

# Oracle Tuning The Definitive Reference Second Edition

Oracle Tuning The Definitive Reference Rampant TechPress

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

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

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

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

Despite the wide use of SQL \*Plus, few developers and database administrators know how powerful it really is. And the syntax can sometimes be tricky. This portable guide provides a quick reference to subjects such as interacting with SQL \*Plus, selecting data, formatting reports, writing scripting, and tuning SQL. There's also a command reference.

The Definitive Guide to Oracle Database 11g Get full details on the powerful features of Oracle Database 11g from this thoroughly updated Oracle Press guide. Oracle Database 11g: The Complete Reference explains how to use all the new features and tools, execute powerful SQL queries, construct PL/SQL and SQL \*Plus statements, and work with large objects and object-relational databases. Learn how to implement the latest security measures, tune database performance, and deploy grid computing techniques. An invaluable cross-

referenced appendix containing Oracle commands, keywords, features, and functions is also included. Install Oracle Database 11g or upgrade from an earlier version Create database tables, sequences, indexes, views, and user accounts Construct SQL statements, procedures, queries, and subqueries Optimize security using virtual private databases and transparent data encryption Import and export data using SQL\*Loader and Oracle Data Pump Use SQL replay, change management, and result caching Avoid human errors using flashback and automatic undo management Build and tune PL/SQL triggers, functions, and packages Develop database applications using Java, JDBC, and XML Optimize availability and scalability with Oracle Real Application Clusters

PeopleSoft for the Oracle DBA, Second Edition stands on the boundary between the PeopleSoft application and the Oracle database. This new edition of David Kurtz's book is freshly revised, showing how to tame the beast and manage Oracle successfully in a PeopleSoft environment. You'll learn about PeopleSoft's Internet architecture and its use of Oracle's Tuxedo Application Server. You'll find full coverage of key database issues such as indexing, connectivity, and tablespace usage as they apply to PeopleSoft. Kurtz also provides some of the best advice and information to be found anywhere on managing and troubleshooting performance issues in a PeopleSoft environment.

The solid coverage of performance troubleshooting is enough by itself to make PeopleSoft for the Oracle DBA a must-have book for any Oracle Database administrator working in support of a PeopleSoft environment. Explains PeopleSoft's technical architecture as it relates to Oracle Database Demonstrates how to instrument and measure the performance of PeopleSoft Provides techniques to troubleshoot and resolve performance problems 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.

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.

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 with 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.

Achieve 24x7 database uptime and expand your Oracle knowledge using the hundreds of tips and techniques provided in this unique reference.

New Internet functionality and support for Linux make Oracle8i a milestone release, and this authoritative guide explains all the tools and techniques administrators need to master this potent new database. Some of the new features covered include an embedded Java Virtual Machine, expanded data warehousing capabilities, and enhanced DBA tools. You'll discover SQL\*Plus basics and tools on your way to finding out more about fine-tuning performance and WebDB strategies. The CD-ROM includes a sample Oracle 8i database, sample scripts, and SQL\*Plus references.

One of the most important challenges faced by Oracle database administrators and Oracle developers is the need to tune SQL statements so that they execute efficiently. Poorly tuned SQL statements are one of the leading causes of substandard database performance and poor response time. SQL statements that perform poorly result in



frustration for users, and can even prevent a company from serving its customers in a timely manner. In this book, Mark Gurry shares his in-depth knowledge of Oracle's SQL statement optimizers. Mark's knowledge is the result of many hard-fought tuning battles during his many years of providing Oracle tuning services to clients. Mark provides insights into the workings of the rule-based optimizer that go well beyond what the rules tell you. Mark also provides solutions to many common problems that occur with both the rule-based and cost-based optimizers. In addition to the specific problem/solution scenarios for the optimizers, Mark provides a number of handy SQL tuning tips. He discusses the various optimizer hints, telling you when they can be used to good effect. Finally, Mark discusses the use of the DBMS\_STATS package to manage database statistics, and the use of outlines to specify execution plans for SQL statements in third-party applications that you can't otherwise modify.

If you have mastered the fundamentals of the PL/SQL language and are now looking for an in-depth, practical guide to solving real problems with PL/SQL stored procedures, then this is the book for you.

