

Oracle Tuning By Donald K Burleson

Provides information on using solid state RAM disk to optimize the performance of Oracle.

Oracle Database 12c running on Linux is available for deployment on IBM® LinuxONE. The enterprise-grade Linux on LinuxONE solution is designed to add value to Oracle Database solutions, including the new functions that are introduced in Oracle Database 12c. In this IBM Redbooks® publication, we explore the IBM and Oracle Alliance and describe how Oracle Database benefits from LinuxONE. We then explain how to set up Linux guests to install Oracle Database 12c. We also describe how to use the Oracle Enterprise Manager Cloud Control Agent to manage Oracle Database 12c Release 1. Additionally, we discuss encryption for Oracle using Oracle Transparent Data Encryption (TDE) on Oracle 12c Release 2. We also describe a successful consolidation project from sizing to migration, performance management topics, and high availability. Finally, we end with a chapter about surrounding Oracle with Open Source software. The audience for this publication includes database consultants, installers, administrators, and system programmers. This publication is not meant to replace Oracle documentation, but to supplement it with our experiences while installing and using Oracle products.

In this Hugo Award–winning alternative history classic—the basis for the Amazon Original series—the United States lost World War II and was subsequently divided between the Germans in the East and the Japanese in the West. It's America in 1962. Slavery is legal once again. The few Jews who still survive hide under assumed names. In this world, we meet characters like Frank Frink, a dealer of counterfeit Americana who is himself hiding his Jewish ancestry; Nobusuke Tagomi, the Japanese trade minister in San Francisco, unsure of his standing within the bureaucracy and Japan's with Germany; and Juliana Frink, Frank's ex-wife, who may be more important than she realizes. These seemingly disparate characters gradually realize their connections to each other just as they realize that something is not quite right about their world. And it seems as though the answers might lie with Hawthorne Abendsen, a mysterious and reclusive author, whose best-selling novel describes a world in which the US won the War... The Man in the High Castle is Dick at his best, giving readers a harrowing vision of the world that almost was. "The single most resonant and carefully imagined book of Dick's career." —New York Times

"Offers hundreds of hints, tips, and tricks of the trade that can be useful to any DBA wanting to achieve maximum performance of Oracle applications. No Oracle library would be complete without this book." --Ken (Dr. DBA) Jacobs, Vice President of Product Strategy for Server Technologies, Oracle Corporation "Rich is the first and last stop for Oracle Database technology and performance tuning. His knowledge is a vital tool that you need to successfully negotiate the waters of Oracle database development." --Mike Frey, Principal Architect, Navteq

Covering all aspects of Oracle disk I/O tuning, this book explores disk performance, RAID management, Oracle data file performance, and Oracle data segment internals. Also explored is physical disk I/O, which includes disk device internals, detecting disk bottlenecks, disk organization techniques, and disk striping and disk load balancing. Highlighted are RAID and Oracle performance as well as techniques for effective use of RAID with Oracle. Additionally, Oracle data file internals are considered and how to use multiple data block sizes to detect and repair Oracle data segment bottlenecks and segment waits is described. Oracle segment management is illustrated, and the effective use of Oracle segment partitioning, segment slot internals, and monitoring segment I/O is explained.

Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. From the official Oracle Press comes a comprehensive guide to tuning SQL statements for optimal execution This expert resource explains how to view the internal execution plan of any SQL statement and change it to improve the performance of the statement. You'll get details on Oracle's optimizer modes, SQL extensions, the STATSPACK utility, and a wealth of methods for tuning Oracle SQL statements.

A reference guide for database administrators and application developers who want to quickly create Web pages and interface them with existing databases. Real-world examples for all techniques are included, and the reader can extract and customize working code to use it immediately in his or her own applications. The book guides the developer through all of the implementation steps for a database-interfaced Web page, from initial planning to final rollout, and includes details about World Wide Web architecture, as well as hints for performance and tuning. For computer professionals who need to create Web pages that interface with database engines, and for fast retrieval of information from the Internet, this text provides the necessary techniques. Platform: Windows 95, NT, UNIX.

