Book Reviews

Encyclopedia of Electronics

Ed. Stan Gibilisco, TAB Professional and Reference Books, Blue Ridge Summit, PA 17214, 1024 pp. Illus. 8½×11 in. Price $58.

With the field of electronics mushrooming and every area within its domain becoming more and more complex, an encyclopedia covering it all in one volume seems to be an impossibility. Actually, it is. The editors, however, have made a reasonably good effort to make the book comprehensive.

A single-volume encyclopedia such as this always must leave something to be desired by those in a particular field. For people in the television industry, shortcomings in terms of the definitions offered in various areas of the technology are apparent in this work. For example, the reference to *frame* indicates only the European, 625-line, 25-frames/sec system, without any mention of the NTSC parameters. This is an obvious error in a text edited solely by Americans.

The definition for *television* itself also leaves something to be desired: "Television is the transfer of moving visual images from one place to another." This is fine, so far, but the next sentence is a problem: "Television has existed for only a few decades, but it has greatly changed our lives since broadcasting stations *began to use it around 1950.*" Black-and-white television had been several years in commercial existence by 1950, and color television was proposed by CBS before that year.

Also, in this definition, 525 or 625 lines/frame is mentioned without telling the reader about NTSC, PAL, or SECAM, and without mentioning 25 frames/sec in addition to 30. Some other definitions regarding television are adequate and helpful to the general, electronically oriented reader, but not to someone in the television industry.

There are many good things to say about the volume, however. It contains a great deal of material on antennas, audio, components, computers, radiolocation, and solid-state electronics, as well as mathematical data and test and measurement information. Although someone in any of these fields could possibly find some small flaws in the definitions, they seem to this reviewer to be reasonably complete and accurate.

As a general handbook of definitions, the volume seems to fill a need and to be adequate. It is not really an encyclopedia in the sense of being authoritative in all of the fields it covers. At least, it is lacking to some extent in the television field. This may be nearly unavoidable in view of the scope involved, and is no reason to consider the volume generally unuseful.

— *Barry Detwiler*

Motion Picture Film Processing

By Dominic Case, Focal Press, London and Boston, 1985. One of a series of Media Manuals, 176 pp., glossary/index, illus., 5½×8½, soft cover, $14.95.

Under the modest title *Motion Picture Film Processing,* this author has assembled and presented, in broad scope, the entire gamut of motion-picture production information garnered over a full century. Presented from the vantage point of a film processing laboratory, in an exquisitely concise and precise manner, he describes the origins of moving pictures beginning with the Zoetrope.

Proceeding with a discussion of light and color, he covers images and lenses, light sources, vision, additive and subtractive color, and perception. The section on photochemistry is abundant with valuable information on emulsions, film manufacture exposure, speed and grain, sharpness, developers, processing machines, and chemical analysis.

Sensitometry is covered in a section of

only 14 pages, which includes discussion of logarithms, densitometers and sensitometers, curves, exposure range and latitude, gamma, processing control, and flashing. Printers and printing methods follow with a discussion of color correction and control, color timing, syncing, fades and dissolves, perforations, image geometry, optical printing, and wet-gate printing.

The sound section starts with sound waves and proceeds to recording, noise reduction, sound negative, cross-modulation tests, theatrical sound reproduction, and Dolby stereo soundtracks. Finally, in "Projection: The Final Product," the author covers the film projector, screen, television, film treatment, and storage.

The glossary/index contains a listing of all nomenclature, words, and terms peculiar to motion-picture film and, along with definitions, indicates page numbers in the book where discussion on the terms appears. The book is replete with excellent sketches and diagrams, clearly explaining each concept, leaving little to the imagination.

Frankly, this is a manual that cannot be praised too highly. This reviewer, with almost half a century in the film-processing industry, confesses that he has learned a great deal from this little volume, and recommends it highly to anyone engaged in the field.

— Paul A. Kaufman, Du Art Film Laboratories Inc.

Books, Booklets, Brochures

The McGraw-Hill Personal Computer Programming Encyclopedia, edited by William J. Birnes, has been introduced by McGraw-Hill Book Co., 1221 Ave. of the Americas, New York, NY 10020. The one-volume work examines the entire personal computing environment, both as a science and as a commercial industry. Functional and operating definitions of all the statements, commands, and source codes in 19 programming languages are given. It explains the strengths and weaknesses of each language in different applications, and provides translation tables between languages and dialects. The 696-page encyclopedia is available at a price of $80.

The Seybold Series on Professional Computing, has added two new titles, it was announced by BYTE Books/McGraw Hill. Designed for anyone who uses a microcomputer, and especially helpful to novices, this series reviews different soft-