

# CAPH.WUI.ENGINE.TWEEN.TIMELINE

The Timeline organizes and controls animations of the content over time in layers. Layers are like multiple film strips stacked on top of one another, each containing a different animations of different objects.

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## Methods

### remove

#### Description

Timeline 'remove' method allows you to remove a layer from timeline.

#### Parameters

- **layerName**
  - String
- **errorCB (Optional)**
  - function

#### Return

- **Object**
  - Timeline object itself.

#### Emulator Support

Y

#### SDK Constraint

none

#### Example

```
var AccRendering = caph.wui.engine.rendering;
var basePage = new AccRendering.BasePage();

var element = document.createElement('div');
element.style.width = '100px';
element.style.height = '100px';
element.style.background = '#00AAAA';

var obj = new AccRendering.CssObject(element);
basePage.add(obj);

obj.setZScale(1.5);

var renderer = new AccRendering.CssRenderer();
renderer.render(basePage);

var AccTween = caph.wui.engine.tween;
var layer = new AccTween.Layer();
layer.add(obj, {translateX:200}, {duration: 2000});
layer.add(obj, {rotateX:10*(Math.PI/180)}, {duration: 1000});

var layer2 = new AccTween.Layer();
layer2.add(obj, {tarnslateY:100}, {durtaion: 3000});

var timeline = new AccTween.Timeline();
timeline.add('first', layer);
timeline.add('second', layer2);
timeline.remove('second');
timeline.start(renderer, basePage);
```

## onComplete

### Description

Timeline 'onComplete' is a callback method, automatically called when timeline is complete .

Parameters	■cb - Function - Callback function to be called when timeline completes
Return	■Void
Emulator Support	Y
SDK Constraint	none

### Example

```
var AccRendering = caph.wui.engine.rendering;
var basePage = new AccRendering.BasePage();

var element = document.createElement('div');
element.style.width = '100px';
element.style.height = '100px';
element.style.background = '#00AAAA';

var obj = new AccRendering.CssObject(element);
basePage.add(obj);

obj.setZScale(1.5);

var renderer = new AccRendering.CssRenderer();
renderer.render(basePage);

var AccTween = caph.wui.engine.tween;
var layer = new AccTween.Layer();
layer.add(obj, {translateX:200}, {duration: 2000});
layer.add(obj, {rotateX:10*(Math.PI/180)}, {duration: 1000});

var timeline = new AccTween.Timeline();
timeline.add('first', layer);
timeline.onComplete(onCompleteCallbackFn);
timeline.start(renderer, basePage);

function onCompleteCallbackFn() {
    console.log("Timeline completion");
}
```

## setLoop

### Description

Timeline 'setLoop' method used to loop timeline for number of times given in 'number'. If number is negative, timeline loops infinite times.

Parameters	■number - Number - The number of loops to be set.
Return	■Void
Emulator Support	Y
SDK Constraint	none

### Example

```

var AccRendering = caph.wui.engine.rendering;
var basePage = new AccRendering.BasePage();

var element = document.createElement('div');
element.style.width = '100px';
element.style.height = '100px';
element.style.background = '#00AAAA';

var obj = new AccRendering.CssObject(element);
basePage.add(obj);

obj.setZScale(1.5);

var renderer = new AccRendering.CssRenderer();
renderer.render(basePage);

var AccTween = caph.wui.engine.tween;
var layer = new AccTween.Layer();
layer.add(obj, {translateX:200}, {duration: 2000});
layer.add(obj, {rotateX:10*(Math.PI/180)}, {duration: 1000});

var timeline = new AccTween.Timeline();
timeline.add('first', layer);
timeline.setLoop(5);
timeline.start(renderer, basePage);

```

## start

### Description

Timeline 'start' method allows you to start animation on timeline with attached renderer and basepage.

### Parameters

- **renderer**
  - Object
  - The renderer attached to the timeline.
- **basepage**
  - Object
  - The basepage attached to the timeline.

### Return

■ **Void**

### Emulator Support

Y

### SDK Constraint

none

### Example

```

var AccRendering = caph.wui.engine.rendering;
var basePage = new AccRendering.BasePage();

var element = document.createElement('div');
element.style.width = '100px';
element.style.height = '100px';
element.style.background = '#00AAAA';

var obj = new AccRendering.CssObject(element);
basePage.add(obj);

obj.setZScale(1.5);

var renderer = new AccRendering.CssRenderer();
renderer.render(basePage);

var AccTween = caph.wui.engine.tween;
var layer = new AccTween.Layer();
layer.add(obj, {translateX:200}, {duration: 2000});
layer.add(obj, {rotateX:10*(Math.PI/180)}, {duration: 1000});

var timeline = new AccTween.Timeline();
timeline.add('first', layer);
timeline.start(renderer, basePage);

```

# add

## Description

Timeline 'add' method used to add layer to the timeline with given layerName, errorCallback,errorCB is called when an error occurs .