A poorly performing database application not only costs users time, but also has an impact on other applications running on the same computer or the same network. SQL Tuning provides an essential next step for SQL developers and database administrators who want to extend their SQL tuning expertise and get the most from their database applications. There are two basic issues to focus on when tuning SQL: how to find and interpret the execution plan of an SQL statement and how to change SQL to get a specific alternate execution plan. SQL Tuning provides answers to these questions and addresses a third issue that's even more important: how to find the optimal execution plan for the query to use. Author Dan Tow outlines a timesaving method he's developed for finding the optimum execution plan--rapidly and systematically--regardless of the complexity of the SQL or the database platform being used. You'll learn how to understand and control SQL execution plans and how to diagram SQL queries to deduce the best execution plan for a query. Key chapters in the book include exercises to reinforce the concepts you've learned. SQL Tuning concludes by addressing special concerns and unique solutions to "unsolvable problems." Whether you are a programmer who develops SQL-based applications or a database administrator or other who troubleshoots poorly tuned applications, SQL Tuning will arm you with a reliable and deterministic method for tuning your SQL queries to gain optimal performance.

When your database application isn't running fast enough, troubleshooting is usually your first move. Finding the slow part of an application is often easy, but discovering a solution can prove much more difficult. Troubleshooting Oracle Performance helps by providing a systematic approach to addressing the underlying causes of poor database application performance. Written for developers by an application developer who has learned by doing, this book shows you how to plan for performance as you would for any other application requirement.

Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. From the exclusive publisher of Oracle Press books, here is an architectural and technical reference on how to use Oracle Application Server 10g to Web-enable Oracle databases for application server systems. You'll find coverage of installation, configuration, and tuning, using Java with Oracle Application Server 10g, and much more.

Expert Oracle SQL: Optimization, Deployment, and Statistics is about optimizing individual SQL statements, especially on production database systems. This Oracle-specific book begins by assuming you have already identified a particular SQL statement and are considering taking steps to improve its performance. The book describes a systematic process by which to diagnose a problem statement, identify a fix, and to implement that fix safely in a production system. You'll learn not only to improve performance when it is too slow, but also to stabilize performance when it is too variable. You'll learn about system statistics and how the Cost-Based Optimizer uses them to determine a suitable execution plan for a given statement. That knowledge provides the foundation from which to identify the root cause, and to stabilize and improve performance. Next after identifying a problem and the underlying root cause is to put in place a solution.

Expert Oracle SQL: Optimization, Deployment, and Statistics explains how to apply various remedies such as changing the SQL statement, adding hints, changing the physical design, and more, and how they can be brought to bear on fixing a problem once and for all. Rolling a change out smoothly is an important topic when dealing with tuning and optimization. Expert Oracle SQL: Optimization, Deployment, and Statistics does not let you down in this critical area. The book contains two chapters of good information from an experienced professional on how to safely deploy changes into production so that your systems remaining running and available throughout the deployment process. Describes a systematic approach to tuning Oracle SQL Explains how things are supposed to work, what can go wrong, and how to fix it Takes you through the steps needed to stabilize performance in your production systems

