Chest.



Properties	Details	
Prefab	Reference to the prefab of the Particle.	
Position		
- Local Position	Local position when initiated.	
Particle		
- Loop	Enable this to make the Particle loop when it reaches the end.	
- Space	Type of coordinate space in which to operate.	
When Chest Open		
- Remove	Remove Particle when user opens the Chest.	
- Delay	The time in seconds to wait before remove the Particle.	
When Chest Close		
- Create	Initiate Particle when user closes the Chest.	

## 3.6 FCSound (First Chest Sound Component)

FCSound controls Audio Source. This component is added automatically when you drop FCMain component to a gameObject. You can disable it if you don't want to play any sound.



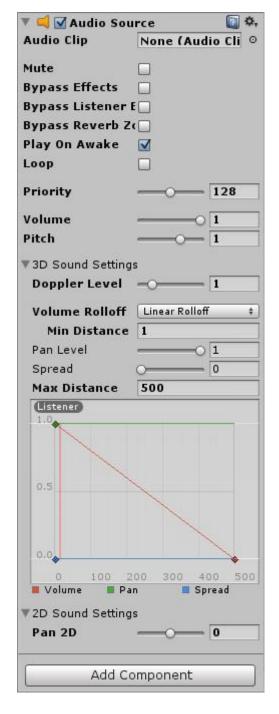
_		
	roperties	Details
Close -	Enable	Enable this to make Close sound play.
-	AudioClip	Reference to the Audio Clip.
-	Delay	The time in seconds to delay before play sound.
Open		
-	Enable	Enable this to make Open sound play.
-	AudioClip	Reference to the Audio Clip.
-	Delay	The time in seconds to delay before play sound.
Open	Failed	
-	Enable	Enable this to make Open Failed sound play.
-	AudioClip	Reference to the Audio Clip.
-	Delay	The time in seconds to delay before play sound.
Lock		
-	Enable	Enable this to make Lock sound play.
-	AudioClip	Reference to the Audio Clip.
-	Delay	The time in seconds to delay before play sound.
Unloc	k	
-	Enable	Enable this to make Unlock sound play.
-	AudioClip	Reference to the Audio Clip.
-	Delay	The time in seconds to delay before play sound.
Prop		
-	Enable	Enable this to make Prop sound play.
-	AudioClip	Reference to the Audio Clip.
-	Delay	The time in seconds to delay before
		play sound.

#### 3.7 Audio Source

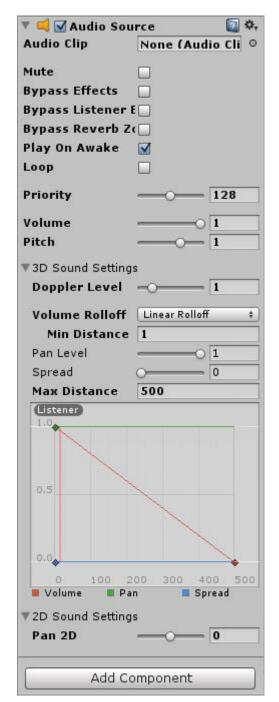
First Chest uses Unity Audio Source to play sounds. This component is added automatically when you drop FCMain component to a gameObject.

(Unity Audio Source: http://docs.unity3d.com/Documentation/Components/class-AudioSource.html)

The Audio Source plays back an Audio Clip in the scene. If the Audio Clip is a 3D clip, the source is played back at a given position and will attenuate over distance. The audio can be spread out between speakers (stereo to 7.1) (Spread) and morphed between 3D and 2D (PanLevel). This can be controlled over distance with falloff curves. Also, if the listener is within one or multiple Reverb Zones, reverberations is applied to the source. (PRO only) Individual filters can be applied to each audio source for an even richer audio experience. See Audio Effects for more details.



Properties	Details
Audio Clip	Reference to the sound clip file that
	will be played.
Mute	If enabled the sound will be playing
	but muted.
Bypass Effects	This Is to quickly "by-pass" filter effects
	applied to the audio source. An easy
	way to turn all effects on/off.
Play On Awake	If enabled, the sound will start playing
	the moment the scene launches. If
	disabled, you need to start it using
	the <b>Play()</b> command from scripting.
Loop	Enable this to make the <b>Audio</b>
	Clip loop when it reaches the end.
Priority	Determines the priority of this audio
	source among all the ones that coexist
	in the scene. (Priority: 0 = most
	important. 256 = least important.
	Default = 128.). Use 0 for music tracks
	to avoid it getting occasionally
	swapped out.
Volume	How loud the sound is at a distance of
	one world unit (one meter) from
	the <b>Audio Listener</b> .
Pitch	Amount of change in pitch due to
	slowdown/speed up of the Audio Clip.
	Value 1 is normal playback speed.
3D Sound Settings	Settings that are applied to the audio
	source if the Audio Clip is a 3D Sound.
Pan Level	Sets how much the 3d engine has an
	effect on the audio source.
Spread	Sets the spread angle to 3d stereo or
	multichannel sound in speaker space.
Doppler Level	Determines how much doppler effect
	will be applied to this audio source (if
	is set to 0, then no effect is applied).



