User Manual

1. Description

This demo program generates sequence of emerging images from a 3D keyframe animation. While the individual frame reveals meaningless information to the observers, an animating figure can be perceived when the frames are presented as a video sequence. Please refer paper (section "Extensions and discussion", page 7) for more details.

Note: All related components (dlls) are used for academic purpose only. Please do not distribute anyone of them for other non- academic purposes.

2. About UI & buttons

The following images illustrate the user interface and functions of buttons:

a. Camera manipulation:
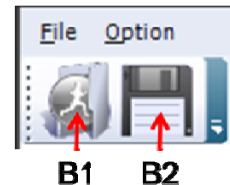   Use **left mouse button** to rotate the scene.
   Use **middle mouse button** to move the scene.
   Scroll the **mouse wheel** to zoom in/out.

b. File open & save buttons:
   B1: Open a 3D animation.
   B2: Save frames of the animation to image files(bmp/eps).

c. Animation player toolbar:

   B3: Rewind the animation by one frame.
   B4: Go to the first frame of the animation.
   B5: Play the animation.
   B6: Record the animation. When the button is pressed, the program will save the scene (normal/emerging rendering) into a image file (bmp/eps).
   B7: Go to the last frame of the animation.
   B8: Forward the animation by one frame.
   B9: Open the parameter dialog.

3. How to use the program?

Step1: Unzip the EV.zip and execute the "EV.exe". Click **B1** button and chose an animation config. file (*.cfg) from the open file dialog. The format of cfg file is as follows:

In this example, the program will read the following keyframe models, **horse_run_0.obj, horse_run_2.obj, …, horse_run_64.obj, horse_run_66.obj**, and read the camera setting file "**horse_run.view**".
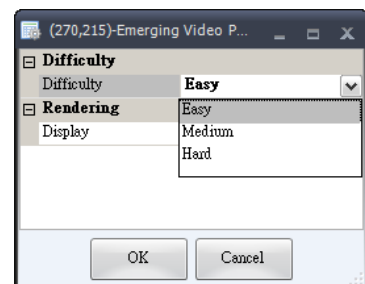

Note that all obj files and view file must be in the same dir as cfg file.

Step2: Once the animation is ready (the animation player becomes enabled), click **B2** button to open a save file dialog and type the name of saved image file, e.g. result.eps.

Step3: After the emerging rendering of the first frame is shown, click **B5** to play the animation. The emerging image will be generated and saved into the target folder when the animation is moving on. The folder will contain two kinds of image files. One is the bmp file which is normal rendering of the scene and the other is the eps file which is emerging image of each frame. (Please use **Adobe Illustrator or GSView** to open eps file).
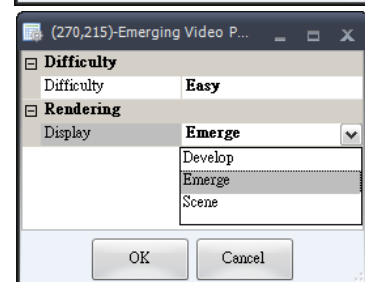
Difficulty control:
Click **B9** button to open parameter dialog. In the "Difficulty" row, click the combo list to switch between difficulty levels.

Rendering control:
Similarly, in the "Display" row, chose "Emerge" to display emerging rendering and "Scene" to display normal rendering.

Enjoy the Emergence!