It's impossible to tune an Oracle database without understanding SQL tuning. Oracle is a SQL processing engine and the execution speed of any SQL query is influenced by many factors, both internal and external. As a declarative data access method, SQL relies on the Oracle cost-based optimizer to always choose the "best" execution plan for every SQL query. However, Oracle's SQL is among the most flexible and robust in the world, and along with this great power comes complexity. Tuning Oracle SQL is the single most important skill of any Oracle professional, and Oracle professionals are challenged to create SQL statements that will support thousands of concurrent executions with sub-second response time. "Advanced Oracle SQL Tuning" is a pragmatic treatment of Oracle SQL tuning, short on theory and big on real-world techniques and tips. This book is the culmination of the author's 25 years of full-time DBA experience and he shares expert tips and secrets for hyper charging SQL execution speed. This book covers advanced topics and it is not appropriate for beginners, dilettantes or neophytes. Canada was young during the First World War, and with as many as 20,000 underage soldiers leaving their homes to join the war effort, the country's army was, too. Jim, at 17, was one of them, and he penned countless letters home. But these weren't the writings of an ordinary boy. They were the letters of a lad who left a small farming community for the city on July 15, 1915, a boy who volunteered to serve with the 79th Queen's Own Cameron Highlanders. Jim's letters home gloss over the horrors of war, focusing instead on issues of the home front: of harvesting, training the horses, and the price of hogs. Rarely do these letters, especially those to his mother and father, mention the mud and rats, the lice and stench of the trenches, or the night duty of cutting barbed wire in no man's land. For 95 years his letters remained in a shoebox decorated by his mother. Jim was just 18 when he was wounded and died during the Battle of the Somme. Hold the Oxo! tells the story that lies between the lines of his letters, filling in the historical context and helping us to understand what it was like to be Jim.

As Oracle professionals are challenged to create SQL statements that will support thousands of concurrent executions with sub-second response time, this book's timing is critical as tuning Oracle SQL has become the single most important skill of the Oracle professional. While not appropriate for the beginner, this book allows senior Oracle professionals to explore important internal mechanisms within Oracle and the powerful and complex internals of Oracle SQL execution. Topics include the internals of Oracle cost-based SQL optimizer, SQL execution internals within the library cache, Oracle SQL coding and optimization techniques, and Oracle index internals. Also included is a ready-to-use code depot full of working SQL tuning scripts, which allow for quick optimization of the SQL and indexes inside the Oracle database.

Written by the world's top Oracle script developers and authors of over 50 best-selling Oracle books, Mike Ault, Don Burleson and Harry Conway shares their personal arsenal of Oracle data dictionary scripts in this comprehensive book. With over 50 years of combined experience using Oracle monitoring scripts and Oracle tuning scripts, this is the most comprehensive Oracle script collection ever assembled.

Troubleshoot, tune, and optimize your Oracle database efficiently and successfully every time. This book explains how to take full advantage of the revolutionary Oracle Wait Interface to quickly pinpoint--and solve--core problems and bottlenecks, and increase productivity exponentially.

A reference for getting the most from performance and tuning of Oracle database applications. This volume explains complex database interactions and allows the developer to immediately begin tuning his or her applications. Packed with actual examples from Oracle databases, the book guides the developer through all of the implementation steps, from initial planning to final rollout. The author details how to create and fine-tune real-world systems that run very fast and fully utilize the features of the Oracle database.

This is the definitive guide to all Oracle utilities, and it is targeted at experienced Oracle professionals who need to perform powerful system-wide operating system internal operations on their Oracle databases. The authors approach Oracle Utilities from a functional perspective, adding value by explaining the "why" and "how" for the use of all Oracle Utilities. This comprehensive book includes details on all of the Oracle utilities, including experts-only sections on undocumented utilities, plus the Linux/UNIX utilities, Oracle command-line utilities, and the all-important DBA package utilities. This indispensable book covers all areas of Oracle database administration and includes secrets for database migration (with Data Pump and SQL*Loader) and detailed tips for using The Oracle OS utilities (e.g. BBED, dbv, orastack, orakill). The book also covers Oracle tuning utilities, including ADDM and the SQL tuning advisors as well as the traditional command-line tuning utilities such as dbms_alert and dbms_xplan, tkprof and dbms_debug. This book is special because noted Oracle experts supplement the operational considerations of Oracle utilities with expert insights and working scripts. The time savings from a single utility script is easily worth the price of this definitive book. This book is not for beginners. These are powerful utilities to be used only by experienced DBAs and developers who need to perform powerful system-wide operating system internal operations on their Oracle databases.

