Thesis Title Using 3-D CAD to Automate Construction Planning

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Abstract

Construction planning is regarded as one of the most important managerial tasks which is normally carried-out by experts. Realistic plans require a careful review of construction drawings and specification as well as other criteria and constraints of the project being considered. This study investigates the possibility of utilizing the computer graphic technology to automate construction planning process. A computer program called 3-D CAD CM has been developed to generate construction activities and their logical relationships from architectural drawings.

A widely known computer graphic software has been used in developing the proposed software. It can interface with the most widely used project management software system. In 3-D CAD CM, the status of a project is depicted in the form of graphic model. This enhances the presentation resulting from project planning and scheduling at any timeframe. The software employs the object-based programming technique which facilities effective data gathering and processing. This study has demonstrated the way in which project managers can benefit from utilizing data generated in the design phase.

Keywords : Construction Planning / Computer Graphic / Object-Base Programming / Data Generate in Design Phase