Scalable Input/Output: Achieving System Balance

By -

MIT Press Ltd, United States, 2004. Paperback. Book Condition: New. New.. 228 x 177 mm. Language: English . Brand New Book. As we enter the decade of data, the disparity between the vast amount of data storage capacity (measurable in terabytes and petabytes) and the bandwidth available for accessing it has created an input/output bottleneck that is proving to be a major constraint on the effective use of scientific data for research. Scalable Input/Output is a summary of the major research results of the Scalable I/O Initiative, launched by Paul Messina, then Director of the Center for Advanced Computing Research at the California Institute of Technology, to explore software and algorithmic solutions to the I/O imbalance. The contributors explore techniques for I/O optimization, including: I/O characterization to understand application and system I/O patterns; system checkpointing strategies; collective I/O and parallel database support for scientific applications; parallel I/O libraries and strategies for file striping, prefetching, and write behind; compilation strategies for out-of-core data access; scheduling and shared virtual memory alternatives; network support for low-latency data transfer; and parallel I/O application programming interfaces.

READ ONLINE
[2.03 MB]

Reviews

This book is really gripping and fascinating. I really could comprehended almost everything using this published e book. I am just very easily can get a delight of reading a published publication.
-- Kailey Pacocha

Completely essential study publication. Better then never, though i am quite late in start reading this one. I am very easily could get a delight of reading a composed publication.
-- Marilyne Macejkovic