BOOK REVIEW

Timothy J. McCarthy: AutoCAD Express
Springer-Verlag, London Limited 1990. 311 pp. 122 figs. 9 tabs.

AutoCAD is one of the most popular computer aided drafting packages for the personal computers. More than 200,000 copies of the program have been sold. AutoCAD can achieve anything that can be drawn on a drawing board. It gives more possibilities than replacing the drawing board, the drawing information can be simply edited and rapidly exchanged. It contains all tools for 2D CAD development. From the launch of Release 10 the 3D graphic utilities are incorporated. With AutoCAD your drawings become more than just black lines on a white sheet of paper. The AutoCAD drawing is a database of information. Some of this is really graphic information, but AutoCAD knows the length of every line on the drawing, what symbols and parts have been included on the drawing and it can output this information for bill of materials and cost analysis.

Due to its popularity AutoCAD has become the de facto industrial standard for PC-CAD. The other application program systems have usually interface conforming to the AutoCAD format.

The aim of McCarthy's book is to introduce AutoCAD users to effective CAD drawing techniques. The author demonstrates the AutoCAD drafting possibilities through structured exercises.

The AutoCAD Express can be recommended for new users as it covers the program from the very basics right to advanced techniques. Occasional users can find it a useful and quick refresher, while seasoned users can discover novel aspects of the old commands. The book describes not only the commands, but presents the application of these with many examples. The exercises of the book follow each other logically along a well defined learning process. Each chapter represents a stage of this process. To overcome the sheer size of the AutoCAD program and the number of the facilities available, the author directs the reader through the most appropriate path to complete the drawing example.

The contents of the book are: What is AutoCAD? — Creating a drawing. — Cursor and display control. — Drawing and editing. — Constructive editing. — Super-entities. — Advanced drawing and dimensioning. — Adding depth to your drawings with 3D CAD. — The

hardcopy-printing and plotting. — Bespoke AutoCAD. — AutoLISP as a practical tool. — Add-on programs for AutoCAD. — Appendix A. Configuration. — Appendix B: Hints and hiccups. — Glossary. — Subject Index.

After presenting the AutoCAD's basic facilities and its methodology the author shows the most important drawing commands: line editing, entity selection, erase command, replication of existing entities, alteration of their characteristics, the block control tools of AutoCAD and the dimensioning subsystem. AutoCAD permits to use solid objects as wire frame skeletons. The book takes a brief look at the isometric projection, 2.5D and full 3D drawings of solid objects. It presents how you can customise AutoCAD to your own situation, how you can create bespoke menus and command macros. It shows you how to write your own screen and pull-down menus. It gives an introduction to programming with the programming language of AutoCAD, with AutoLISP. The important AutoLISP functions are described, with the emphasis on examples. The final chapter shows how to get others to do the programming for you. It covers routines distributed free to Autodeck and an overview of the commercial software available to enhance your CAD productivity.

The style of presentation is fairly simple. Plain English is used, and where jargon cannot be avoided, it is clearly explained. The book of Timothy J. McCarthy, who is a lecturer in CAD at the Department of Civil and Structural Engineering at the University of Manchester Institute of Science and Technology can be recommended as textbook on undergraduate courses.

István VAJK
Department of Automation
Technical University of Budapest, Hungary