

Reliable Distributed Computing with the Isis Toolkit. Systems

Description: In distributed computing systems the software for networks a system may have a huge number of components resulting in a high level of complexity. That and issues such as fault-tolerance, security, system management, and exploitation of concurrency make the development of complex distributed systems a challenge.

The Isis Toolkit has become one of the most successful approaches for building reliable distributed software since its release in 1987. Commercially available since 1990, Isis is used in hundreds of settings, including the New York Stock Exchange, the Electronic Stock Exchange of Switzerland, the data acquisition system of the CERN high-energy physics particle accelerator, VLSI fabrication control systems, the Iridium telecommunication system, database applications at the World Bank, and an Arctic weather environment monitoring system. Isis is also widely used for instructional purposes.

This book comprises papers that document Isis and describe its important applications. Many of these are previously unpublished papers that give a broad overview of Isis, provide details of the underlying protocols and theory, and discuss the best ways to exploit Isis features in real applications. This volume will be of use to practitioners developing Isis-based applications, to instructors using Isis in classroom settings, and to researchers who want a single reference source for this important approach to distributed computing.

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