

# Design Automation

## Computer Graphics

One of the landmarks in the history of computers is the arrival of direct man/machine communication by the use of cathode ray tube displays and light pens.

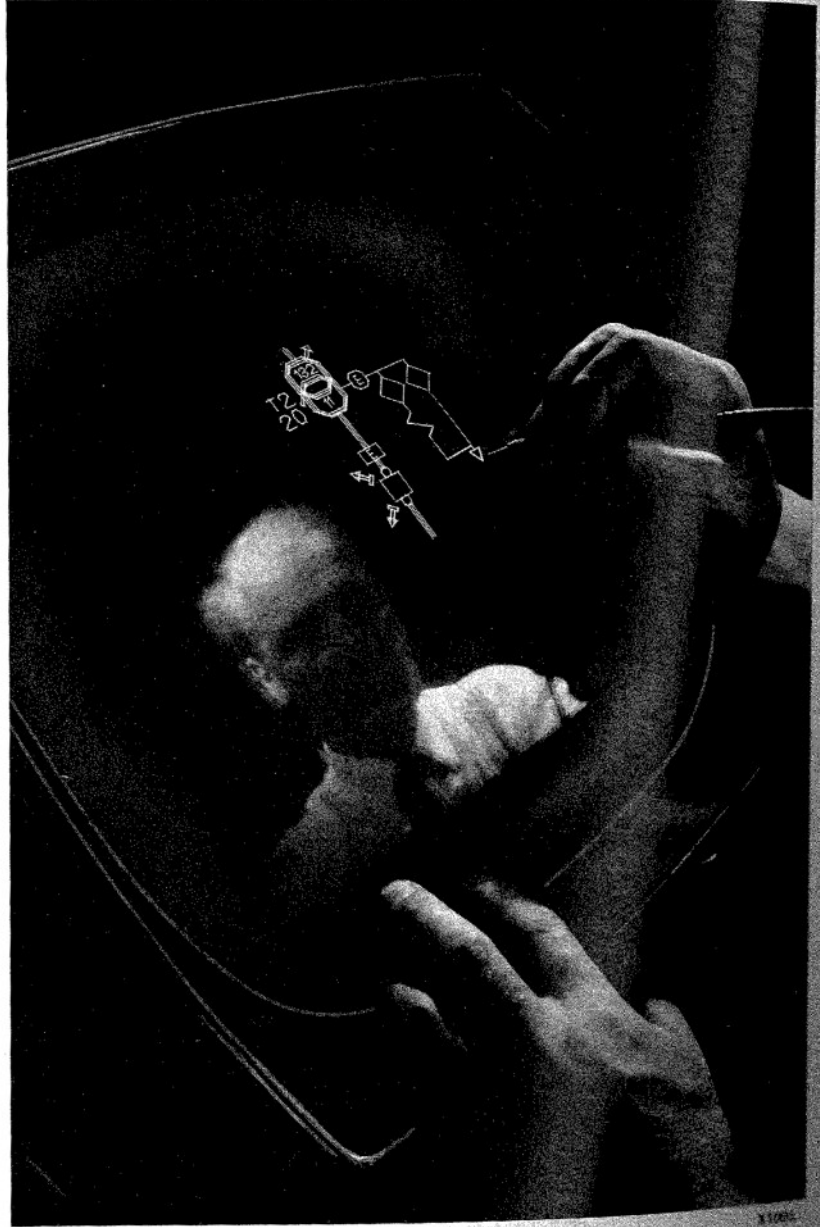
The computers greatest asset of being able to perform high speed calculations and data manipulation has not been used in many applications because of the difficulty in communication through the necessity of a complex language. Many potential users have been unable to spend the time necessary to learn and perfect the various languages which would enable them to use the computer, despite the recent advances in simplified computer programming languages. The computer graphic technique gives the operator a unique input/output device which allows the computer to understand and process information that he draws on the screen.

The Marconi Company were pioneers in the art of data display on cathode ray tubes and have used their experience and techniques to develop a very advanced computer graphic system of modular construction.

Programming allows the operator to use the screen, which has over a million addressable points, and a light pen or tracker ball in conjunction with the powerful high speed Myriad. The applications are numerous and the Automation Division have already entered many fields with this new technique. The system is flexible enough to form a small experimental system for research establishments or to form a large complex designed to automate drawing offices.

Architects can use the system to design houses, factories or bridges, while doctors can manipulate radiation beams and observe their cumulative effects. Mechanical engineers can design linkages and watch their movement in a dynamic form. Interacting graphics can be studied, altered and manipulated by researchers, designers and accountants—all totally without any programming experience. The data handling powers of the computer can give the user a vast catalogue of knowledge which can be called instantly to the screen. Thus a designer can examine, select or reject components that may be required for his particular design.

Programs have already been written for the Marconi Computer Graphical System and advanced software is now being developed to allow sophisticated manipulations on the screen. The Automation Division are keenly interested in discussing individual requirements of prospective users and welcome all enquiries.



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