Proven Database Optimization Solutions?Fully Updated for Oracle Database 12c Release 2 Systematically identify and eliminate database performance problems with help from Oracle Certified Master

Richard Niemiec. Filled with real-world case studies and best practices, Oracle Database 12c Release 2 Performance Tuning Tips and Techniques details the latest monitoring, troubleshooting, and optimization methods. Find out how to identify and fix bottlenecks on premises and in the cloud, configure storage devices, execute effective queries, and develop bug-free SQL and PL/SQL code. Testing, reporting, and security enhancements are also covered in this Oracle Press guide. • Properly index and partition Oracle Database 12c Release 2 • Work effectively with Oracle Cloud, Oracle Exadata, and Oracle Enterprise Manager • Efficiently manage disk drives, ASM, RAID arrays, and memory • Tune queries with Oracle SQL hints and the Trace utility • Troubleshoot databases using V\$ views and X\$ tables • Create your first cloud database service and prepare for hybrid cloud • Generate reports using Oracle's Statspack and Automatic Workload Repository tools • Use sar, vmstat, and iostat to monitor operating system statistics

Furnishes practical, effective advice for developers and administrators using the SAP business system and the Oracle database system (version Oracle8 or Oracle7) together, covering the SAPDBA and SAPGUI utilities and offering information on data file placement, initialization parameters, backup, recovery, parallel processing, and more. Original. (Intermediate)

Oracle Tuning: The Definitive Reference Rampant Techpress

Offering accumulated observations of interviews with hundreds of job candidates, these books provide useful insights into which characteristics make a good IT professional. These handy guides each have a complete set of job interview questions and provide a practical method for accurately assessing the technical abilities of job candidates. The personality characteristics of successful IT professionals are listed and tips for identifying candidates with the right demeanor are included. Methods for evaluating academic and work histories are described as well.

Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. Get complete coverage of STATSPACK—Oracle's powerful tuning tool—inside this official guide Including ready-to-use STATSPACK scripts you'll be able to collect and analyze system data and soon have your Oracle database running at peak performance.

Oracle has become the world's most flexible and robust database and along with great power comes great complexity. This complexity requires that the DBA have expert knowledge of Oracle internals. This book provides a thorough step-by-step approach for holistic Oracle tuning in this challenging information technology era. It represents the knowledge accumulated from tuning thousands of Oracle databases. Oracle tuning has always been a complex task; however, it has become even more complex as Oracle evolves and yields new techniques for achieving optimal performance in the stressed production environment of today's high-tech world. Oracle STATSPACK and AWR has introduced a revolution in database tuning. By understanding these time-series tables, we can develop time-series tuning models to predict upcoming outages and dynamically change the instance to accommodate the impending resource changes. Database tuning efforts must become as sophisticated as the databases themselves. This book strives to show you how to leverage upon the wealth of Oracle performance information so that you can create a robust Oracle database engine, one that maximizes computing resources while minimizing overhead. If you are seeking theory, this is not the book for you. This book encapsulates the combined knowledge of over a century of hands-on DBA tuning experience, a pragmatic, practical approach for the professional Oracle DBA. This is not a book for beginners. Targeted at the senior Oracle DBA, this comprehensive book gives you all of the knowledge you need to be successful in tuning even the most complex Oracle database. The code download for this book is packed with ready-to-run scripts to monitor and identify even the most challenging performance issues.

Provides information on how to quickly troubleshoot Oracle performance problems, covering such topics as designing databases, storage and reorganization, memory usage, and SQL.

With the expert techniques discussed in this book, Oracle database administrators can automate routine tasks to save time and money and better monitor the flow of work. Using shell scripts—an indispensable tool on UNIX and Linux—any number of commands can be combined and executed either simultaneously or sequentially. More than 50 working shell scripts for both beginners and experts give Oracle professionals a fantastic head-start on automating their administration duties and are easily modifiable for any environment. Topics include the history of shells and shell scripting, detailed step-by-step instructions on building shell scripts, how to tell when things are working right, and how to effectively monitor the system for failures.

