

Abstract

Augmented Reality is a technology that support for visual augmentation, augmenting digital object in visualization. Some of AR research creating interaction using hands such as motion detection[9]. Gesture based[14], or tracking marker, not only using symbol[3] but also using colour[8]. That methods, having their strength and weakness, but overall the problem is the requirement of computation level. Occlusion Based method is one of interesting method in AR. In computation level, this method have a low level. But, its only support for two dimension level interaction, and need much marker for implement.

This final project instead of implementing Occlusion Based method in marker, it implemented on digital object in AR system for establishing low level computation. Using some marker that related to some digital object in purpose physical interaction for choosing and moving digital object can be implemented in realtime system.

Occlusion Based method be able for define interaction in chess game in AR system. Eventhough only support two dimension, it has good performance in accuration for defining the interaction and good frame per second value which value is 25 fps.

Keywords: *Augmented Reality, AR, Interaction, Occlusion, Occlusion Based, Multi Marker, Chess*