Easy UI Motion

Table des matières

What is Easy UI Motion

Easy UI Motion allows you to animate your 2D full screen interfaces made with Unity UI, easily and visually. Manage Opening /closing effects, or simple effects on element or groups of elements that make up your interface.

Easy UI Motion uses the new events system, that allow you to chain and manage the elements of your interface, without writing a line of code.

Two Components :
* Open/Close
* Simple/Rewind

Animate your items on the following actions :
* Position
* Rotation
* Scale
* Transparency

Personalized your effect :
* The easing
* The time for action
*etc..

Link your motions :
* With event system (WYSIWYG)
* With build in API

Creating funny interface has never been easier, by simply adding EasyUIMotion components to the UI element you want to animate.

Watch the video presentation, click here

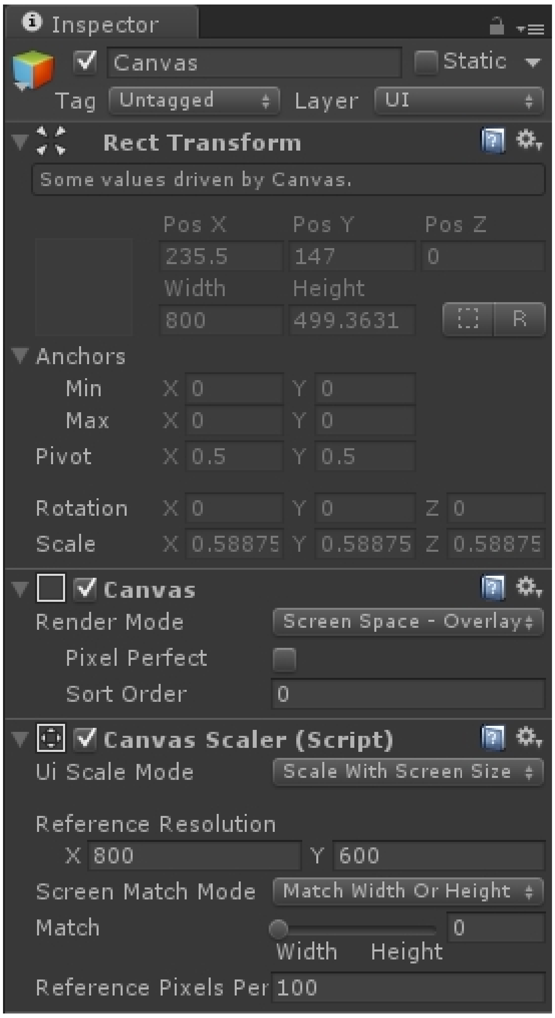
And Look at the examples that are provided.

Setting up your canvas

Easy UI Motion is for 2D interfaces created with Unity UI.

It should be used on UI objects belonging to gamobject with a **Canvas** and **Canvas Scaler** component set as follows :

- Render Mode set to : **Screen Space - Overlay**
- Ui Scale Mpde set to **Scale with screen size**



Inspector

☑ Canvas □ Static

Tag Untagged Layer UI

Rect Transform

Some values driven by Canvas.

Pos X 235.5 Pos Y 147 Pos Z 0

Width 800 Height 499.3631

Anchors

Min X 0 Y 0

Max X 0 Y 0

Pivot X 0.5 Y 0.5

Rotation X 0 Y 0 Z 0

Scale X 0.58875 Y 0.58875 Z 0.58875

☑ Canvas

Render Mode Screen Space - Overlay

Pixel Perfect □

Sort Order 0

☑ Canvas Scaler (Script)