Announcing the 10th Anniversary Edition of the best-selling Oracle book of all time--Oracle8i: The Complete Reference! Written by Oracle experts and complete with a fully searchable book and reusable code on CD-ROM, this is the most definitive resource available on Oracle8i. It's a must-have for every Oracle professional.

A complete guide to SQL\*Loader, a utility used to move data from external files into an Oracle database, offers step-by-step instruction in the various applications of SQL\*Loader, providing a

task-oriented approach that covers the latest Oracle 8 and Oracle 8i features. Original. (Beginner/Intermediate)

Successfully meeting the challenges of combining VMware and Oracle, this comprehensive reference provides a broad spectrum of technological recommendations that demonstrate how to reliably and consistently achieve optimal configuration and maximum performance for any virtualized Oracle database scenario. The guide includes the best practices for virtualized servers, suggested virtualization server configuration, and recommendations for client operating system configuration for Oracle in a virtualized world. With real-world examples and highly applicable advice, this handbook also details the complexities of designing, configuring, maintaining, and tuning Oracle database deployments, making it a complete compendium for keeping virtualized Oracle databases in top form.

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.

Explores Oracle's implementation of SQL and explains how to perform tasks including querying time-based data, implementing conditional logic in queries, writing queries, and joining data from two or more tables.

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.

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.

"Geoff Ingram has met the challenge of presenting the complex process of managing Oracle performance. This book can support every technical person looking to resolve Oracle8i and Oracle9i performance issues." -Aki Ratner, President, Precise Software Solutions Ensuring high-performance and continuous availability of Oracle software is a key focus of database managers. At least a dozen books address the subject of "performance tuning"-- that is, how to fine-tune the Oracle database for its greatest processing efficiency. Geoff Ingram argues that this approach simply isn't enough. He believes that performance needs to be addressed right from the design stage, and it needs to cover the entire system--not just the database. High-Performance Oracle is a hands-on book, loaded with tips and techniques for ensuring that the entire Oracle database system runs efficiently and doesn't break down. Written for Oracle developers and DBAs, and covering both Oracle8i and Oracle9i, the book goes beyond

traditional performance-tuning books and covers the key techniques for ensuring 24/7 performance and availability of the complete Oracle system. The book provides practical solutions for:

- \* Choosing physical layout for ease of administration and efficient use of space
- \* Managing indexes, including detecting unused indexes and automating rebuilds
- \* SQL and system tuning using the powerful new features in Oracle 9i Release 2
- \* Improving SQL performance without modifying code
- \* Running Oracle Real Application Clusters (RAC) for performance and availability
- \* Protecting data using Recover Manager (RMAN), and physical and logical standby databases

The companion Web site provides the complete source code for examples in the book, updates on techniques, and additional documentation for optimizing your Oracle system.

Covering database, code, and architecture design for the Oracle operating system, this text is arranged in four sections including an overview of Oracle and data modelling; and aspects of database design including denormalization, data types, nulls, keys and indexes.

The definitive reference for every Oracle DBA—completely updated for Oracle Database 12c Oracle Database 12c DBA Handbook is the quintessential tool for the DBA with an emphasis on the big picture—enabling administrators to achieve effective and efficient database management. Fully revised to cover every new feature and utility, this Oracle Press guide shows how to harness cloud capability, perform a new installation, upgrade from previous versions, configure

hardware and software, handle backup and recovery, and provide failover capability. The newly revised material features high-level and practical content on cloud integration, storage management, performance tuning, information management, and the latest on a completely revised security program. Shows how to administer a scalable, flexible Oracle enterprise database Includes new chapters on cloud integration, new security capabilities, and other cutting-edge features All code and examples available online

Jonathan Lewis is one of the world's foremost authorities in this field (he is frequently quoted and reference by other leading experts, such as Tom Kyte – see for example

[http://asktom.oracle.com/pls/ask/download\\_file?p\\_file=3067171813508366601](http://asktom.oracle.com/pls/ask/download_file?p_file=3067171813508366601)

Book will be strongly co-promoted with Tom Kyte's Expert Oracle Database Architecture (1-59059-530-0) Highlights traps for those migrating from Oracle 8i to 9i to 10g, potentially averting often disastrous performance issues and downtime (=lost revenue) The first comprehensive book written to investigate, describe, and demonstrate the methods used by the Cost Based Optimizer Jonathan is one of very few Oracle authors to maintain online enhancements, errata and addenda pages, so the reader will be supported long after the book is published

The most trusted name in performance tuning updates his bestselling guide for the challenges of Oracle Database 11g + 11gR2, leaving no stone unturned in his pursuit of optimal tuning.

