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Descrizione fisica	1 online resource (XXI, 539 p. 690 illus.)
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Soggetti	Operating systems (Computers) Programming languages (Electronic computers) Operating Systems Programming Languages, Compilers, Interpreters
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
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Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Introduction -- Foundations and Background -- Booting Operating Systems -- A Simple Operating System Kernel -- User Mode and System Calls -- Process Synchronization -- Memory Management -- Interrupt Processing and Process Scheduling -- Signals and Signal Processing -- Device Drivers -- File System -- Block Device I/O and Buffer Management -- User Interface -- MTX in 32-bit Protected Mode -- Symmetric Multiprocessing MTX -- Hybrid Operating Systems.
Sommario/riassunto	This course-tested textbook describes the design and implementation of operating systems, and applies it to the MTX operating system, a Unix-like system designed for Intel x86 based PCs. Written in an evolutionary style, theoretical and practical aspects of operating systems are presented as the design and implementation of a complete operating system is demonstrated. Throughout the text, complete source code and working sample systems are used to exhibit the techniques discussed. The book contains many new materials on the design and use of parallel algorithms in SMP. Complete coverage on booting an operating system is included, as well as, extending the process model to implement threads support in the MTX kernel, an init program for system startup and a sh program for executing user commands. Intended for technically oriented operating

systems courses that emphasize both theory and practice, the book is also suitable for self-study.
