

**THE UCSD PASCAL HANDBOOK—
A REFERENCE AND GUIDEBOOK FOR PROGRAMMERS**

by Randy Clark & Stephen Koehler
Prentice-Hall, Inc., 1982, 356 pgs., \$15.95

Reviewed by Brian Pankuch*

This book is about programming in UCSD Pascal. It is divided into two parts. The first 172 pages cover UCSD Pascal in detail. Included are all the usual topics plus modularity, concurrency, semaphores, memory management and much more.

The second part is a guide which includes 30 well written programs demonstrating good style. Each program is discussed in detail along with the output produced. The discussion goes beyond just the listed program to the reasons why a certain method is chosen plus auxiliary information which is helpful for more complete understanding. For the longer, more difficult programs each procedure is discussed individually, then together.

I copied into my system one of the longer programs (over four pages) that uses many of the practices of application and systems programming. After typing in the program, I was pleased to find that it seemed to work as described. After more exhaustive testing, the program, which was supposed to keep track of records in a file by listing allocated and unallocated records in the file, began mixing the two lists. This only happened for certain orders of operations. Smaller programs seemed to work fine, but you will want to be careful about using segments or programs without thorough testing.

This book forms a bridge between most of the books on the market, which introduce Pascal with very simple examples and cover part of the language, and other manuals that cover everything but have few, if any, examples. It is more of a reference book than a book to read page by page. It is a good second step after you've had an introduction to Pascal.

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CAMPUS COMPUTING STRATEGIES

Edited by John W. McCredie
Digital Press, 1983, 316 pgs., (hardcover) \$25.00

Reviewed by Harry E. Pence*

One of the many serious problems facing higher education in the current decade is the task of effectively integrating computing and the new information technologies into the academic community. Most campuses are presently in the process of attempting to meet the technological and organizational difficulties that accompany this challenge. Campus Computing Strategies is written to assist these efforts by describing the situation at several colleges and universities which are considered to be in the vanguard of these developments, so that other schools can use them as models.

This book is the result of a study performed during the 1981-82 academic year by EDUCOM, a non-profit consortium of over 500 colleges and universities founded in 1964 to promote the use of information technology in higher education. It focuses on the underlying strategies that were shaping decisions at ten institutions considered to demonstrate an innovative approach to this problem. Each school is described in a separate chapter, written by an individual from that campus who was directly involved in the planning process; John McCredie, the President of EDUCOM, provides an introduction to the topic. The emphasis throughout is not on hardware or software, but rather on identifying crucial problems and the organizational structures necessary to solve these problems.

The institutions described in the book are Hamilton, Dartmouth, Pepperdine, Carnegie-Mellon, Rensselaer Polytechnic Institute, Stanford, Cornell, University of Iowa, University of Minnesota, and the California State University system. The schools chosen represent a broad range in terms of both size and educational mission. Although a few important categories of institutions, such

as two-year colleges, are not represented, most readers at institutions of higher education will find a model for comparison. The individual authors take somewhat different approaches, but each chapter does offer a useful answer to the question of what colleges are doing, or planning to do, about these technological developments.

It is surprising to discover that, despite the widely differing types of schools represented, there are many similarities in their plans. McCredie notes a number of common strategies including a more decentralized information-processing environment, increased use of personal computers, development of local and national networks, library automation, the development of a local definition of computer literacy, and the expansion of text processing systems for both faculty and students.

In terms of the potential effects upon the educational process, probably the most important factor in common is the effort to integrate computing into the broader picture of communications technology. The various chapters discuss developments in expanded text processing, electronic mail, and networking which suggest that the dream of an electronic campus is rapidly becoming a reality.

As might be expected, there is less unanimity on the best organizational structure to accomplish these goals. Most of these institutions have designated a single office or individual to coordinate these issues related to information processing, but beyond that there is considerable diversity. For instance, the degree of faculty participation in the decision-making process varies, even though all of the campuses rely heavily on faculty opinions in order to define future needs. Some campuses have created a complex committee structure to deal expressly with the new technology, while others are depending primarily on the efforts of the individual departments.

Judging from the articles, it would appear that a very decentralized model for planning has made it difficult to develop a broad, campus-wide approach. In cases where the process is overly centralized, however, the reports indicate a lack of flexibility and a failure to identify problem areas early enough. The most successful institutions seem to have a general plan to provide overall direction, but also permit departments and other groups to have considerable flexibility within that plan.

This is not a book that will be equally useful to everyone who works with computers. It will be most valuable for those individuals who are directly involved in the development of computing plans for their campuses or departments. However, even for those who are more interested in using computers than in administrative planning, it may be interesting to compare the local campus with those considered to be the leaders in this rapidly developing field.

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SEVENTH C.C.C.E. NATIONAL COMPUTER WORKSHOPS-EAST

The registration form for the National Workshops to be held in Potsdam, NY, July 28th to August 1st, 1985 appears on the following page. Only the registration fee needs to accompany the Registration Form. Checks or money orders should be made out to Clarkson University. Housing will be provided in dormitory rooms with a shared bath between two rooms. The cost for single occupancy for four nights is \$52. Double occupancy is \$35 per person. This revised rate is less than is indicated in the registration form. Those interested in making Potsdam the home base for a vacation may be interested in weekly room rates which are \$57 for single occupancy and \$43 per person for double occupancy. In addition to local recreation Potsdam is within easy driving distance of the Adirondacks and Lake Placid, the Thousand Islands, Ottawa and Montreal. Persons planning to stay five or more days should request weekly rates.