

Issues on Integrated CAD

J. W. Ure and J. D. Wix

Abstract:

Integrated Computer Aided Design has historically, been a topic of interest to research workers who have progressed an intellectual idea which did not have the available technology to support it. It can now be argued that we are catching sight of hardware technology to support the software concepts of integrated design and practitioners in the industry are becoming interested in the possibilities. At the same time, the notion of integration is having to be expanded to encompass wider aspects of information technology and the development of standards.

1985 proved to be a fruitful year in progressing integrated computer aided design in the United Kingdom. A symposium on 'Building services in the year 2000 highlighted the need for a co-ordinated building model and produced a blueprint for action. An ad hoc group has continued meeting since the symposium to develop this blueprint further. A British Standards Committee was established to look at the representations of buildings and computers and to input to International Standards Organization work. The National Economic Development Organization initiative developed into a Data Exchange Technical Centre based on Leeds University and now has construction industry representation. There is a degree of common representation in the steering of these initiatives which allows a considerable degree of co-ordination.

The common reference for all of these initiatives is that they are driven by industry and not academia and consequently represent the opportunity to apply pressure on suppliers.

The intention of this presentation is to provide details of these UK initiatives.

Authors:

Jeff Wix studied at Newcastle-upon-Tyne Polytechnic and graduated in 1973 with a Diplomas in Technology in Mechanical and Environmental Engineering. He then spent 2 years in the offices of a heating and ventilating installation company. In 1975 he moved to design work with consulting engineers ultimately specializing in the co-ordination of design teams for large projects and the engineering of clean environments. In 1977 he became involved with the use of computers to assist with design calculations before moving to BSRIA in 1980 to carry out research on the application of computers in co-ordination, design and information transfer.

BSRIA established the Computer Centre in 1983 with Jeff Wix as its leader. The Centre has since grown to a staff of 8 concerned primarily with the application of computers in building services and expert systems development. Most recently he has been concerned with research on data exchange between computer systems and common methods of passing