A valuable manual for database professionals looking to adopt open-source database technology demonstrates real-world techniques for migrating legacy applications to EnterpriseDB, furnishing working code, expert tips and tricks, and an overview of various EnterpriseDB applications, covering such areas as cross-platform integration, performance and tuning, programming, and Superset Procedural Language. Original (Intermediate/Advanced)

An interactive guide to Oracle's intensive query tool, SQL\* Plus, discusses its powerful features, furnishes a syntax quick reference, and explains how to write and execute script files, generate reports, extract data from the database, utilize new administrative features, query data dictionary tables, and more. Original. (Intermediate)

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

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.

Perform fast interactive analytics against different data sources using the Trino high-



performance distributed SQL query engine. With this practical guide, you'll learn how to conduct analytics on data where it lives, whether it's Hive, Cassandra, a relational database, or a proprietary data store. Analysts, software engineers, and production engineers will learn how to manage, use, and even develop with Trino. Initially developed by Facebook, open source Trino is now used by Netflix, Airbnb, LinkedIn, Twitter, Uber, and many other companies. Matt Fuller, Manfred Moser, and Martin Traverso show you how a single Trino query can combine data from multiple sources to allow for analytics across your entire organization. Get started: Explore Trino's use cases and learn about tools that will help you connect to Trino and query data Go deeper: Learn Trino's internal workings, including how to connect to and query data sources with support for SQL statements, operators, functions, and more Put Trino in production: Secure Trino, monitor workloads, tune queries, and connect more applications; learn how other organizations apply Trino

Oracle 10g has become the most complex database ever created and Oracle tuning has become increasingly complex. This book provides a complete step-by-step approach for holistic Oracle tuning and it is the accumulated knowledge from tuning thousands of Oracle databases. Incorporating the principles of artificial intelligence, Oracle10g has developed a sophisticated mechanism for capturing and tracking database performance over time periods. This new complexity has introduced dozens of new v\$ and DBA views, plus dozens of Automatic Workload Repository (AWR)

tables. The AWR and its interaction with the Automatic Database Diagnostic Monitor (ADDM) is a revolution in database tuning. By understanding the internal workings of the AWR tables, the senior DBA can develop time-series tuning models to predict upcoming outages and dynamically change the instance to accommodate the impending resource changes. This is not a book for beginners. Targeted at the senior Oracle DBA, this book dives deep into the internals of the v\$ views, the AWR table structures and the new DBA history views. Packed with ready-to-run scripts, you can quickly monitor and identify the most challenging performance issues.

This personal account details the pioneering attempt to train miniature ponies to guide the blind. Training tiny ponies to ride escalators, safely guide the blind through urban traffic, and tolerate flight in the passenger cabin of a commercial airliner are among the challenges discussed with humor and drama. This work tells the compelling story of how animal and human cooperation has provided a new assistance alternative for the blind.

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.

The authors have revised and updated this bestseller to include both the Oracle8i and new Oracle9i Internet-savvy database products.

Provides information on ways to achieve high performance from PL/SQL.

"... serious scholars of Vico as well as glottogeneticists will find much of value in this excellent monograph." -- New Vico Studies "... a provocative, well-researched argument which might find reapplication in the fields of anthropology, semiotics, archeology, psychology or even philosophy." -- Theological Book Review Danesi returns to the work of the 18th-century Italian philosopher Giambattista Vico to create a persuasive, original account of the evolution and development of language, one of the deep mysteries of human existence. The Vichian reconstruction of the origin of language is described at length, then evaluated in light of contemporary research in the cognitive, social, and biological sciences.

[Copyright: da3dc2168cf9291eb39e0a85ec6f1669](#)