Parameters	<ul style="list-style-type: none"><li>■layerName<ul style="list-style-type: none"><li>- Object</li><li>- Layer name to be added.</li></ul></li><li>■Layer<ul style="list-style-type: none"><li>- Object</li><li>- The Layer to be attached</li></ul></li><li>■errCB (Optional)<ul style="list-style-type: none"><li>- Function</li><li>- callback function in case any error occurs</li></ul></li></ul>
Return	<ul style="list-style-type: none"><li>■Object<ul style="list-style-type: none"><li>- Timeline object itself.</li></ul></li></ul>
Emulator Support	Y
SDK Constraint	none

## Example

```
var AccRendering = caph.wui.engine.rendering;
var basePage = new AccRendering.BasePage();

var element = document.createElement('div');
element.style.width = '100px';
element.style.height = '100px';
element.style.background = '#00AAAA';

var obj = new AccRendering.CssObject(element);
basePage.add(obj);

obj.setZScale(1.5);

var renderer = new AccRendering.CssRender();
renderer.render(basePage);

var AccTween = caph.wui.engine.tween;
var layer = new AccTween.Layer();
layer.add(obj, {translateX:200}, {duration: 2000});
layer.add(obj, {rotateX:10*(Math.PI/180)}, {duration: 1000});

var timeline = new AccTween.Timeline();
timeline.add('first', layer);
timeline.start(renderer, basePage);
```

# Timeline

## Description

The constructor of Timeline component, in order to create Timeline object.

Parameters	<ul style="list-style-type: none"><li>■Void</li></ul>
Return	<ul style="list-style-type: none"><li>■Object<ul style="list-style-type: none"><li>- instance of Timeline</li></ul></li></ul>
Emulator Support	Y
SDK Constraint	none

## Example

```
var AccRendering = caph.wui.engine.rendering;
var basePage = new AccRendering.BasePage();

var element = document.createElement('div');
element.style.width = '100px';
element.style.height = '100px';
element.style.background = '#00AAAA';

var obj = new AccRendering.CssObject(element);
basePage.add(obj);

obj.setZScale(1.5);

var renderer = new AccRendering.CssRenderer();
renderer.render(basePage);

var AccTween = caph.wui.engine.tween;
var layer = new AccTween.Layer();
layer.add(obj, {translateX:200}, {duration: 2000});
layer.add(obj, {rotateX:10*(Math.PI/180)}, {duration: 1000});

var timeline = new AccTween.Timeline();
timeline.add('first', layer);
timeline.start(renderer, basePage);
```

## pause

### Description

Timeline 'pause' method allows you to pause timeline animation.

Parameters	■Void
Return	■Void
Emulator Support	Y
SDK Constraint	none

### Example

```
var AccRendering = caph.wui.engine.rendering;
var basePage = new AccRendering.BasePage();

var element = document.createElement('div');
element.style.width = '100px';
element.style.height = '100px';
element.style.background = '#00AAAA';

var obj = new AccRendering.CssObject(element);
basePage.add(obj);

obj.setZScale(1.5);

var renderer = new AccRendering.CssRenderer();
renderer.render(basePage);

var AccTween = caph.wui.engine.tween;
var layer = new AccTween.Layer();
layer.add(obj, {translateX:200}, {duration: 2000});
layer.add(obj, {rotateX:10*(Math.PI/180)}, {duration: 1000});

var timeline = new AccTween.Timeline();
timeline.add('first', layer);
timeline.start(renderer, basePage);

setTimeout(function() {
    timeline.pause();
}, 500);
```

## resume

Description	
Timeline 'resume' method allows you to resume timeline animation.	
Parameters	■Void
Return	■Void
Emulator Support	Y
SDK Constraint	none
Example	
<pre> var AccRendering = caph.wui.engine.rendering; var basePage = new AccRendering.BasePage();  var element = document.createElement('div'); element.style.width = '100px'; element.style.height = '100px'; element.style.background = '#00AAAA';  var obj = new AccRendering.CssObject(element); basePage.add(obj);  obj.setZScale(1.5);  var renderer = new AccRendering.CssRenderrer(); renderer.render(basePage);  var AccTween = caph.wui.engine.tween; var layer = new AccTween.Layer(); layer.add(obj, {translateX:200}, {duration: 2000}); layer.add(obj, {rotateX:10*(Math.PI/180)}, {duration: 1000});  var timeline = new AccTween.Timeline(); timeline.add('first', layer); timeline.start(renderer, basePage);  setTimeout(function() {     timeline.pause(); }, 500);  setTimeout(function() {     timeline.resum(); }, 1500); </pre>	
<b>stop</b>	
Description	
Timeline 'stop' method allows you to stop timeline animation.	
Parameters	■Void
Return	■Void
Emulator Support	Y
SDK Constraint	none
Example	

```
var AccRendering = caph.wui.engine.rendering;
var basePage = new AccRendering.BasePage();

var element = document.createElement('div');
element.style.width = '100px';
element.style.height = '100px';
element.style.background = '#00AAAA';

var obj = new AccRendering.CssObject(element);
basePage.add(obj);

obj.setZScale(1.5);

var renderer = new AccRendering.CssRenderer();
renderer.render(basePage);

var AccTween = caph.wui.engine.tween;
var layer = new AccTween.Layer();
layer.add(obj, {translateX:200}, {duration: 2000});
layer.add(obj, {rotateX:10*(Math.PI/180)}, {duration: 1000});

var timeline = new AccTween.Timeline();
timeline.add('first', layer);
timeline.start(renderer, basePage);

setTimeout(function() {
    timeline.stop();
}, 500);
```