

Re: Animationset

Source:

<http://www.tech-archive.net/Archive/Development/microsoft.public.win32.programmer.directx.graphics/2004-10/048>

From: Spudeister (*gary_at_mr-gamemaker.com*)

Date: 10/26/04

Date: Tue, 26 Oct 2004 01:25:18 +0100

OK, Well you have to be careful with your naming here.

An animation is a set of keyframes for a given frame in the hierarchy. Therefore, if you 'Animation Sequences' are merged into a single animation set, there will be one animation in the X file for every frame that is animated by either of the sequences. So for example, if you animation set animated 5 frames in the hierarchy, there will be five animations in the set.

Now, in your case, because the 'animation' for each frame may contain keyframe pertaining to both animation sequences, they will be defined following each other. You need to find the timestamp at which the first sequence ends and the second one starts. These timestamps are defined in ticks, so you will need to convert between seconds and ticks to find this cross over point. You can use the `ID3DXKeyframeAnimationSet::GetSourceTicksPerSecond` method to find the ratio between actual seconds and the tick value used by the timestamps in your animation. In otherwords, it tells you how many ticks per second are being processed when your animation is playing.

You can then use this to do one of two things.

1) You can set key events so that when the first sequence ends you rest the track position back to its starting position so the first animation sequence will loop. If you do not wish to set a key event for this (which uses the controller global timeline) you could have you application poll for global time and apply the track position chance once that position is reached. When you wish to play the second animation sequence, you can once again set the track position to then start of the second sequence and make that loop round also when the sequence reaches its end.

1) Failing that, you can do what I usually do. I find the crossover point where the second sequence starts, and copy all the keyframes into a new animation set. I then do the same again for the keyframes in the second sequence. I then release the original animation set and register my two new ones with the controller. Essentially, I split the combined animation set into multiple sets so I can set and play each sequence or assign them to

multiple tracks and blend them together.

Whichever you choose, it does rely on you finding out then lengths of each sequence so you know when one ends and another begins. If you developed the asset yourself then this will not be a problem. However, if you are using a 3rd party asset, you will have to determine this the hard way.

It might be worth you writing a little tool with a slider bar that allows you to play the animation frame by frame. As soon as you slide the bar to a position where one sequence ends, you could have a button that simply rips all the keyframes out of the current animation set being used to render the hierarchy and copy it into a new set.

Hope this helps

"Jack" <jl@knight.com> wrote in message

news:eajRYJfuEHA.1184@TK2MSFTNGP10.phx.gbl...

> *The source of the problem is associated with this line of code*

> *m_pAnimController->GetAnimationSet(i, &pSet);*

>

> *As GetAnimationSet is an API of DirectX, if I don't name each segment*

> *properly, how do i refer to which animation I am to access?*

>

> *In addition, Milkshape, probably not good to mention that here, has a naming*

> *textbox on the .X Exporter.... I have asked JT that one file can only store*

> *one animation. A few days later, I found a skinnedmesh on the web which is*

> *called zombie.X which only uses one file for animation plus the mesh. I'm*

> *just wondering how I can do things like this without splitting the mesh*

> *into 10 files for 10 animations or poses and each has an animation name that*

> *I can use in the program..... Thanks*

> *Jack*

>

>

> "Spudeister" <gary@mr-gamemaker.com> wrote in message

> news:#EXg4OHuEHA.200@TK2MSFTNGP11.phx.gbl...

>> *What do you mean by segments? Animations in D3DX are defined in keyframes*

>> *grouped in 'Animations' inside animation sets, each key frame has a time*

>> *stamp that is defined in ticks. When you say 1 -20 , what do you mean? I*

> *to*

>> *20 what?*

>>

>> *Also, do you have these sequences in a single D3DXKeyframedAnimatonSet it*

>> *looks like this is not the case? If so then you will need to determine the*

>> *time at which a sequence you wish to play starts and set the track*

> *position*

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> > *of the track to which the set is assigned to jump to that location when*
> > *you*
> > *wish to play that sequence.*
> >
> > *You may have to convert the timestamps of the first keyframes in each*
> > *sequence (in ticks) into seconds initially to determine the correct*
> > *value*
> > *(in seconds) to pass in as the new track position.*
> >
> > *Can't really be any more help without a more detailed explanation of*
> > *your*
> > *problem*
> >
> > *"Jacky Luk" <jl@knight.com> wrote in message*
> > *news:OqYYzL3tEHA.3932@TK2MSFTNGP10.phx.gbl...*
> > > *I have a track like this*
> > > *1->20 walk*
> > > *21->30 pump*
> > >
> > > *This animation segments are fed to direct3d*
> > > *My question is how do you specify (SetTrackDesc??)*
> > > *which segments belong to walk and which belong to pump? Thanks*
> > > *Jack*
> > >
> > >
> >
> >
>
>