

The background of the slide features a light gray globe with a grid of latitude and longitude lines. On the left side, there is a dark gray rectangular area with a white and gray pixelated pattern that tapers off to the right.

Animation Clip XML Scrip Tutorial

1.1.0.121.6, 2013.04.30



An Animation Clip Script Software Programming Guides

Overview

In this document, we will guide and teach user how to editing the XML script file of animation clip engine in QCAP SDK.

User can get several samples of animation clip script files from SDK sample folder.

For Examples:

EXAMPLE.COOL.QUAD.XML,

EXAMPLE.FADEOUT.XML,

EXAMPLE.PIP.XML,

EXAMPLE.POP.XML,

EXAMPLE.QUAD.XML

Animation Clip Script Workflow in Software View

Programming Step	Related Programming
Set Total Frames in Animation Clip	<pre><animation-clip frames = "60"> </animation-clip></pre>
Set Output Format in Animation Clip	<pre><stage width = "1920" height = "1080" colorspace = "YV12" bkcolor = "0 0 0"/></pre>
Create Sprites	<pre><sprites> <sprite name = "image-0" id = "0" z-order = "0"/> <sprite ... /> </sprites></pre>
Set Transform Animation for Sprite	<pre><transform name = "track-0" sprite = "image-0"> <keyframe frame = "1" position = "0 0" scale = "960 540"/> <keyframe frame = "60" position = "0 0" scale = "1920 1080"/> </transform></pre>
Set Alpha Animation for Sprite	<pre><alpha name = "track-1" sprite = "image-0"> <keyframe frame = "1" alpha = "1"/> <keyframe frame = "60" alpha = "0"/> </alpha></pre>



Step 1 Set Total Frames in Animation Clip

```
<animation-clip frames = "60">
</animation-clip >
```

Parameter

Name	Description
frames	Specify the total number of animation-script frames

Introduction

User can use this function to set the total number of animation-script frames, for example, if user set 300 frames, the animation script will be 300 frames to display animation effect.

Example

```
<animation-clip frames = "60">

</animation-clip >
```



Step 2 Set Output Format in Animation Clip

```
<stage width = "1920" height = "1080" colorspace = "YV12" bkcolor = "0 0 0"/>
```

Parameter

Name	Description
width	Specify the width of the output frame buffer
height	Specify the height of the output frame buffer
colorspace	Specify the color space type of the output frame buffer. Currentlly, we support YV12 format only.
bkcolor	Specify the background color in the clip. Here, “0 0 0” is black color and “1 1 1” is white color.

Introduction

User can use this function to set animation clip script parameters

Example

```
<stage width = "1920" height = "1080" colorspace = "YV12" bkcolor = "0 0 0"/>
```



Step 3 Create Sprites

```
<sprite name = "image-0" id = "0" z-order = "0"/>
```

Parameter

Name	Description
name	Specify the friendly name of sprite
id	Specify the id of sprite
z-order	Specify the order between all sprites, Here, 0 is bottom most.

Introduction

User can use this function to create several channels sprite.

Example

```
<sprites>
  <sprite name = "image-0" id = "0" z-order = "0"/>
  <sprite name = "image-1" id = "1" z-order = "1"/>
  <sprite name = "image-2" id = "2" z-order = "2"/>
  <sprite name = "image-3" id = "3" z-order = "3"/>
</sprites>
```



Step 4 Set Transform Animation for Sprite

```
<transform name = "track-0" sprite = "image-0">  
  <keyframe frame = "1" position = "0 0" scale = "960 540"/>  
</transform >
```

Parameter

Name	Description
transform → name	Specify the name of this transform
transform → sprite	Specify the corresponded sprite of this transform. It must be one sprite name.
keyframe → frame	Specify the keyframe index for this transform
keyframe → position	Specify the left & top position of the sprite window in this frame
keyframe → scale	Specify the scale size of the sprite window in this frame

Introduction

The tag is one kind of animation effect in SDK and it is optional setting.

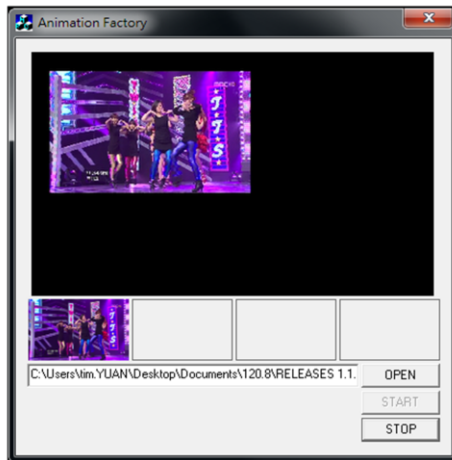
User can use this function to set the transform animation for one sprite on any keyframe.

Between both keyframes, we will auto generate the interpolated position and scale size by one spline algorithm.

Example

```
<transform name = "track-0" sprite = "image-0">  
  <keyframe frame = "1" position = "0 0" scale = "960 540"/>  
  <keyframe frame = "60" position = "500 500" scale = "960 540"/>  
</transform>
```

Keyframe frame =1



Keyframe frame =60





Step 5 Set Alpha Animation for Sprite

```
<alpha name = "track-4" sprite = "image-0">  
  <keyframe frame = "1" alpha = "1"/>  
</alpha>
```

Parameter

Name	Description
alpha → name	Specify the name of this transform
alpha → sprite	Specify the corresponded sprite of this transform. It must be one sprite name.
keyframe → frame	Specify the animation-script frames
keyframe → alpha	Specify the alpha ratio, the range of 0 to 1

Introduction

The tag is one kind of animation effect in SDK and it is optional setting.

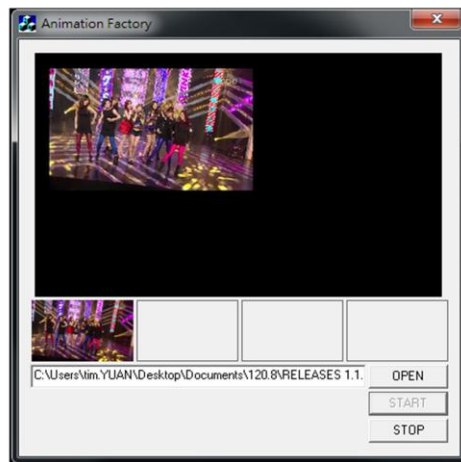
User can use this function to set the alpha animation for one sprite on any keyframe.

Between both keyframes, we will auto generate the interpolated alpha value by one linear algorithm.

Example

```
<alpha name = "track-4" sprite = "image-0">  
  <keyframe frame = "1" alpha = "1"/>  
  <keyframe frame = "60" alpha = "0.5"/>  
</alpha>
```

Keyframe frame =1



Keyframe frame =60