Performance problems are rarely "problems" per se. They are more often "crises" during which you're pressured for results by a manager standing outside your cubicle while your phone rings with queries from the help desk. You won't have the time for a leisurely perusal of the manuals, nor to lean back and read a book on theory. What you need in that situation is a book of solutions, and solutions are precisely what Oracle Database 12c Performance Tuning Recipes delivers. Oracle Database 12c Performance Tuning Recipes is a ready reference for database administrators in need of immediate help with performance issues relating to Oracle Database. The book takes an example-based approach, wherein each chapter covers a specific problem domain. Within each chapter are "recipes," showing by example how to perform common tasks in that chapter's domain. Solutions in the recipes are backed by clear explanations of background and theory from the author team. Whatever the task, if it's performance-related, you'll probably find a recipe and a solution in this book. Provides proven solutions to real-life Oracle performance problems Offers relevant background and theory to support each solution Gets straight to the point for when you're under pressure for results

Everything a DBA needs to know in one volume--this is the must-have reference for anyone working with the Oracle database, and it's been fully revised and updated for Oracle Database 10g. Co-author Kevin Loney is the all-time, best-selling Oracle Press author.

Explores how to monitor the behavior of the Oracle System Global Area and includes techniques to develop scripts, correct SGA performance problems, and collect historical data to use in memory areas. Proven PL/SQL Optimization Solutions In Oracle PL/SQL Performance Tuning Tips & Techniques, Oracle ACE authors with decades of experience building complex production systems for government, industry, and educational organizations present a hands-on approach to enabling optimal results from PL/SQL. The book begins by describing the discovery process required to pinpoint performance problems and then provides measurable and repeatable test cases. In-depth coverage of linking SQL and PL/SQL is followed by deep dives into essential Oracle Database performance tuning tools. Real-world examples and best practices are included throughout this Oracle Press guide. Follow a request-driven nine-step process to identify and address performance problems in web applications Use performance-related database tools, including data dictionary views, logging, tracing, PL/SQL Hierarchical Profiler, PL/Scope, and RUNSTATS Instrument code to pinpoint performance issues using call stack APIs, error stack APIs, and timing markers Embed PL/SQL in SQL and manage user-defined functions Embed SQL in PL/SQL using a set-based approach to handle large volumes of data Properly write and deploy data manipulation language triggers to avoid performance problems Work with advanced datatypes, including LOBs and XML Use caching techniques to avoid redundant operations Effectively use dynamic SQL to reduce the amount of code needed and streamline system management Manage version control and ensure that performance fixes are successfully deployed Code examples in the book are available for download.

If you are a typical Oracle professional, you don't have the luxury of time to keep up with new technology and read all the new manuals to understand each new feature of the latest release from Oracle. You need a comprehensive source of information and in-depth tips and techniques for using the new technology. You need Oracle Internals: Tips, Trick

A guide to the new features of Oracle Database 11g covers such topics as architectural changes, database administration upgrades, security enhancements, and programming innovations.

A guide to database benchmarking covers such topics as predictive analysis, benchmark components, testing an architecture, and maintaining SLAs.

Targeted at Oracle professionals who need fast and accurate working examples of complex issues, Oracle In-focus books target specific areas of Oracle technology in a concise manner. Plenty of working code is provided without a lot of theory, allowing database managers to solve their problems quickly without reviewing data that they already know. All code scripts are available for instant download from a companion web site.