Ui Scale Mode Scale With Screen Size

Reference Resolution

X 800 Y 600

Screen Match Mode Match Width Or Height

Match 0

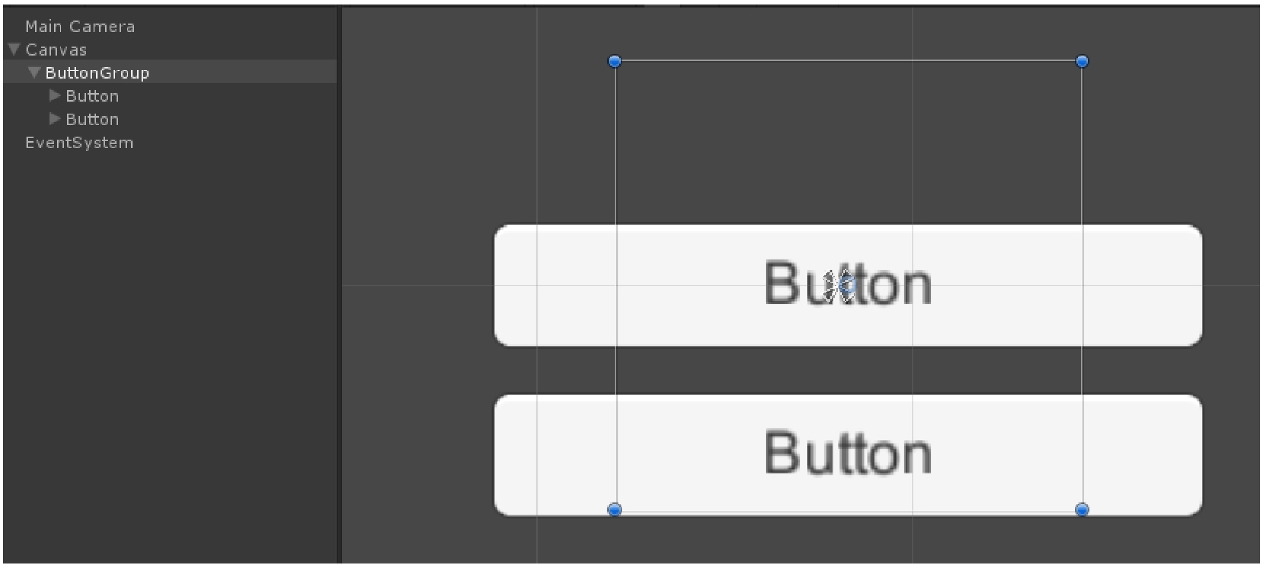
Width Height

Reference Pixels Per 100

Group of UI elements

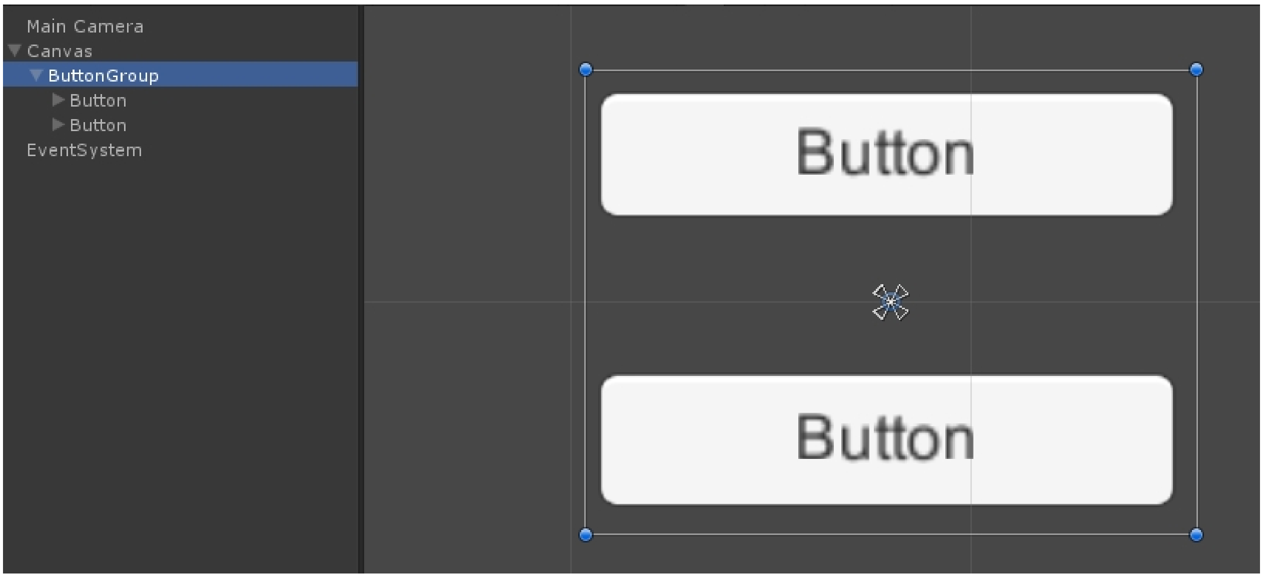
If you want to apply an effect on a group of elements, the first object of the group must encompass all child objects, otherwise the calculations of the opening and closing position will be incorrect

