# DATACAD LLC

TECHNICAL BULLETIN

Creating a Simple Animation

01. Create a series of views which represent the key points of the animation path. These views are known as "key frames". The animator will generate the frames required between these views to make the entire animation sequence. Generally, four frames are the minimum required to create a simple loop around your building.

02. From the Edit Menu, choose Camera Animation.
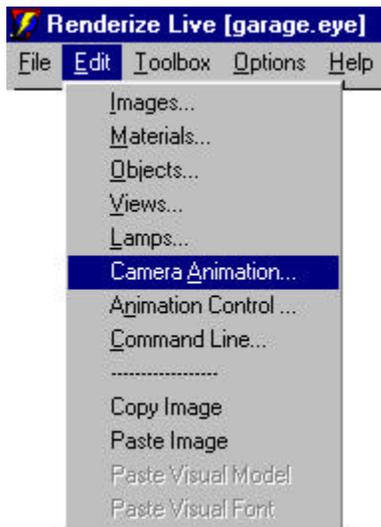
03. The Animation dialog box is displayed. Type a name for your animation in the title box, replacing the current name of "untitled".

SETTING THE ANIMATION LENGTH

04. Enter the number of frames for your animation in the FRAME CONTROL box. The more frames your animation contains the more fluid the motion will appear, but it will take longer to process and the file will be much larger in size.
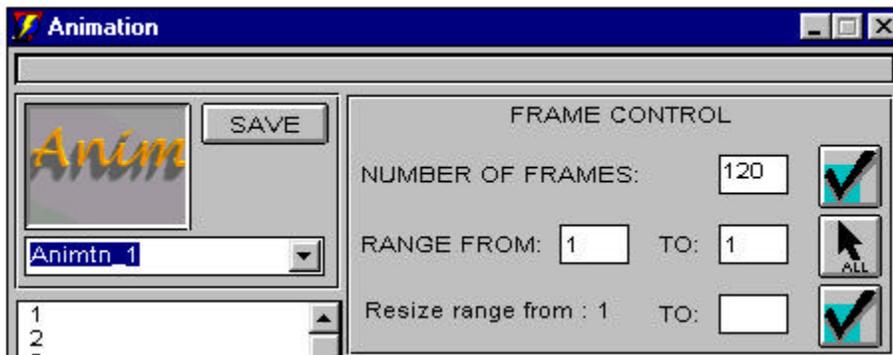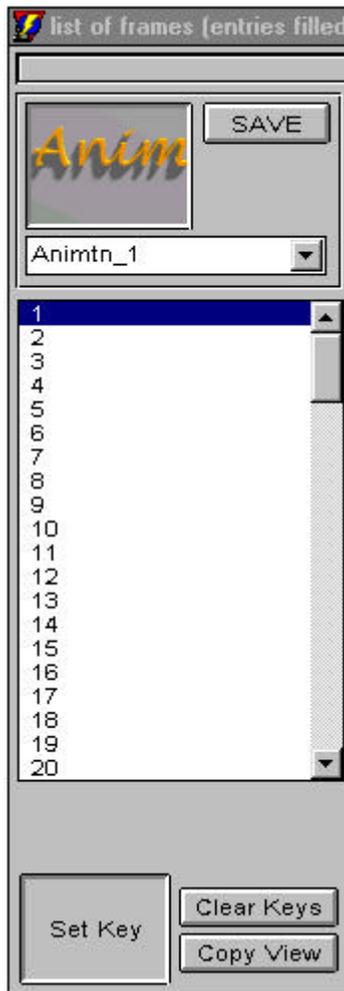
05. After entering the number of frames in the Frame Control box, click on the check mark icon. The number of frames you specified are added to the "List of Frames" box.

06. Click on the Save button in the upper left corner of the Animation.
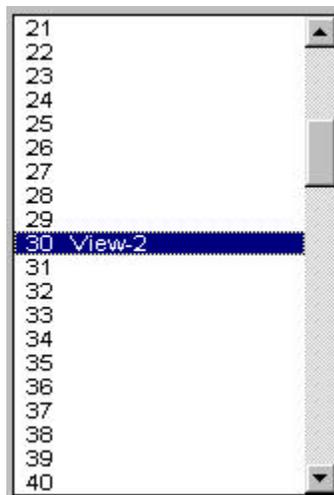
SETTING THE KEY FRAMES

07. Click on the "1" in the List of Frames box.

08. Drag and drop your first key frame view into the Set Key well at the lower left corner of the Animation dialog box. The name of the view appears after the numeral 1, indicating the first frame in the animation.

09. Click on the number in the List of Frames dialog box, indicating the position of the next key frame. In this example, a key frame will be placed every 30 frames.

10. Drag and drop the second view to the Set Key well. In our example the key frames are set as follows:

1   View-1

30   View-2

60   View-3

90   View-4

120   View-1

Notice the sequence begins and ends at view-1, creating a full circuit around the building.

11. Save your animation sequence by clicking the Save button in the upper left corner of the Animation dialog box.

GENERATING A TEST ANIMATION

After an animation is set up, it is a good idea to produce a quick, low resolution test animation to make sure all the key frames are set properly, and the animation flows acceptably without any jerky transitions between frames. It is very disappointing to find that your animation missed a key frame after waiting several hours for it to process!

