

A Real-time Motion Capture System for 3-D Virtual Characters

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Abstract: Motion tracking method is being issued as essential part of the entertainment, medical, sports, education and industry with the development of 3-D virtual reality. Virtual human character in the digital animation and game application has been controlled by interfacing devices; mouse, joysticks, midi-slider, and so on. Those devices could not enable virtual human character to move smoothly and naturally. Furthermore, high-end human motion capture systems in commercial market are expensive and complicated. In this paper, we proposed a practical and fast motion capturing system consisting of optic sensors, and linked the data with 3-D game character with real time. The prototype experiment setup is successfully applied to a boxing game which requires very fast movement of human character.

Keywords: Motion, 3-D, Virtual Character, Virtual reality.