NOT GOOD



Main Camera
Canvas
ButtonGroup
Button
Button
EventSystem

GOOD

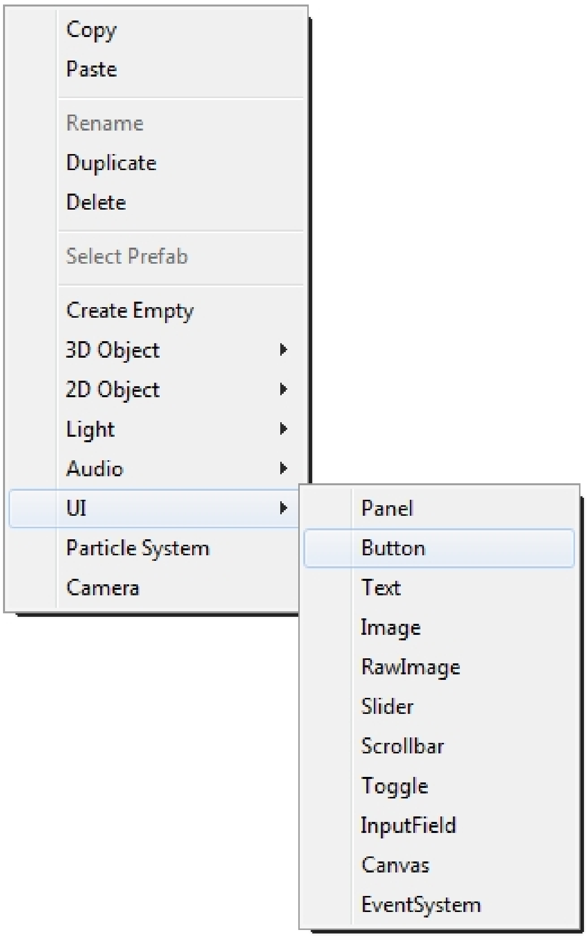


Main Camera
Canvas
ButtonGroup
Button
Button
EventSystem

Quick Start

- Import Easy UI Motin package

- Create a button (Right click on jierarchy view => UI => Button



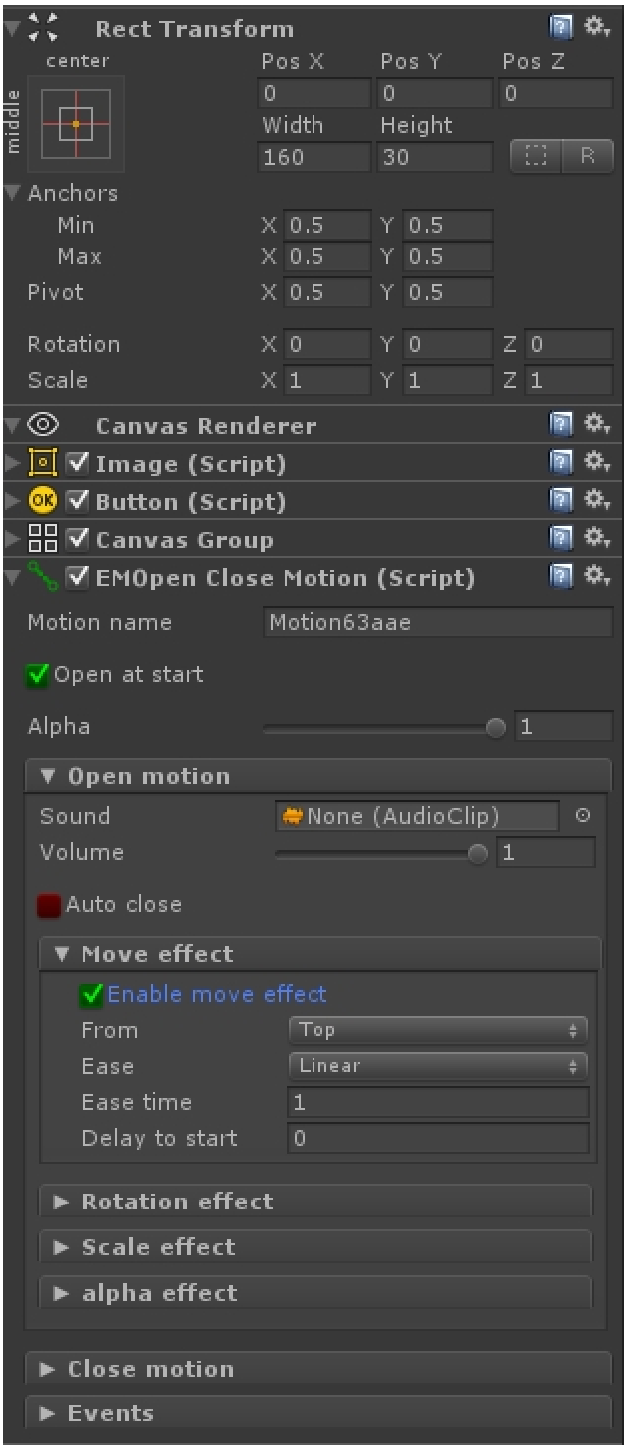
- Setting up your canvas as shown here

- Select the button in the hierarchy view

- Position it 0,0,0

- Add OpenClose Motion component => Add component button => UI => Effects =>Open-Close Motion

- Enabled move move effect



Rect Transform

center / middle

Pos X 0 | Pos Y 0 | Pos Z 0

Width 160 | Height 30

Anchors

Min X 0.5 Y 0.5

Max X 0.5 Y 0.5

Pivot X 0.5 Y 0.5

Rotation X 0 Y 0 Z 0

Scale X 1 Y 1 Z 1

Canvas Renderer

☑ Image (Script)

☑ Button (Script)

☑ Canvas Group

☑ EMOpen Close Motion (Script)

Motion name Motion63aae

☑ Open at start

Alpha 1

▼ Open motion

Sound None (AudioClip)

Volume 1

□ Auto close

▼ Move effect

☑ Enable move effect

From Top

Ease Linear

Ease time 1

Delay to start 0

► Rotation effect

► Scale effect

► alpha effect

► Close motion

► Events

- Start Playback mode

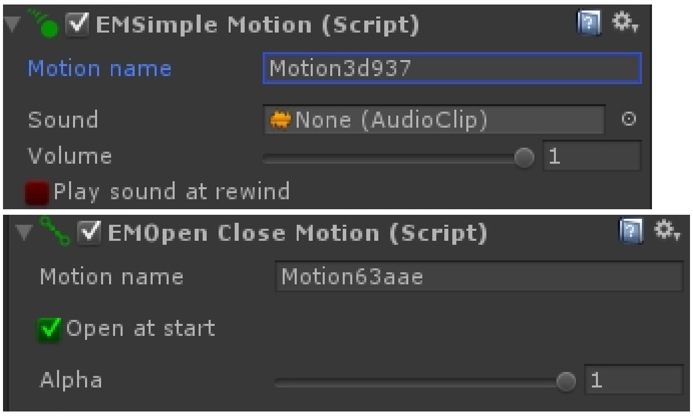
Available components

Easy UI Motion has 2 components EMOpenCloseMotion & EMSimpleMotion,which can be applied to an element or an element group. You can also apply on a child element of a group of which has itself a motion effect.

When you add an EasyUIMotion component, it adds even CanvasGroup component to manage transparency, selectable mode or not state.

Multi component & naming

An element or group of elements can receive multiple components of the same type. But in this case be careful to name you give to your purpose, it must be unique for the current scene.
This name will serve you in case you want to use Easy Motion Ui with its API (When creating the component a random name assigned to it in the form: Motion3d937).



☑ EMSimple Motion (Script)

Motion name: Motion3d937

Sound: None (AudioClip)

Volume: 1

□ Play sound at rewind

☑ EMOpen Close Motion (Script)