12. Click on the All button in the Frame Control dialog box. All the frames in the List of Frames dialog box should appear blue, indicating that they are all selected.
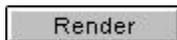

13. Uncheck the Ease In/Out option in the Splines box.

14. Disable the shadow, anti-aliasing, and bitmap options from the main Renderize menu. This will provide for a quicker calculation time of our test animation.
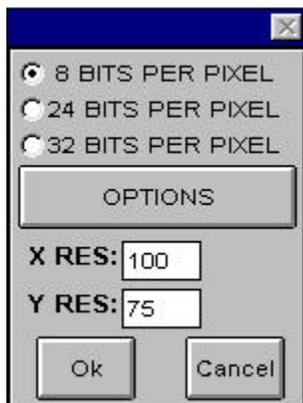

15. Click the Render button.

16. The Save As dialog box appears. The Save In folder should be set to the Tutor directory. Enter the name **Test-1** for the animation in the File Name box.
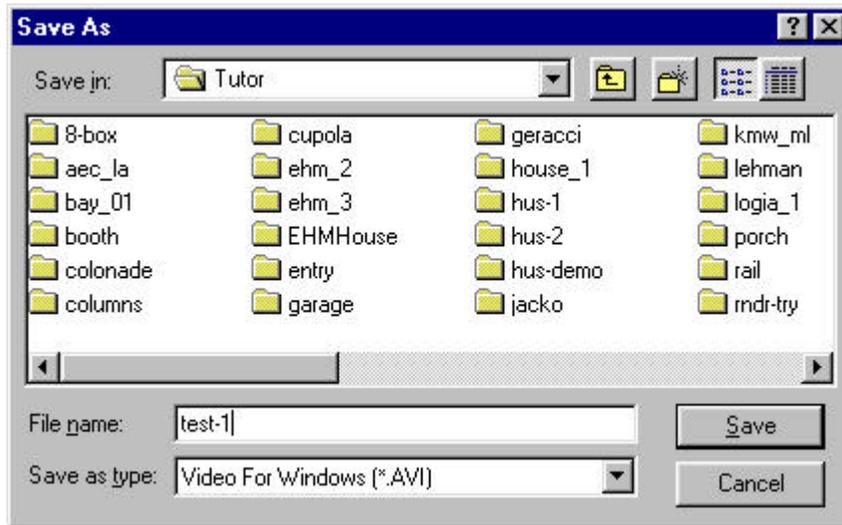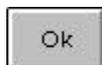

17. Click the Save button.

18. The animation resolution and color-depth dialog box appears. Choose 8-bit and change the X-RES setting to **100**.

19. Click OK.

20. Your animation is calculated and saved to a file with an AVI extension. This may take several minutes. The progress of the animation is displayed in the Windows menu bar at the top of the screen.

21. When the calculation is complete, minimize Renderize and locate the file in Windows Explorer.

22. To play the animation, double-click on the AVI file. Your animation is played back utilizing the Windows Media Player, included on all Windows 95/98 and NT systems.

23. If you are satisfied with the test animation, proceed on to the final animation. If the test animation is not performing as you desired, re-examine your key frame placement. Check to see that the views logically proceed from one to the other. If sections of your animation appear jerky, adding additional intermediate views can smooth them out. Adding additional frames between these views will also smooth out the animation. Don't forget to save any changes you make to the animation sequence.


See your Renderize manual for advanced features for editing the animation spline path and inserting frames between views. If you need to substantially change your animation, starting over from the beginning with additional views and increased frames is a simpler alternative to editing the existing one.

RENDERING THE FINAL ANIMATION

24. Maximize Renderize, and enable the shadow, anti-aliasing, and bitmap enhancement calculation options.
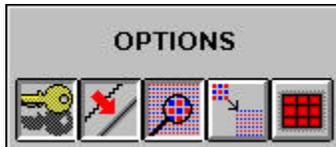
25. Check to see that all frames are still selected in the List of Frames dialog box, and click Render once again.

26. As in step 15, provide a filename for the animation, such as **final-1.avi**.

27. Click the Save button.

28. The animation resolution and color-depth dialog appears. Choose 24 or 32-bit and change the X-RES setting to a higher value.
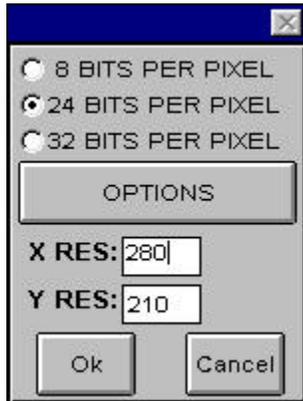

24-bit color depth at a resolution of 200 or greater is sufficient for most animations, and will play acceptably fast on most CADD-capable computer systems. Setting the resolution to a higher number like 600, 800 or 1280 will allow for full screen animation playback but will require an exponentially greater amount of calculation time and an animation-specific graphics card to play the animation acceptably.

29. Click OK.
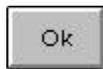
30. Your animation is calculated and saved to a file with an AVI extension. This may take several minutes. The progress of the animation is displayed in the Windows menu bar at the top of the screen.

31. When the calculation is complete, minimize Renderize and locate the file in Windows Explorer.

To play the animation, double-click on the AVI file. Your animation is complete!