Dreaminator Documentation

Overview

Dreaminator is a "tweening" program that reads Ray Dream Designer files, compares them, and creates a series of animation frames in Ray Dream Designer format, interpolating the positions and orientations of objects found to have moved between key frames. The new frames can then be rendered with Ray Dream Designer, and made into a quicktime movie with a utility such as MooVer.

Dreaminator is shareware. If you keep it and use it regularly, please send $20 registration fee to:

> Larry Tannenbaum
> 2206 W. Porter Ave.
> Fullerton CA 92633

Please note that there are <u>no disabled features or delayed buttons</u> to annoy you. Your honesty is all that counts.

If you have questions, suggestions, constructive criticism or complaints, please contact me on AOL as tall tree, or through the internet at talltree@aol.com (I was going to put a period there, to end the sentence, but I didn't want to confuse anyone with an extra period in my internet address. Putting this little note here solved that problem.).

Special Features:

•Dreaminator can produce several types of motion:
> ease out (objects start slowly) along selected axes
> ease in (objects slow to a stop) along selected axes
> ease out & in (objects start slowly and slow to a stop)
> gravitational acceleration along selected axes
> gravitational deceleration along selected axes
> alternating gravitational acceleration & deceleration along selected axes, to

simulate such   things as a bouncing ball, a swinging pendulum, etc.
•Because you can select along which axes the special type of motion will take place, you can mix uniform (constant-speed) motion with the special motion.
•Dreaminator handles up to 32 key frames at a time. It utilizes a drag & drop interface: select key frames in the Finder, and drag & drop them onto the Dreaminator icon.

Quick Start

Dreaminator uses a drag & drop interface. Select your Ray Dream Designer key frames in the finder, and drag them onto the Dreaminator icon. In the key frame list, check that the Finder passed your key frames in the order that you wanted. Enter the number of frames per key frame, a name for your animation or accept the default, select the motion

you desire and any options that go with it, then hit Enter. Your animation frames will be created, and saved where you specify.

Limitations

Key Frames: Dreaminator can operate on a maximum of 32 key frames at one time.

Memory Requirements: At this time, Dreaminator requires two files at a time to be completely in memory. These files are the two key frames it is comparing. Therefore, if you are getting memory errors, check the memory allocation in Dreaminator's Get Info box in the finder. Allow approximately 2 times the size of a key frame, plus an extra 500k or so for Dreaminator's data structures and such.

Frame Numbers: Frame numbers, i.e. the numbers that Dreaminator creates and tags onto the end of the animation frame name, must be in the range of 0000 to 9999. The program prevents you from specifying conditions that would cause the numbers to exceed 9999, because they would wrap around and start over at 0000, which could cause problems with frame order when dropping the frames onto Moover or some other PICT to movie application.

Number of moving objects: Dreaminator is limited to moving 32 objects between any two key frames. Remember that a complex object, made up of many simple objects put into a group, counts as only one moving object, if the simple objects are moved in unison by moving the group. Dreaminator will complain if it finds more than 32 differences between any two key frames.

Rotating Objects: If an object is rotated more than 180 degrees between two key frames, Dreaminator will rotate the object the shorter distance, in the opposite direction. To achieve rotations of more than 180 degrees, it is best to create more key frames in which the rotation is kept to less than 180 degrees between any two. Rotations of less than about 2 degrees between key frames will be ignored.

System 7: required

Explanation of Features

Sequences
Dreaminator facilitates creating animations with more complex motions, that require you to work on only a few key frames at a time. I call this a sequence, because later you'll assemble the frames created from several runs into one animation. When you hit the Begin button, its only effect is to check the Exclude Final Key Frame box, which you could do yourself, but it seemed incomplete to have only Continue and End buttons. The Continue button restores the number of frames and the animation name, which Dreaminator remembers from the previous run. It also sets the beginning frame number to one more than the last frame written, and checks the Exclude Final Key Frame box.

The End button does the same thing as the Continue button, except it unchecks the Exclude Final Key Frame box.

Checking the Exclude Final Key Frame box prevents Dreaminator from writing the final key frame to the animation, so assembling an animation from several runs of the program won't result in duplicate frames where two runs have been joined. Remember to check this box for each run of the program that will be part of a sequence, except the last run, or use the sequence buttons described in the previous paragraph.

Ease Out, Ease In

There are two ways to decrease the apparent speed of an object, while keeping the frame rate constant: either decrease the distance traveled, or increase the number of frames used to travel the same distance. Both methods can be done with Dreaminator. Checking the Add Frames to Match Speed box will add the correct number of frames to the first group of frames (easeOut), the last group (easeIn), or both groups (easeOut & EaseIn), so there will be no glitch in an object's motion. Use this option when creating a multi-key frame animation, and an object travels the same distance between all key frames.

Alternatively, you can set your objects to move less distance between ease in or ease out key frames. Then you would leave Add Frames to Match Speed unchecked. Between your ease in or ease out key frames, your object should move 0.63662 times the distance it moves between constant speed frames, to achieve glitchless motion. If this is not clear, and it wouldn't surprise me if it wasn't, email me (talltree@aol.com), and I'll try to explain it better.

If your animation uses only two key frames, then the Add Frames to Match Speed box is superfluous, but it is still enabled, to allow you the most flexibility.

Gravitational Acceleration and Deceleration

Gravitational acceleration and deceleration are actually another form of ease in and ease out, but there is no "Add Frames" feature available to match the speed with constant speed frames. You can figure it out, or maybe I'll get around to it.

Semi-Legal Stuff

This program and documentation are copyright Larry Tannenbaum. All rights reserved. I did my best to ensure that the program does what I claim it does, but, like seemingly all software manufacturers, I don't have the guts to guarantee my program either.

This program may not be distributed in any collection for which a fee is charged, without my express, written consent.