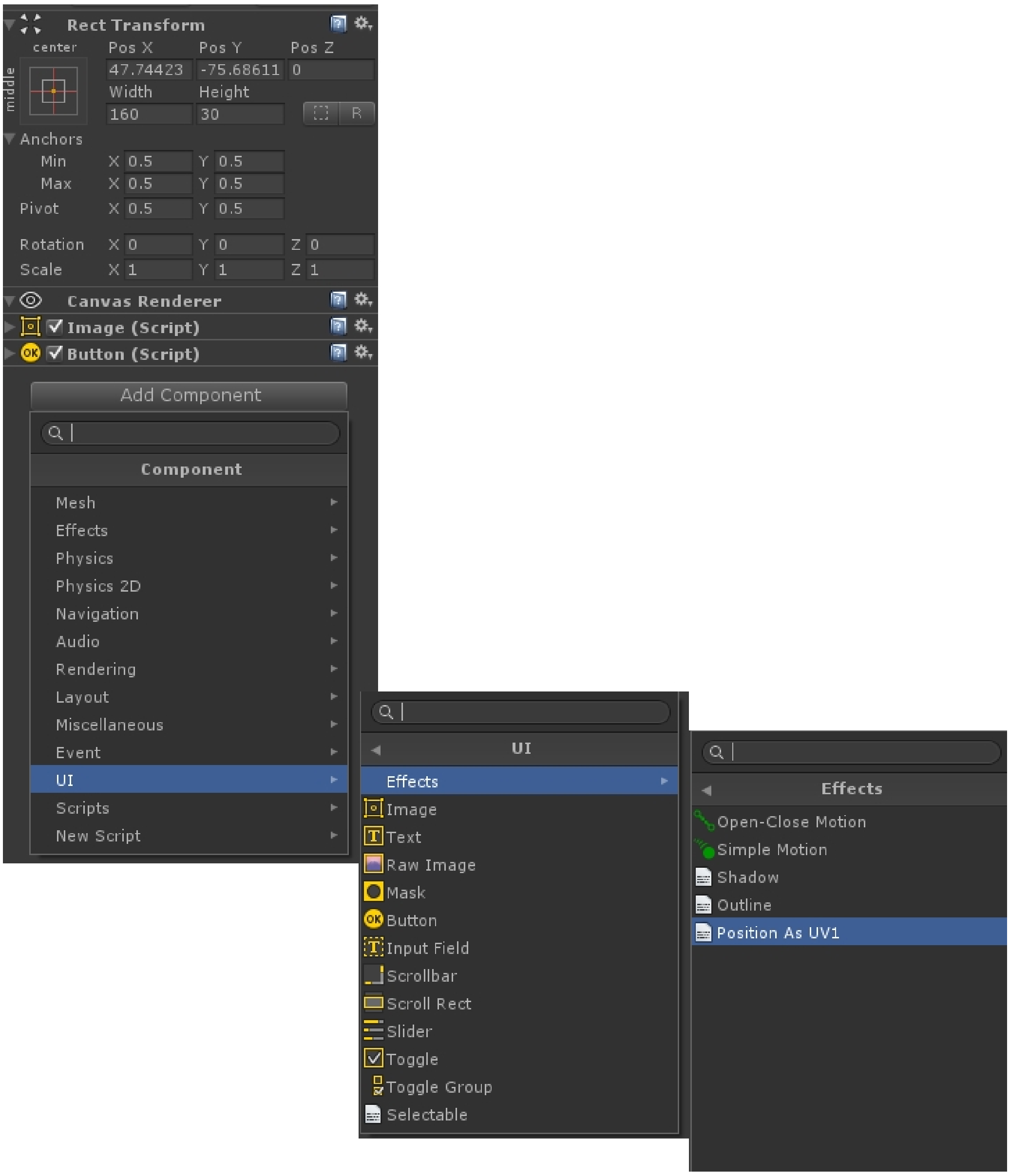
Motion name: Motion63aae

☑ Open at start

Alpha: 1

Add component

These components are accessible from the Add Component button in the inspector.



Rect Transform

center middle

Pos X 47.74423 Pos Y -75.68611 Pos Z 0

Width 160 Height 30

Anchors

Min X 0.5 Y 0.5

Max X 0.5 Y 0.5

Pivot X 0.5 Y 0.5

Rotation X 0 Y 0 Z 0

Scale X 1 Y 1 Z 1

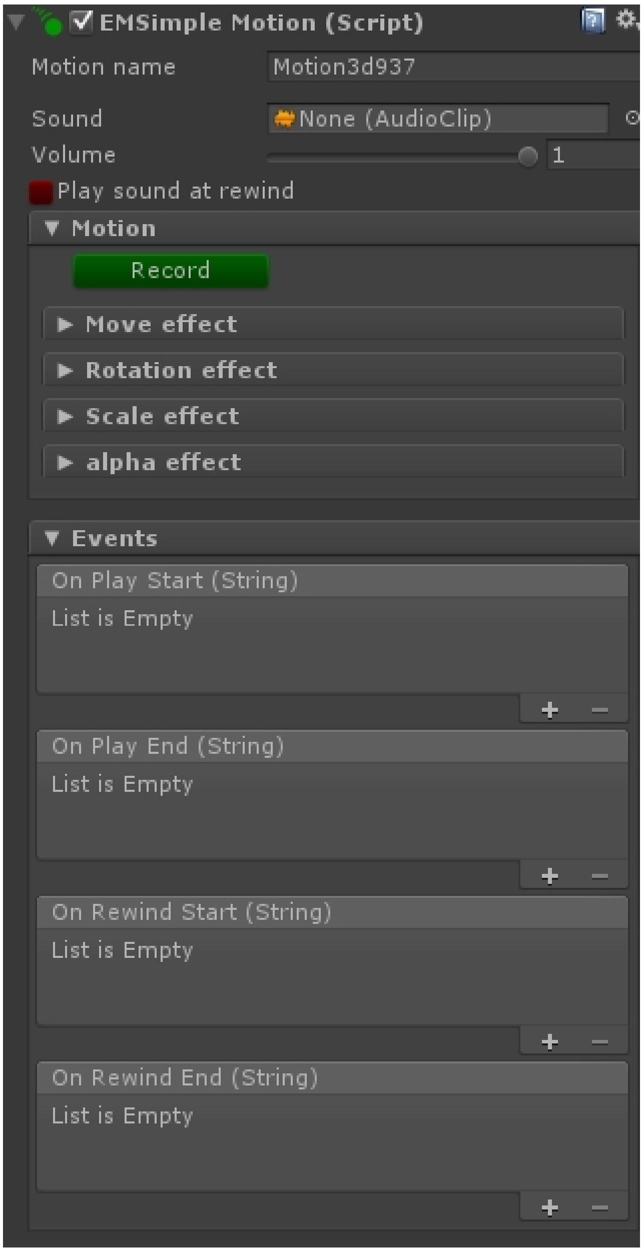
Canvas Renderer

☑ Image (Script)

☑ Button (Script)

Custom Inspector

Each component has a custom inspector, allowing you to configure motion effects & events.



☑ EMSimple Motion (Script)

Motion name: Motion3d937

Sound: None (AudioClip)

Volume: 1

🟥 Play sound at rewind

On Play Start (String)
List is Empty

On Play End (String)
List is Empty

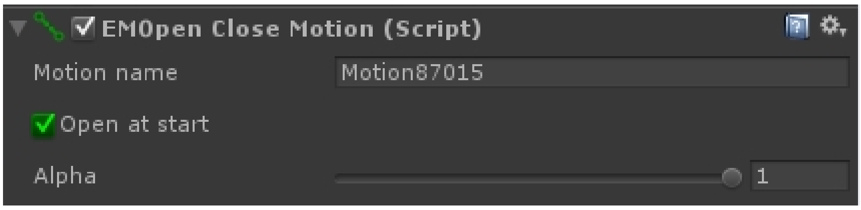
On Rewind Start (String)
List is Empty

On Rewind End (String)
List is Empty

EMOpenCloseMotion

This component allows you to manage the opening and closing of an element or group of elements. It has 2 motions (Open & Close).
This component considers the current state in scene view corresponds to the open state.

