PREFACE to the Second Edition

The practice of computer programming has changed since *The Elements of Programming Style* first appeared. Programming style has become a legitimate topic of discussion. After years of producing "write-only code," students, teachers, and computing professionals now recognize the importance of readable programs. There has also been a widespread acceptance of structured programming as a valuable coding discipline, and a growing recognition that program design is an important phase, too often neglected in the past.

We have revised *The Elements of Programming Style* extensively to reflect these changes. The first edition avoided any direct mention of the term "structured programming," to steer well clear of the religious debates then prevalent. Now that the fervor has subsided, we feel comfortable in discussing structured coding techniques that actually work well in practice.

The second edition devotes a whole new chapter to program structure, showing how top-down design can lead to better organized programs. Design issues are discussed throughout the text. We have made considerable use of pseudo-code as a program development tool.

We have also rewritten many of the examples presented in the first edition, to reflect (we hope) a greater understanding of how to program well. There are new examples as well, including several from the first edition which now serve as models of how *not* to do things. New exercises have been added. Finally, we have extended and generalized our rules of good style.

We are once again indebted to the authors and publishers who have graciously given us permission to reprint material from their textbooks. Looking back on some of our own examples makes us realize how demanding an effort good programming is.

We would also like to thank friends who read the second edition in draft form. In particular, Al Aho, Jim Blue, Stu Feldman, Paul Kernighan, Doug McIlroy, Ralph Muha, and Dick Wexelblat provided us with valuable suggestions.

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