

Virtual Camera Movement with Particle Swarm Optimization and Local Regression

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Abstract – Manually placing and animating virtual camera in a dynamic virtual environment to generate computer animation is a complex and time-consuming process. For this reason, this paper proposes a method to take the sequential shot by gameplay, to determine the best camera placement candidates as an unorganized point set, to reconstruct a curve by the point set using local regression technique and to generate smooth camera movement based on those curves. Finally, the paper presents the application of this algorithm and it analyzes a number of problems in different dynamic virtual environments.

Keywords: Dynamic Environments, Gameplay, Virtual Camera, Virtual Cinematography
