

基于深度传感器的远距增强现实注册技术研究

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摘要: 通过标定摄像头和 Kinect 传感器, 结合总体最小误差算法, 提出了基于深度传感器的跟踪注册技术, 以实现远距离无标记的跟踪注册. 实验验证了虚拟物体以不同距离在近景模式注册和远景模式注册中叠加的效果. 实验结果表明该技术比现有跟踪注册技术方便, 且更符合远距离增强现实应用, 具有很强的应用价值.

关键词: 增强现实; Kinect; 无标记跟踪注册; 远距离; 自然交互

The Research on the Long Distance of Marker-less Registration

Based on Depth Sensor in Augmented Reality

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Abstract: This paper collaborated with camera and Kinect hardware, combined with minimum error method, and proposed a registration technology based on depth sensor, and achieved long distance marker-less registration. Consequently, the experiment completed the virtual contents superposed in near mode and far mode. The results indicate the long distance marker-less registration is better than current registration, and prove this technology has very strong application value.

Key words: augmented reality; Kinect sensor; marker-less registration; long distance; natural interaction

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