System Performance Tuning answers one of the most fundamental questions you can ask about your computer: How can I get it to do more work without buying more hardware? In the current economic downturn, performance tuning takes on a new importance. It allows system administrators to make the best use of existing systems and minimize the purchase of new equipment. Well-tuned systems save money and time that would otherwise be wasted dealing with slowdowns and errors. Performance tuning always involves compromises; unless system administrators know what the compromises are, they can't make intelligent decisions. Tuning is an essential skill for system administrators who face the problem of adapting the speed of a computer system to the speed requirements imposed by the real world. It requires a detailed understanding of the inner workings of the computer and its architecture. System Performance Tuning covers two distinct areas: performance tuning, or the art of increasing performance for a specific application, and capacity planning, or deciding what hardware best fulfills a given role. Underpinning both subjects is the science of computer architecture. This book focuses on the operating system, the underlying hardware, and their interactions. Topics covered include: Real and perceived performance problems, introducing capacity planning and performance monitoring (highlighting their strengths and weaknesses). An integrated description of all the major tools at a system administrator’s disposal for tracking down system performance problems. Background on modern memory handling techniques, including the memory-caching filesystem implementations in Solaris and Aix. Updated sections on memory conservation and computing memory requirements. In depth discussion of disk interfaces, bandwidth capacity considerations, and Raid systems. Comprehensi
I had looked at the first edition of this book many times, but not bought it because of the age of the information. At long last--a second edition! Completely updated, and current! Many parts of this book are top-notch. It does an excellent job of drilling down the process tree, caching processes (memory and disk, and the structures of both), and bottlenecks such as latency. I learned a lot, and I've got a fair background in performance tuning. However... The "Solaris and Linux" part is a joke--they could have eliminated all of the Linux tuning instruction/reference, and the book might have lost 15 pages. Clearly the authors aren't nearly as familiar with Linux as they are with Solaris. Not a big deal, but it's misleadingly marketed. Furthermore, there are many MANY mistakes in the text--mistakes that, if read as given, run absolutely counter to the way the system behaves. Weren't there ANY proofreaders for this book? Also, the sections on disk performance and reliability (i.e. RAID arrays) were confusing and inconsistent. This is a subject I know and know well, and can only assume that the authors simply don't 'get' some of the stuff they're trying to present. Buried in all of these mistakes and shortcomings is a 5-star book just screaming to get out. If they fixed the things I've mentioned, this would be THE standard reference--the performance tuning version of Evi Nemeth (et. al)'s Unix sysadmin handbook. As it is, it's very useful, but get a second reference on anything you can't puzzle out--you might be right.

The second edition brings a well known classic in system administration up to date, focusing on both the theory and principals governing system performance, along with a set of excellent practical examples that can be applied to see immediate results. The book is great for both introductory and advanced administrators, and covers the full gamut of performance, from code to disk to CPU. What is especially refreshing is the focus on practical performance tuning, helping to make tuning you do have maximal benefit for your applications.

Please note that the previous reviews refer to the first edition of this book. This is the second edition, which was released in February 2002 and is up-to-date.

I have relied on O'Reilly for many UNIX SA topics. System Performance Tuning was a very boring read for me. It seemed to cover too many topics, none in enough depth. I really was eager to learn
about the intricacies of the vmstat, iostat, etc. commands. While the book does discuss them, it sprinkles the use of them throughout the book, and relies very heavily on the Solaris variety of them. I was under the impression that this book would be targeted for seasoned SA’s. I was very wrong- there is no need for discussions on how "threads are not processes" or generic definitions of what RAID or a network is; prior knowledge of these should all be assumed in this kind of book. Not only was the book poorly constructed and not nearly deep enough, but there were also technical mistakes throughout. This really bugs me: once I see a single glaring mistake in a technical book, I begin to second-guess anything that doesn't appear right (even though it may be correct!) I hope the next version is better done.

This is an excellent book, but, ten years later, it's now woefully out-of-date. It has a heavy emphasis on Solaris, whose use is in steep decline. Many of the technologies (SCSI, SBus) are obsolete. Other technologies (SSD, SATA, SAS) were not practicable at the time. There are still useful sections, but it's up to the reader to work out what parts are no longer applicable. Hopefully O'Reilly is working on a worthy successor.

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