General properties



☑ EMOpen Close Motion (Script)

Motion name: Motion87015

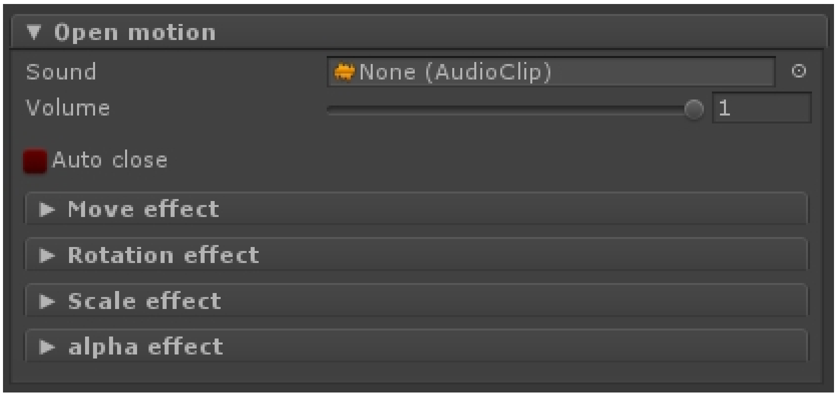
☑ Open at start

Alpha: 1

- **Motion name :** The name of the motion, must be unique.
- **Open at start :** Set if the element or group of elements will be displayed at application launch.
- **Alpha :** Defined transparency for the current state (open)

Open Motion

Here you define the initial state before opening. More detail here



▼ Open motion

Sound: None (AudioClip)

Volume: 1

□ Auto close

▶ Move effect

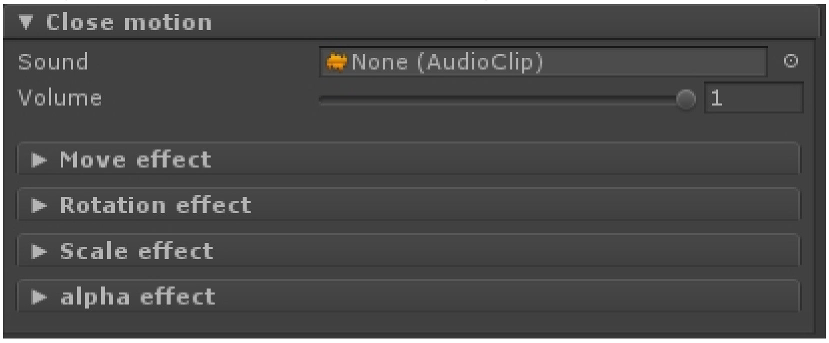
▶ Rotation effect

▶ Scale effect

▶ alpha effect

Close Motion

Here you define the final state after closing. More detail here



▼ Close motion

Sound: None (AudioClip)

Volume: 1

▶ Move effect

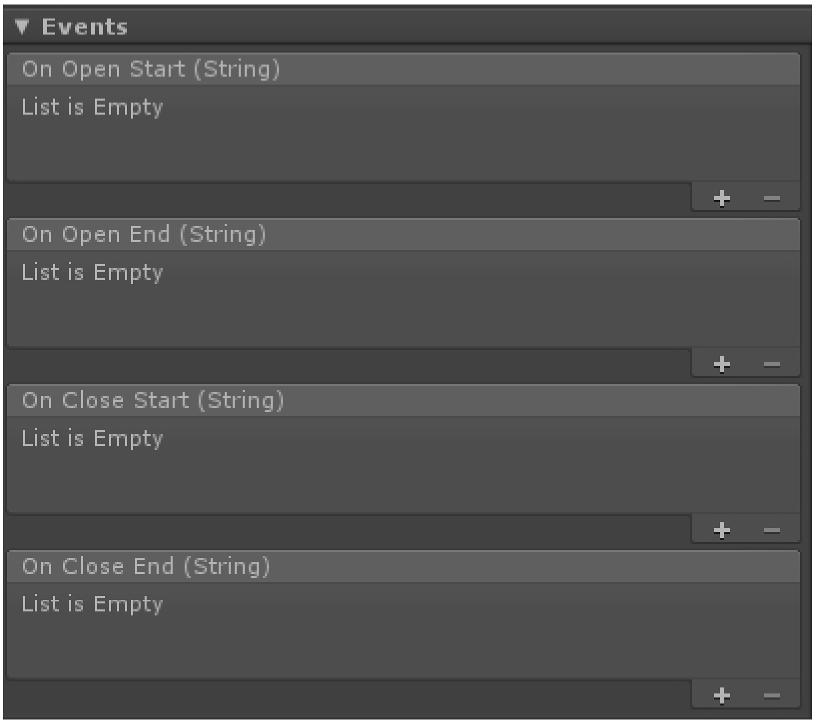
▶ Rotation effect

▶ Scale effect

▶ alpha effect

Events

Adds actions to take based on the event.



▼ Events

On Open Start (String)

List is Empty

On Open End (String)

List is Empty

On Close Start (String)

List is Empty

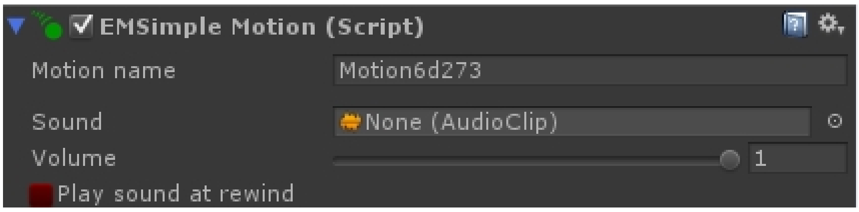
On Close End (String)

List is Empty

EMSImpleMotion

This component allows you to add simple motion (play/rewind) on element or group of elements, that are already displayed.

