

Preface

Like all Schaum's Outline Series books, this volume is intended to be used primarily for self study, preferably in conjunction with a regular course in C++ programming language or computer science. However, it is also well-suited for use in independent study or as a reference.

The book includes over 200 examples and solved problems. The author firmly believes that the principles of data structures can be learned from a well-constructed collection of examples with complete explanations. This book is designed to provide that support.

C++ was created by Bjarne Stroustrup in the early 1980s. Based upon C and Simula, it is now one of the most popular languages for object-oriented programming. The language was standardized in 1998 by the American National Standards Institute (ANSI) and the International Standards Organization (ISO). This new ANSI/ISO Standard includes the powerful Standard Template Library (STL). This book conforms to these standards.

Although most people who undertake to learn C++ have already had some previous programming experience, this book assumes none. It approaches C++ as one's first programming language. Therefore, those who have had previous experience may need only skim the first few chapters.

C++ is a difficult language for at least two reasons. It inherits from the C language an economy of expression that novices often find cryptic. And as an object-oriented language, its widespread use of classes and templates presents a formidable challenge to those who have not thought in those terms before. It is the intent of this book to provide the assistance necessary for first-time programmers to overcome these obstacles.

Source code for all the examples and problems in this book, including the Supplementary Problems, may be downloaded from these websites <http://projectEuclid.net/schaums>, <http://www.richmond.edu/~hubbard/schaums>, <http://hubbards.org/schaums>, or <http://jhubbard.net/schaums>. Any corrections or addenda for the book will also be available at these sites.

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