Configuring and Loading an Animation

Candera Animation Concept

The following key concepts are required to run animations in a Candera application:

- Candera::Animation::AnimationPlayer provides the control interfaces (use Candera::Animation::AnimationGroupPlayer for animation groups)
- Candera::Animation::AnimationTimeDispatcher dispatches the current world time to animations; animations can also query the current world time from the dispatcher
- Candera::Animation::AnimationKeyframeSequence configures proper animation values for each time point of an animation.
- Candera::Animation::InterpolationStrategy specifies for a key frame sequence, how values between several key frames shall be calculated.
- Candera::Animation::AnimationPropertySetter applies animation values to animated properties

In SceneComposer, animations can be configured in the AnimationDesign view:

- Create a new animation - New Animation in SceneComposer User Manual
- Select a node property to animate - Add Animated Property in SceneComposer User Manual
- Specify the key frame sequence including property values and interpolation strategy - Animation Values in SceneComposer User Manual

It is also possible to import an animation to SceneComposer from a content generation tool via FBX format - How to Import Resources in SceneComposer User Manual

Configuring Animation Player

In the Player or in an application, the animation can be retrieved from the generated asset by specifying its Candera name (e.g. *MyModule#Animations#Animation*).

```
    AssetProvider* assetProvider = GetAssetProvider();
    m_animPlayer = assetProvider->GetAnimation(m_animName);
```

> In SceneComposer the animation can be retrieved from AssetProvider only if it was previously loaded in the scene. A better way to access it directly is to define it as a widget property.

```
                // Define Animation property
                CdaProperty(Animation,Candera::Animation::AnimationPlayer::SharedPointer, GetAni
                    CdaDescription("Animation")
                CdaPropertyEnd()
                // End Define Animation property
```

Next, as already explained in Initializing AssetLoader and Animations, an instance of Candera::Animation::AnimationTimeDispatcher is needed to provide current world time to animations.

For this, the new animation player must be added to the Candera::Animation::AnimationTimeDispatcher instance maintained by the application.

```
        // Add player to time dispatcher

        Animation::AnimationTimeDispatcher::SharedPointer timeDispatcher = GetAnimationTimeDispa
        if (timeDispatcher == 0) {
            return;
        }
        static_cast<void>(timeDispatcher->AddPlayer(m_animPlayer));

        // End Add player to time dispatcher
```

Now the animation player is ready to be used.

Revision #10
Created 2023-02-22 01:48:52 UTC by Tsuyoshi.Kato
Updated 2024-11-07 01:14:37 UTC by Tsuyoshi.Kato