PREFACE

Software reliability is the probability that a given software will be functioning without failure in a given environment during a specified period of time. Although extensive research has been done in the area of hardware reliability, the growing importance of software dictates that the focus shift to software reliability. As computers are used increasingly to monitor and control critical systems, software reliability becomes ever more essential; failures in air traffic control systems, nuclear reactors, or hospital patient monitoring systems can bring catastrophic consequences.

The cost of developing software and the costs resulting from software failures are the major expenses in current computer systems. This book includes 14 recent papers from the rapidly growing literature on this topic. The book's purpose is to review the latest software reliability models, testing techniques, and applications, providing an overview of recent directions in research and stimulating further research in the field.

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