General properties



☑ EMSimple Motion (Script)

Motion name: Motion6d273

Sound: None (AudioClip)

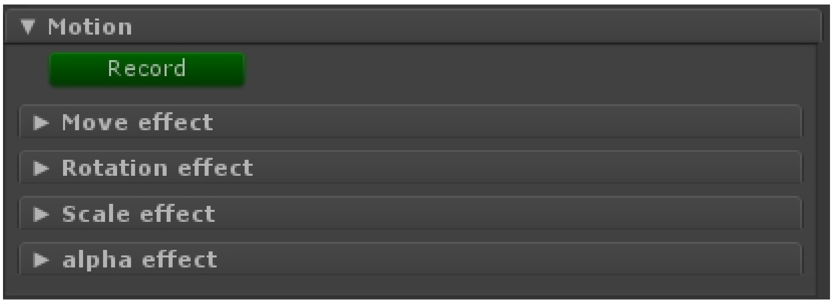
Volume: 1

□ Play sound at rewind

- **Motion name :** The name of the motion, must be unique.
- **Sound** : The sound that will be played at the playing
- **Volume** : The sound volume
- **Play sound at rewind :** Enabled to play sound a rewind

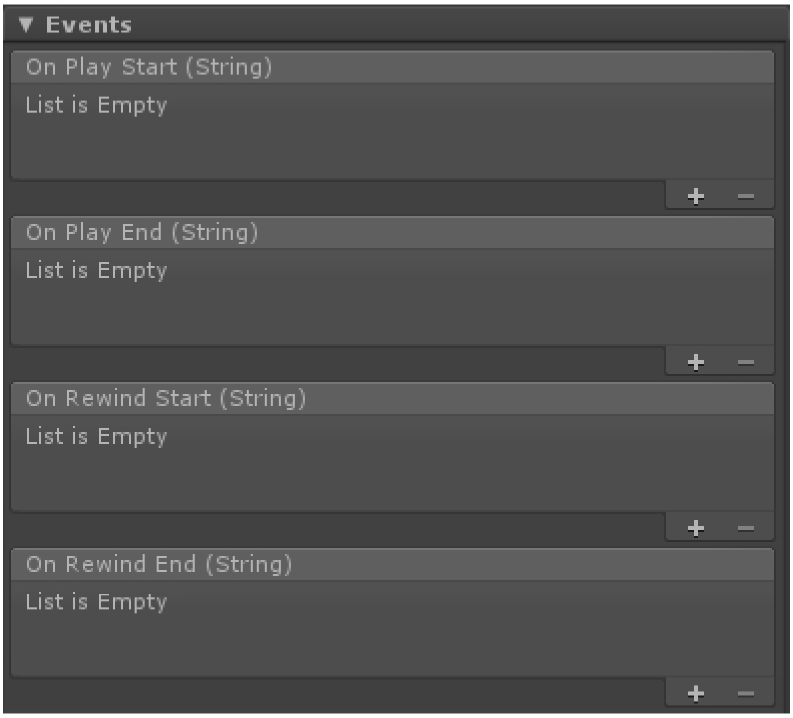
Motion

More detail here



Events

Adds actions to take based on the event.



▼ Events

On Play Start (String)
List is Empty

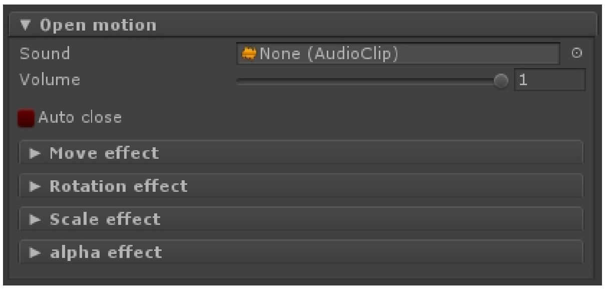
On Play End (String)
List is Empty

On Rewind Start (String)
List is Empty

On Rewind End (String)
List is Empty

Motion

Here you define the initial state before opening for Open motion, or final state after closing for Close motion.

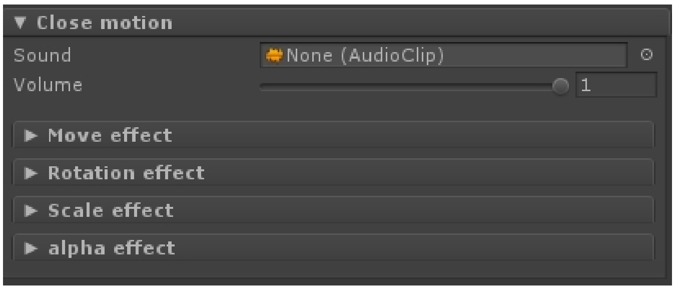


▼ Open motion

Sound: None (AudioClip)

Volume: 1

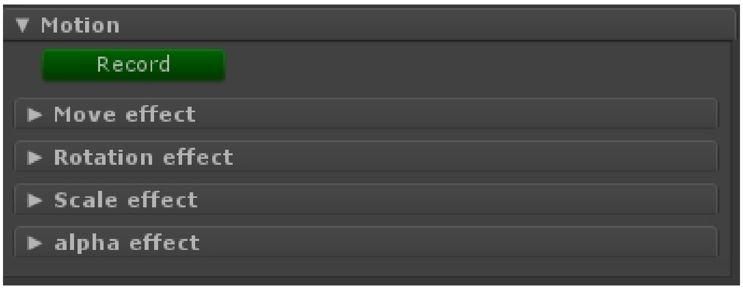
Auto close



▼ Close motion

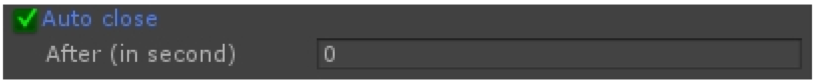
Sound: None (AudioClip)

Volume: 1



▼ Motion

- **Sound** : The sound that will be played at the opening / closing (**Only openClose motion**)
- **Volume** : The sound volume