Min Distance	Within the MinDistance, the sound will
	stay at loudest possible. Outside
	MinDistance it will begin to attenuate.
	Increase the MinDistance of a sound to
	make it 'louder' in a 3d world, and
	decrease it to make it 'quieter' in a 3d
	world.
Max Distance	The distance where the sound stops
	attenuating at. Beyond this point it will
	stay at the volume it would be at
	MaxDistance units from the listener
	and will not attenuate any more.
Rolloff Mode	How fast the sound fades. The higher
	the value, the closer the Listener has to
	be before hearing the sound.(This is
	determined by a Graph).
Logarithmic	The sound is loud when you are close
Rolloff	to the audio source, but when you get
	away from the object it decreases
	significantly fast.
Linear Rolloff	The further away from the audio
	source you go, the less you can hear it.
Custom Rolloff	The sound from the audio source
	behaves accordingly to how you set
	the graph of roll offs.
2D Sound Settings	Settings that are applied to the audio
	source if the Audio clip is a 2D Sound.
Pan 2D	Sets how much the engine has an
	effect on the audio source.

# 4. Script Reference

This section of the documentation contains details of the scripting API that First Chest provides. All scripts are written in c#.

#### **4.1 FCMain Class Reference**

#### Description

Script interface for main component of First Chest gameObject. Call FCMain public functions to control the Chest.

#### **Public Variables**

public bool	If enabled, the Chest will create a box collider. This makes Unity can cast a ray from camera against the Chest. It must be true if you want the Chest can respond user input
	from Mouse and Touch screen.
public bool	m_Elastic = true
	If true, Chest will play bounce animation when it turns to open, close, lock and unlock.
public float	m_BounceForce = 0.3f
	Amount of the bouncing force.
public float	m_BounceDuration = 1.0f
	The time in seconds the bounce animation will take to complete.

#### **Public Functions**

public void	ToggleOpen()
	Toggle Open/Close the Lid. Open failed if the Lid is locked.
public void	ToggleLock()
	Toggle Lock/Unlock the Lid.
public void	Open()
	Open the Chest. Open is failed if the Lid is locked.
public void	Close()
	Close the Chest.
public bool	IsLocked()
	Returns true, if Lid is locked.
public void	Lock()
	Lock the Chest.
public void	Unlock()
	Unlock the Chest.
public FCLid	getLid()
	Returns FCLid, null if FCLid is disable.
public FCProp	getProp()
	Returns FCProp, null if FCProp is disable.
public FCPropParticle	getPropParticle()
	Returns FCPropParticle, null if FCPropParticle is disable.

public FCChestParticle	getChestParticle()	
	Returns FCChestParticle, null if FCChestParticle is disable.	
public FCSound	getSound()	
	Returns FCSound, null if FCSound is disable.	
public bool	IsOpened()	
	Is the Chest opened?	
public bool	IsClosed()	
	Is the Chest closed?	
public FCLid.eState	LidStatus()	
	Returns state of FCLid. {FCLid.eState.Open, FCLid.eState.Close}	

## **4.2 FCLid Class Reference**

## Description

 ${\it Script interface for the Lid gameObject}.$ 

## **Public Types**

public enum eState	Enumeration of the type of Lid state.
{	Open = Lid is open.
Open,	Close = Lid is close.
Close	
};	
public enum eLockStatus	Enumeration of the type of Lock state.
{	Locked = Chest is locked.
Locked,	Free = Chest is free and can be opened.
Free	
<b>}</b> ;	

#### **Public Variables**

public float	m_MaxOpenAngle = 120.0f
	Amount of maximum Axis in Euler Degrees when the Lid open.
public float	m_OpenValue
	Amount between 0 and 1. If this value is 1 the Lid is opening in maximum
	angle. 0 means the Lid is closed.
public FCEaseType.eEaseType	m_OpenEaseType = FCEaseType.eEaseType.OutBounce
	The shape of the easing curve applied to the opening animation.
public float	m_OpenDuration = 0.75f
	The time in seconds for the open animation will take to complete.
public FCEaseType.eEaseType	<pre>m_CloseEaseType = FCEaseType.eEaseType.InOutQuad</pre>
	The shape of the easing curve applied to the closing animation.
public float	m_CloseDuration = 0.5f
	The time in seconds the close animation will take to complete.

