

Abstract

Nowadays, many condominium projects start their sales at very early stage prior construction phase. They present projects' information through a number of media, including mock-up room, still rendered image and animated video presentation. Even with computer aided design technology that helps architectural presentation, none of them can do interactive material selection and environment adjustment virtually. This research targets such software that has ability to evaluate, analyze and provide various alternative designs rather than using multiple software for each task of works.

Interactive virtual architectural space software not only helps architect presents architectural information for condominium project easily but also reduces complication and time consumption of producing multiple media. The end product can be presented on internet that allows both architects and their clients to understand the design more effectively anywhere anytime. Clients can learn and understand architects' works by imagine oneself through 3D virtual reality environment that presents room's interior decoration and outside view. This software can help clients who consider buying a condominium unit making decision based on accurate completed information and custom material specification that fit their needs.

This software consists of two major parts: interactive interface for virtual space development and real-time 3D rendering engine development. These parts link to condominium's information database that provide physical appearance and financial information that are flexible and adjustable to fit various conditions of various projects. This software offers material selection for interior design of condominium along with exterior environment and automatic cost estimation. This helps architects to convey their design message interactively and effectively.