Master the Configuration and Administration of Oracle WebLogic Server 11g Oversee a robust, highly available environment for your mission-critical applications using the expert information in this Oracle Press guide. Oracle WebLogic Server 11g Administration Handbook explains the latest management techniques for the de facto application server for Oracle Fusion Middleware 11g> and provides detailed examples and best practices. Find out how to use the Oracle WebLogic Server Administration Console feature, employ command-line and scripting tools, implement failover and migration capabilities, and generate reliable backups. Troubleshooting, tuning, and security procedures are also covered in this comprehensive resource. Install Oracle WebLogic Server 11g or upgrade from a previous version Configure domains, servers, clusters, custom networks, and virtual hosts Work with the Administration Console and Monitoring Dashboard features of Oracle WebLogic Server Use the WebLogic Scripting Tool (WLST) feature of Oracle WebLogic Server to manage and monitor domains Use the Oracle WebLogic Server Work Managers feature to optimize scheduled work Deploy Web applications, Enterprise JavaBeans, and Java EE modules Improve scalability and reliability using Oracle WebLogic Server clusters Monitor servers, tune the Java Virtual Machine, maximize throughput, and optimize performance Authenticate, authorize, and map users within defined security realms

For Oracle tuning professionals wishing to add more tools to their Oracle tuning toolbox, this guidebook introduces the various tuning analytical tools and helpful strategies to make the database easier to use. Details describe how to extract information from the database and use it to determine and increase efficiency. It also provides specific steps with detailed information on how to congeal large amounts of database performance information into one pool from which the DBA can carefully choose tuning options based on what is predicted, all to give them the biggest improvement in performance for the least time and money investment. Sample code, sample code results, and guidelines on how to interpret the results help users manipulate code in an effective way. With countless hints, tips, and tools, the guide fully explains how to work with the Oracle system on order to achieve database performance excellence.

This book is the first of its kind, a book dedicated to tuning the Oracle high availability RAC architecture. Oracle RAC databases are flexible and robust, and along with this flexibility comes complexity, making RAC tuning one of the most challenging areas of Oracle tuning. Packed with incisive insights and examples from one of America's leading RAC experts, guru Brian Peasland delivers an indispensable book for all RAC administrators who need to guarantee that their RAC systems run at optimal performance. It's not enough for the DBA to maintain and control RAC database, the RAC DBA must also have an arsenal of tools and scripts that will help them ensure that their RAC database run at optimal levels. This book will be valuable to all Oracle professionals who must tune their Oracle RAC systems for peak performance. Similar to tuning Oracle database systems in general, Oracle RAC performance tuning covers a wide variety of focus areas. Topics will include Oracle wait events specific to RAC deployments, using Oracle Enterprise Manager Grid Control and AWR in diagnosing RAC problems, and RAC utilities such as OS Watcher and ORAchK (formerly RACcheck). This book will also discuss architecture issues related RAC performance, delving into the cluster interconnect, physical disk layout and Oracle 12c new Flex Clusters. Oracle RAC also allows the workload the spread among several low cost servers (scale-out) rather than a large single server (scale-up), and this book examines these approaches from a tuning perspective. Many companies are working towards private cloud implementations using RAC, and this book is perfect for the DBA's charged with . Oracle 12c RAC raises the bar with its new multi-tenant database implementation. Think of multi-tenant as virtualization at the database level. As more companies start leveraging Oracle 12c RAC for their enterprise database architecture, it is important that the system be designed and tuned properly to ensure the application has a well-performing user experience. This unique book provides a one-stop location for any RAC DBA who must become a RAC performance tuning specialist. Most Oracle RAC books on the market devote only one chapter to performance tuning. The information in this book provides a solid foundation for one's first RAC deployment, and provide you with the tools and methods needed to keep your complex RAC systems running optimally. While this book is not for beginners, the reader is given sufficient background throughout the chapters so that most Oracle DBAs, even those will little Oracle RAC experience, will be able to understand its contents. Oracle RAC is inherently complex. This explains the concepts before delving into highly technical areas. Many in-depth areas of RAC tuning are explored that help the DBA reveal hidden performance trends within even the most complex RAC database.

A high-level handbook on how to develop auditing mechanisms for HIPAA compliant Oracle systems focuses on the security access and auditing requirements of the Health/Insurance Portability and Accountability Act of 1996 and discusses Oracle auditing features such as redo logs, system-level triggers, Oracle9i and the retrieval of sensitive data, and other key topics. Original. (Advanced)

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