## **Public Functions**

public void	Open()
	Open the Lid.
public void	Open(float time)
	Open the Lid with a specified time duration in seconds.
public void	Close()
	Close the Lid.
public void	Close(float time)
	Close the Lid with a time specified in seconds.
public void	Close(eLockStatus LockStatus)
	Close the Lid and change Lock status.
public void	Close(float time, eLockStatus LockStatus)
	Close the Lid with a specified time duration in seconds and update Lock status.
public void	Lock()
	Lock the Lid.
public void	Unlock()
	Unlock the Lid.
public void	SetLock(eLockStatus LockStatus)
	Change Lock status of the Lid. {eLockStatus.Lock, eLockStatus .Free}
public bool	IsOpened()
	Is the Lid opened?
public bool	IsOpeningOrClosing()
	Returns true if Lid is playing Open/Close animation.
public eState	getLidStatus()
	Returns state of FCLid. {eState.Open, eState.Close}
public bool	IsLocked()
	Returns true, if Lid is locked.
public void	FindLid()
	Seek in children objects for a gameObject which its name contains string in
	m_LidString and keep it in m_Lid variable. (The Lid gameObject's name has to contain
	string in m_LidString.)

## **4.3 FCProp Class Reference**

## Description

Script interface for a gameObject inside the Chest. This gameObject will be shown when the Chest is opened.

## **Public Types**

public enum eTransformState	Enumeration of the type of transform state to use with Prop.
{	Begin = Prop begins transform.
Begin,	Changing = Prop position/rotation/scale are transforming.
Changing,	End = Prop transforms are finished.
End	
};	
public enum eRotationType	Enumeration of the type of rotation to use with Prop rotation.
{	Disable = Disable rotation.
Disable,	Endless = Rotates Prop around itself, forever.
Endless,	LimitedRound = Rotate Prop until round count is equal to
LimitedRound	m_MaxRotationRound.
};	
public enum eScaleType	Enumeration of the type of scale to use with Prop scaling.
{	Disable = disable Prop scaling.
Disable,	Enable = enable Prop scaling.
Enable	
};	

#### **Public Variables**

public GameObject	m_Prefab
	Reference to the prefab of the Prop to show when the Chest is opened.
public FCEaseType.eEaseType	m_PosEaseType = FCEaseType.eEaseType.OutElastic
	The shape of the easing curve applied to the moving animation.
public Vector3	m_PosBegin = new Vector3(0, 0, 0)
	Local position when initiated.
public Vector3	<b>m_PosEnd</b> = new Vector3(0, 2.0f, 0)
	Local position the Prop will move to.
public float	m_PosValue = 0.0f
	Amount between 0 and 1.
	0 = The Prop is at m_PosBegin position.
	1 = The Prop is at m_PosEnd position.
public float	m_PosDelay = 0.25f
	The time in seconds the animation will wait before begin moving.
public float	m_PosDuration = 1.0f
	The time in seconds the move animation will take to complete.
public eRotationType	m_RotationType = eRotationType.Endless
	Type of the rotation; Disable, Endless, Limited.
public FCEaseType.eEaseType	m_RotationEaseType = FCEaseType.eEaseType.InOutQuad
	The shape of the easing curve applied to the rotation animation.
public Vector3	m_Rotation = new Vector3(0, -1, 0)

