C Programming

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"Of any C textbook on the market, the Deitel book easily provides the clearest and most in-depth approach to standard C programming for students of all abilities. With this book, my students have a tremendous resource that will enable them to succeed not only in my classrooms but in the professional workplace for years to come." — William Smith, Tulsa Community College

"The end-of-chapter exercises are worth their weight in gold if you are learning, and especially teaching, C." — Jim Hogg, Program Manager, C/C++ Compiler Team, Microsoft Corporation

"An excellent introductory computer science text. While C is a complex language, this book does a good job making this material accessible while providing a strong foundation for further learning." — Robert C. Seacord, Secure Coding Manager at SEI/CERT, author of The CERT C Secure Coding Standard and technical expert for the international standardization working group for C

"The extended examples, along with the supporting text, are the best of any of the C texts I’ve seen. Running the code for the supplied examples in conjuction with reading the text provides students with a laboratory for gaining a thorough understanding of how C works." — Tom Retard, University of Texas at Arlington

"It would be hard for anyone not to understand pointers clearly after reading this text!" — José Antonio González Seco, Parliament of Andalucía

"A great introduction to the C programming language and software engineering. It’s fresh and up to date with modern software industry realities. Teaches pseudocode, flowcharts, algorithms and various approaches to problem solving. There are quite a few fun, invigorating exercises that make me want to code." — Vytis Losienius, Microsoft Corporation

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For an introduction to C++, see the Preface for more.

More Comments Inside the Back Cover

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"Millions of students and professionals worldwide have learned programming with Deitel® books, videos, e-books, online articles, instructor-led training and resource centers. C How to Program, 8/e introduces procedural programming in C and object-oriented and generic programming in C++. It’s appropriate for introductory- and intermediate-level C and C++ programming courses. Features include:

- Rich coverage of fundamentals: real-world examples.
- Integrated features of the C99 and C11 standards.
- Secure C Programming sections.
- Code tested on GNU gcc, Visual C++®, Xcode® LLVM.
- Debugging with GNU gdb, Visual C++® and Xcode®.
- Making a Difference contemporary exercises.
- Multithreading and multi-core performance.
- Detailed chapter summaries with page references.

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EIGHTH EDITION

PAUL DEITEL

HARVEY DEITEL
ABOUT THIS BOOK

C is one of the most widely used programming languages in the world. It has influenced a whole family of object-oriented languages, including C++, Java™, C#, Objective-C® and, most recently, Apple's new programming language for iOS® and OS X® app development and systems programming—Swift™. C How to Program, 9/e, provides rich coverage of programming fundamentals, focuses on problem-solving techniques, is up-to-date with the C99 and C11 standards and introduces important real-world concepts, such as secure C programming, multithreading and multi-core performance, and more. All of the C code was tested using the latest GNU gcc, Visual C++ and Xcode LLVM compilers. The book also includes a 300+ page introduction to object-oriented programming with C++ taken from the Deitels' C++ How to Program, 9/e. If you're an instructor considering adopting this book for your classes or a student or professional programmer considering purchasing the book, you can quickly get the gist of the book by reading the back cover, the reviewer testimonials on the pages inside the back cover and the Preface.

C How to Program, 9/e is the ninth edition of the series started by Narsingh Deitels in 1988. The Deitels' introduction to C is unique in its focus on teaching good programming habits and practices. The Deitels' books advocate a bottom-up approach to improving programming skills that starts with the basics and gradually builds on that foundation. Each chapter is a building block that students can use to build on their understanding of programming fundamentals, which they can further study and practice in each subsequent chapter. The Deitels' books also focus on software engineering practices, such as code organization, commenting and testing, which are essential skills for developing high-quality software.

The Deitels' How to Program series is designed for introductory- and intermediate-level college programming courses, and is widely used by professional programmers. The series presents focused treatments on a growing list of emerging and mature technologies, including C, Java™, C++, C#, Visual Basic®, JavaScript™, Internet and web development, Python®, Swift™, iOS® and Android™ app development and more. Each book in the series uses the Deitels' live-code teaching methodology — concepts are presented in the context of completely coded, fully tested apps with sample live executions.

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