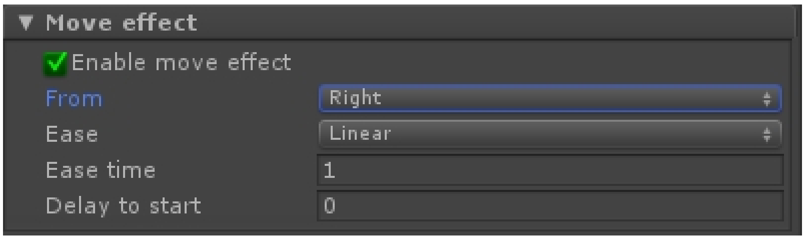


☑ Auto close
After (in second) 0

- **Auto Close** : Allows the automatic closing once the open state is reached. This is useful in cases of display element to remain at the screen for a short time **(Only for Open Motion)**
- **After (in second)** : The time in seconds to wait before the closure is launched

- **Record Button** : Allow to record all effect destination in scene view **(only for simple motion)**

- **Move Effect :** More detail here

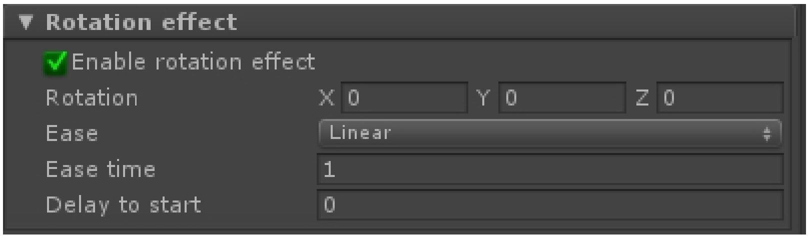


▼ Move effect
☑ Enable move effect
From Right
Ease Linear
Ease time 1
Delay to start 0

- **Rotation effect**

Sets the rotation from which the movement will be made to reach the open/ close rotation, or the rotation that must be reached for a simple motion

Easing more detail here

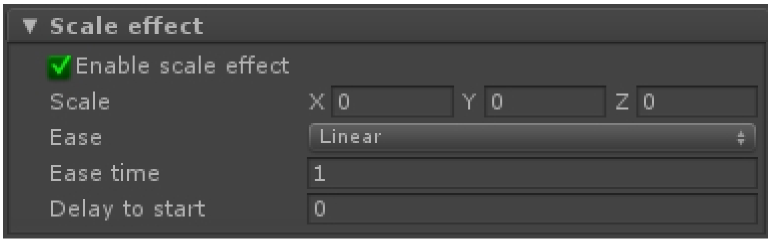


▼ Rotation effect
☑ Enable rotation effect
Rotation X 0 Y 0 Z 0
Ease Linear
Ease time 1
Delay to start 0

- **Scale effect**

Sets the scale from which the movement will be made to reach the open/close scale, or the scale that must be reached for a simple motion

Easing more detail here

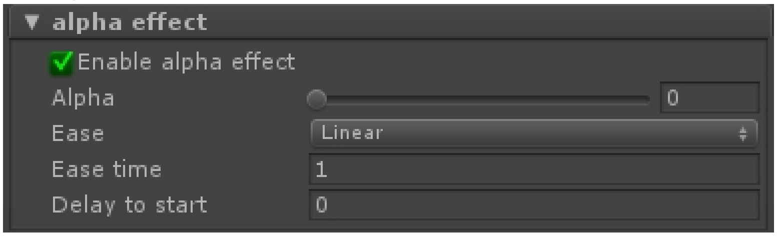


▼ Scale effect
☑ Enable scale effect
Scale X 0 Y 0 Z 0
Ease Linear
Ease time 1
Delay to start 0

- **alpha effect**

Sets the transparency from which the movement will be made to reach the open/close alpha, or the alpha that must be reached for a simple motion

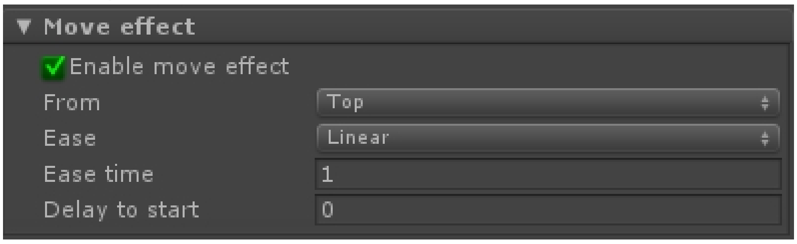
Easing more detail here



▼ alpha effect
☑ Enable alpha effect
Alpha 0
Ease Linear
Ease time 1
Delay to start 0

Move Effect

Sets the position from which the movement will be made to reach the open/close position



▼ Move effect

☑ Enable move effect

From: Top

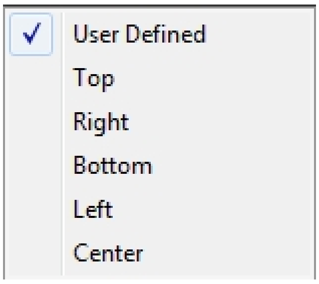
Ease: Linear

Ease time: 1

Delay to start: 0

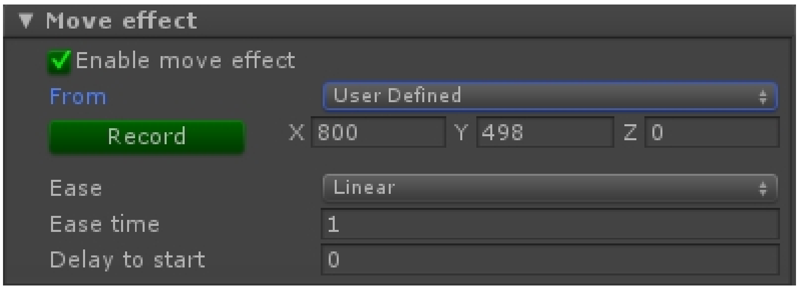
- **Enable move effect** : Enables / disable move effect