	Direction of the rotation.
public float	m_RotationValue = 0.0f
	Amount between 0 and 1. 1 is 360 Euler Degrees.
public int	m_MaxRotationRound = 5
	Max round when Type is set to Limited.
public float	m_RotationDelay = 0
·	The time in seconds the animation will wait before begin rotation.
public float	m_RotationDurationPerRound = 2.0f
·	The time in seconds the rotation animation will take to complete a round.
public eScaleType	m_ScaleType = eScaleType.Disable
	Type of the scaling; Disable or Enable.
public FCEaseType.eEaseType	m_ScaleEaseType = FCEaseType.eEaseType.OutElastic
	The shape of the easing curve applied to the scaling animation.
public Vector3	m_ScaleBegin = new Vector3(1, 1, 1)
	Local scale to initiate the Prop.
public Vector3	m_ScaleEnd = new Vector3(2, 2, 2)
	Local scale the Prop will scale to.
public float	m_ScaleValue = 0.0f
	Amount between 0 and 1.
	0 = The Prop is same scale with m_ScaleBegin.
	1 = The Prop is scale to m_ScaleEnd.
public float	m_ScaleDelay = 0.5f
	The time in seconds the animation will wait before begin scaling.
public float	m_ScaleDuration = 1.0f
	The time in seconds the scaling animation will take to complete.
public bool	m_RemovedWhenChestClose = true
	If true, Prop will be removed when user closes the Lid.
public bool	m_FadeOut = true
	If true, Prop will be fade when user closes the Lid. Fade out needs shader which
	supports _Color with alpha channel.
public float	m_FadeOutDuration = 1.0f
	The time in seconds the fading will take to complete.
public float	m_RemoveDelay = 1.0f
	The time in seconds to wait before remove the Prop.

## **Public Functions**

public void	CreateProp()
	Create a new Prop.
public void	Remove()
	Remove the Prop.
public void	Remove(float Delay)
	Remove the Prop with a delay specified in seconds.
public void	Show()
	Show the Prop. This function works only when Chest is opened.
public void	Show(float PosDelay, float RotationDelay, float ScaleDelay)
	Show the Prop with delays specified in seconds of Position, Rotation and Scaling.
public bool	isShowing()
	Returns true, if Prop is showing.
public GameObject	getPrefab()
	Return m_Prefab.
public GameObject	getPropGameObject()
	Return a gameObject reference to the Prop.

## **4.4 FCParticle Class Reference**

## Description

Script interface for First Chest Particle. FCParticle is base class of FCPropParticle and FCChestParticle.

#### **Public Variables**

public GameObject	m_Prefab
	Reference to the prefab of the Particle.
public Vector3	m_OffSetLocalPosition
	Local position when initiated.
public bool	m_isLoop = true
	True to loop Particle when it reaches the end.
public ParticleSystemSimulationSpace	m_SimulationSpace = ParticleSystemSimulationSpace.World
	Type of coordinate space in which to operate.
public float	m_RemoveDelay = 1.0f
	The time in seconds to wait before remove the Particle.

#### **Public Functions**

public void	CreateParticle()
	Create new Particle from m_Prefab.
public void	Remove()
	Remove the Particle.
public void	Remove(float Delay)
	Remove the Particle with a delay specified in seconds.
public void	UpdateParticlePosition()
	Move Particle follow to the parent's position.
public GameObject	getPrefab()
	Returns <b>m_Prefab</b> of Particle.
public GameObject	getParticleGameObject()
	Returns Particle gameObject.
public FCMain	getMain()
	Returns <b>FCMain</b> .
public int	getCounter()
	Returns a number for checking how many times Particle was created.
public void	setRemoveDelay (float RemoveDelay)
	Set delay specified in seconds for using when remove this Particle; this Function is called by
	Remove().

## **4.5 FCPropParticle Class Reference**

## Description

Script interface for Prop Particle gameObject.

#### **Public Variables**

public bool	m_CreateWhenChestOpen = true	
	If true, Particle will be initiated when user opens the Chest.	
public bool	m_RemovedWhenChestClose = true	
	If true, Particle will be removed when user closes the Chest.	

## **4.6 FCChestParticle Class Reference**

## Description

Script interface for Chest Particle gameObject.

#### **Public Variables**

public bool	m_RemoveWhenChestOpen = true	
	If true, Particle will be removed when user opens the Chest.	
public bool	m_CreateWhenChestClose = false	
	If true, Particle will be created when user closes the Chest.	

## **4.7 FCSound Class Reference**

## Description

Script interface for First Chest Sound. This class needs AudioSource to work properly.

