1. Record Nr. UNINA9910616206503321 Autore Kalin Martin **Titolo** Modern C Up and Running: A Programmer's Guide to Finding Fluency and Bypassing the Quirks / / by Martin Kalin Berkeley, CA:,: Apress:,: Imprint: Apress,, 2022 Pubbl/distr/stampa **ISBN** 9781484286760 1484286766 Edizione [1st ed. 2022.] Descrizione fisica 1 online resource (371 pages) Disciplina 371.39445 Programming languages (Electronic computers) Soggetti Computer science Programming Language Computer Science Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. 1. Program Structure -- 2. Basic Data Types -- 3. Aggregates and Nota di contenuto Pointers -- 4. Storage Classes -- 5. Input and Output -- 6. Networking -- 7. Concurrency and Parallelism -- 8. Miscellaneous Topics. Learn how to program in modern C, from the basics through the Sommario/riassunto advanced topics required for proficiency. This book is the fastest path to C fluency for anyone experienced in a general-purpose programming language. From start to finish, code examples highlight the idioms and best practices behind efficient, robust programs in a variety of areas. The book opens with a thorough coverage of syntax, built-in data types and operations, and program structure. C has quirks and presents challenges, which are covered in detail. The coverage of advanced features is what sets this book apart from others. Among the advanced topics covered are floating-point representation in the IEEE 754 standard; embedded assembly language in C code for overflow detection; regular expressions, assertions, and internationalization; WebAssembly through C; and software libraries for C and other clients. Memory efficiency and safety are the two major challenges in C programming, and you'll explorethese challenges through a series of C

examples. Arrays and structures, which are the means to high-level

data representation, are covered in connection with pointers, which provide efficiency. The book again uses code examples in covering networking and wire-level security; concurrency (multiprocessing and multithreading); instruction-level parallelism; and interprocess communication through shared memory and files, pipes, message queues, and signals. Many books introduce C, but few also explain how to use it properly and optimally. Essential C does just that. •.