- **From** :



The initial position relative to the current position in the scene view. The position will be calculated automatically and will be outside the canvas

User defined



▼ Move effect

☑ Enable move effect

From: User Defined

X 800 Y 498 Z 0

Ease: Linear

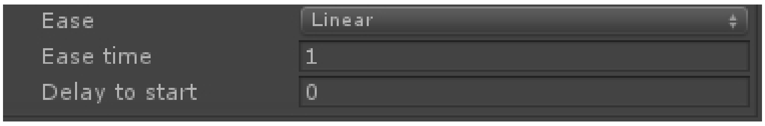
Ease time: 1

Delay to start: 0

In this mode you set yourself the starting position.
Press the Record button => place your element in the scene view => Press the Stop button Record

- Easing more detail here

Easing



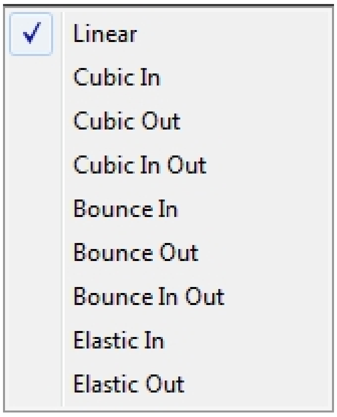
Ease Linear

Ease time 1

Delay to start 0

- **Ease** :

The easing mode that will be used for the movement



- **Ease time** : The duration of effect
- **Delay to start** : The waiting time before starting the effect, after the opening request is given

API

Easy UI Motion has an API so that it can be used with the new event system, or with a script. It will be listed that members & useful functions.

EMOpenCLoseMotion API : Use when using the event system.

EMSimpleMotion API : Use when using the event system.

EMMotionManager API : Use your own script.

EMOpenCloseMotion

These functions will be useful when using the new WYSIWYG event system from unity

Public functions

Open() : Launch Open effect when there is only one OpenClose component.

Open(String motionName) : Launch Open effect of OpenClose component identified by motionName.

Close() : Launch Open effect when there is only one OpenClose component.

Close(String motionName) : Launch Open effect of OpenClose component identified by motionName.

SetStateToOpen() : Force state to Open when there is only one OpenClose component.

SetStateToOpen(string motionName) : Force state to Open on motion identified by motionName.

SetStateToClose() : Force state to Close when there is only one OpenClose component.

SetStateToClose(String motionName) : Force state to Close on motion identified by motionName

ShowUIElement() : Show UI element and his child when there is only one OpenClose component.

ShowUIElement(string motionName) : Show UI element and his child on motion identified by motionName.

HideUIElement() : Hide UI element and his child when there is only one OpenClose component.

HideUIElement(string motionName) : Hide UI element and his child on motion identified by motionName.

EnableUIElement() : Enabled UI element when there is only one OpenClose component. The selectable items are no longer active

EnableUIElement(string motionName) : Enabled UI element on motion identified by motionName. The selectable items are no longer active

DisableUIElement() : Disabled UI element when there is only one OpenClose component.

DisableUIElement(string motionName) : Disabled and his child UI element on motion identified by motionName.

Events

onOpenStart : Occurs at the beginning of the open motion.

onOpenEnd : Occurs when the closing of open motion is completed.

onCloseStart : Occurs at the beginning of the close motion.

onCloseEnd : Occurs at the beginning of the close motion.

EMSimpleMotion

These functions will be useful when using the new WYSIWYG event system from unity

Public functions

PlayMotion() : Launch the motion when there is only one SimpleMotion component.

PlayMotion(String motionName) : Launch motion of SimpleMotion component identified by motionName.

RewindMotion() : Launch rewind motion when there is only one OpenClose component.

RewindMotion(String motionName) : Launch rewind motion of SimpleMotion component identified by motionName.

Reset() : Reset the motion to initial state to relaunch a the motion if you don't want to launch rewind motio.

Reset(string motionName) : Reset the motion to initial state to relaunch a the motion if you don't want to launch rewind motio.

ShowUIElement() : Show UI element and his child when there is only one OpenClose component.

ShowUIElement(string motionName) : Show UI element and his child on motion identified by motionName.

HideUIElement() : Hide UI element and his child when there is only one OpenClose component.

HideUIElement(string motionName) : Hide UI element and his child on motion identified by motionName.

EnableUIElement() : Enabled UI element when there is only one OpenClose component. The selectable items are no longer active

EnableUIElement(string motionName) : Enabled UI element on motion identified by motionName. The selectable items are no longer active

DisableUIElement() : Disabled UI element when there is only one OpenClose component.

DisableUIElement(string motionName) : Disabled and his child UI element on motion identified by motionName.

Events

onPlayStart : Occurs at the beginning of the start motion.

onPlayEnd : Occurs when the starting of open motion is completed.

onRewindStart : Occurs at the beginning of the rewind motion.

onRewindEnd : Occurs at the end of the rewind motion.

EMMotionManager

EMMotionManager

This class allow to control motion with static function

Static functions

void Open(String motionName) : Launch Open effect of OpenClose component identified by motionName.

void Close(String motionName) : Launch Open effect of OpenClose component identified by motionName.

voidSetStateToOpen(string motionName) : Force state to Open on motion identified by motionName.

void SetStateToClose(String motionName) : Force state to Close on motion identified by motionName

void PlayMotion(String motionName) : Launch motion of SimpleMotion component identified by motionName.

void RewindMotion(String motionName) : Launch rewind motion of SimpleMotion component identified by motionName.

void ResetSimpleMotion(string motionName) : Reset the motion to initial state to relaunch a the motion if you don't want to launch rewind motion

void ShowUIElement(string motionName) : Show UI element and his child on motion identified by motionName.

void HideUIElement(string motionName) : Hide UI element and his child on motion identified by motionName.

void EnableUIElement(string motionName) : Enabled UI element on motion identified by motionName. The selectable items are no longer active

void DisableUIElement(string motionName) : Disabled and his child UI element on motion identified by motionName.

EMBaseMotion.MotionState GetState(string motionName) : Return the current state of the motion identified by motionName