#### **Public Variables**

_	<del>,</del>
public bool	m_EnableSoundClose = true
	If true, Close sound is enabled.
public AudioClip	m_SoundClose
	Reference to the Audio Clip of Close sound.
public float	m_SoundCloseDelay = 0.25f
	The time in seconds to delay before play Close sound.
public bool	m_EnableSoundOpen = true
	If true, Open sound is enabled.
public AudioClip	m_SoundOpen
	Reference to an Audio Clip of Open sound.
public float	m_SoundOpenDelay = 0.0f
	The time in seconds to delay before play Open sound.
public bool	m_EnableSoundOpenFailed = true
	If true, Open Failed sound is enabled.
public AudioClip	m_SoundOpenFailed
	Reference to the Audio Clip of OpenFailed sound.
public float	m_SoundOpenFailedDelay = 0.0f
	The time in seconds to delay before play OpenFailed sound.
public bool	m_EnableSoundSetLock = true
	If true, Lock sound is enabled.
public AudioClip	m_SoundSetLock
	Reference to the Audio Clip of Lock sound.
public float	m_SoundSetLockDelay = 0.0f
	The time in seconds to delay before play Lock sound.
public bool	m_EnableSoundSetUnlock = true
	If true, Unlock sound is enabled.
public AudioClip	m_SoundSetUnlock
	Reference to the Audio Clip of Unlock sound.
public float	m_SoundSetUnlockDelay = 0.0f
	The time in seconds to delay before play Unlock sound.
public bool	m_EnableSoundProp = true
	If true, Prop sound is enabled.
public AudioClip	m_SoundProp
	Reference to the Audio Clip of Prop sound.
public float	m_SoundPropDelay = 0.25f
	The time in seconds to delay before play Prop sound.

#### **Public Functions**

public void	CreateAudioSource()	
	Create Unity AudioSounce component.	
public void	PlaySoundClose()	
	Play Close sound.	
public void	PlaySoundOpen()	
	Play Open sound.	
public void	PlaySoundOpenFailed()	
	Play OpenFailed sound.	
public void	PlaySoundSetLock()	
	Play Lock sound.	
public void	PlaySoundSetUnlock()	
	Play Unlock sound.	
public void	PlaySoundProp()	
	Play PropShow sound.	
public void	StopSoundProp()	
	Stop Prop sound.	
public void	StopSoundProp(float Delay)	
	Stop Prop sound with a delay specified in seconds. Used in PlaySoundClose() function.	

## 4.8 FCGameObjectUtil Class Reference

## Description

Script interface for a First Chest GameObjectUtil. This class contains utilities for using in other First Chest classes.

#### **Public Variables**

public Vector3	m_rotation	
	The rotation of gameObject.	
public bool	m_isRotate = false	
	If true, gameObject is rotating.	
public float	m_RemoveDelay = 1.0f	
	The time in seconds to wait before remove gameObject.	
public bool	m_RemoveFadeout = false	
	If true, the gameObject will be fade out before it is removed.	
public float	m_DurationCount = 1.0f	
	The count down time in seconds the fading will take to complete.	
public float	m_FadeOutDuration = 1.0f	
	The time in seconds the fading will take to complete.	
public float	t m_AlphaFadeValue = 1.0f	
	Amount of alpha color.	

#### **Public Functions**

public void	InitRotation(Vector3 rotation)	
	Sets the rotation of gameObject.	
public void	StartRotation()	

	Start rotation.	
public void	StopRotation()	
	Stop rotation.	
public void	SelfRemoveGameObject(float RemoveDelay, bool RemoveFadeout, float FadeOutDuration)	
	Remove gameObject with a delay specified in seconds. If RemoveFadeout is true, Fade out	
	gameObject with time specified in seconds while delay is counting. Fade out needs shader	
	which supports _Color with alpha channel.	
public void	SelfRemoveParticle(float RemoveDelay, float ParticleLifeTime)	
	Remove ParticleSystem with a delay specified in seconds. Specified delay will be added with	
	Particle life time.	

## **4.9 FCEaseType Class Reference**

## Description

Script interface for the easetype to use with HOTween, LeanTween and iTween.

## **Public Types**

public enum <b>eEaseType</b> {	An enumeration of the type of easing to use with tweeners.
InQuad, OutQuad, InOutQuad,	Reference for each ease type:
InCubic, OutCubic, InOutCubic,	http://www.robertpenner.com/easing/easing_demo.html
InQuart, OutQuart, InOutQuart,	
InQuint, OutQuint, InOutQuint,	
InSine, OutSine, InOutSine,	
InExpo, OutExpo, InOutExpo,	
InCirc, OutCirc, InOutCirc,	
linear,	
spring,	
InBounce, OutBounce, InOutBounce,	
InBack, OutBack, InOutBack,	
InElastic, OutElastic, InOutElastic	
}	

## **Static public Functions**

public static Holoville.HOTween.EaseType	EaseTypeConvert(eEaseType easeType)
	Convert eEaseType to HOTween EaseType.
public static LeanTweenType	EaseTypeConvert(eEaseType easeType)
	Convert eEaseType to LeanTween EaseType.
public static string	EaseTypeConvert(eEaseType easeType)
	Convert eEaseType to iTween EaseType string.