

Issues on Innovative Descriptive Methods

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Abstract:

A proliferation of computer aids in building design offices has been witnessed in recent years. Many of these aids merely serve to automate the more mundane and time-consuming design office routines. Thus, in an attempt to streamline the design process, efforts have been made, and continue to be made, to produce Integrated Computer-Aided Design (ICAD) systems. However, difficulties in implementing these systems mean that research into ICAD remains as fundamentally necessary today as it was twenty years ago. This paper was produced in an effort to aid those interested in the area of CAD research, specifically software developers and CAD researchers. It provides a summary of existing and prototype integrated CAD systems and database structures for construction information and shows the evolution of these programs and databases. It also identifies short-comings of some systems and makes recommendations for potential courses of action for researchers and software developers.

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Dana Vanier, B.Eng., P.Eng., is a Research Officer with the Institute for Research in Construction of the National Research Council of Canada. His areas of interest include Integrated Computer Aided Design and Geometric Modelling. Two other current projects include a standard on computer-aided design drafting for the construction industry and a benchmark procedure for evaluating automated drafting systems. He has been working in the CAD industry for eight years and his previous experience includes work with the CAD Centre of Public Works Canada and the Computer Aided Design Centre of Montreal's Concordia University. His professional experience includes 10 years with the Department of National Defense in the area of military engineering, principally construction, design and production engineering. His education background includes a Civil Engineering degree from the Royal Military College of Canada, and a post-graduate degree from the Centre for Building Studies, Concordia University. He is presently completing a doctorate at the School of Architecture, Universite' de Montreal.