Abstract:
Rendering and animating numerous articulated characters interactively is challenging in computer graphics. Specific hardware systems may be needed. However, by using the temporal coherence characteristics of the articulated characters in an animation, changes from frame to frame remain small, and display rate can be improved using a software approach using impostors. The use of impostors to replace the actual geometry had been shown in many computer graphics system in the form of billboards but most likely for static objects. However, impostors can also be applied to the dynamic objects such as animated articulated characters to improve the display rate.

Principle:
The principle of the animated impostors is that the posture changes of an articulated character remain small from frame to frame. The human brain tends to reconstruct the missing data even only a few frames are seen. Thus, the motion of the articulated character still can be understood. By knowing this, rendering cost can be reduced by replacing the complex articulated character with an animated impostor.
Fast display of articulated characters using impostors

Impostor is a transparent polygon with opaque meaningful texture mapped image

- An software approach
- Image-based rendering technique
- Reduce the complexity of the scene
- Replace the complex 3D geometry by the 2D textured impostors
- Assume the impostors can be reused over several frames
- Refresh content of the impostors if needed

Factors for the refreshment of the impostors:

- Posture variation of the articulated characters
- Camera orientation with respect to articulated characters

Result:

- Display rate increase when number of refresh of the impostor decrease
- Visibility problem occur when using impostor