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# Troubleshooting Oracle Performance

SECOND EDITION

INTUITIVELY IDENTIFY AND  
SOLVE PERFORMANCE PROBLEMS  
INVOLVING THE ORACLE DATABASE ENGINE

Christian Antognini

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# Troubleshooting Oracle Performance

**Joseph C. Johnson**



## **Troubleshooting Oracle Performance:**

**Troubleshooting Oracle Performance** Christian Antognini, 2014-06-14 *Troubleshooting Oracle Performance* 2nd Edition is your systematic guide to diagnosing and resolving performance problems in database backed applications involving Oracle's database engine. Christian Antognini brings a decade and a half experience to his topic. His first edition is one of the most well respected books in its field. This second edition has been rigorously updated to cover the latest developments in Oracle Database 11g Release 2 through Oracle Database 12c. What do you do when your database application isn't running fast enough? You troubleshoot, of course. Finding the slow part of an application is often the easy part of the battle. It's finding a solution that's difficult. *Troubleshooting Oracle Performance* 2nd Edition helps by providing a systematic approach to addressing the underlying causes of poor database application performance. The author freely shares his experience while explaining the underlying foundations of how SQL statements are executed by the Oracle database engine. You'll be able to draw a solid foundation of theory and shared experience as you face head on the performance challenges in your daily work. Written for developers by an application developer who has learned by doing. Gives a systematic approach to solving database application performance problems. Helps you plan for performance as you would for any other application requirement.

**Troubleshooting Oracle Performance** Christian Antognini, 2008-08-20 What do you do when your database application isn't running fast enough? You troubleshoot, of course. Finding the slow part of an application is often the easy part of the battle. It's finding a solution that's 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. Gives a systematic approach to solving database application performance problems. Helps you plan for performance as you would for any other application requirement.

*Troubleshooting Oracle Performance, Second Edition* Christian Antognini, 2014 *Troubleshooting Oracle Performance* 2nd Edition is your systematic guide to diagnosing and resolving performance problems in database backed applications involving Oracle's database engine. Christian Antognini brings a decade and a half experience to his topic. His first edition is one of the most well respected books in its field. This second edition has been rigorously updated to cover the latest developments in Oracle Database 11g Release 2 through Oracle Database 12c. What do you do when your database application isn't running fast enough? You troubleshoot, of course. Finding the slow part of an application is often the easy part of the battle. It's finding a solution that's difficult. *Troubleshooting Oracle Performance* 2nd Edition helps by providing a systematic approach to addressing the underlying causes of poor database application performance. The author freely shares his experience while explaining the underlying foundations of how SQL statements are executed by the Oracle database engine. You'll be able to draw a solid foundation of theory and shared experience as you face head on the performance challenges in your daily work. Written for developers by an application developer who has learned by doing. Gives a systematic approach to solving database application performance

problems Helps you plan for performance as you would for any other application requirement What you ll learn Systematically identify performance problems Configure the query optimizer to meet performance goals Read and recognize inefficient execution plans Minimize the impact of parsing upon performance Optimize data access joins and the physical design of your database Improve performance through parallel processing materialized views and result caching Apply SQL tuning techniques such as hints SQL profiles stored outlines and SQL plan baselines Reduce inefficiencies from too much procedural code Who this book is for Troubleshooting Oracle Performance Second Edition is targeted at application developers and database administrators involved in troubleshooting performance problems in Oracle based applications

Oracle Performance Troubleshooting Robin Schumacher,2003 A reference for any Oracle database administrators who must ensure the consistency of data across distributed platforms this book is for those administrators who recognize the benefits of distributing Oracle data The intricacies of Oracle multi master replication are described and working code examples of complex multi master replication are provided Also included is information on Oracle replication tuning and monitoring

**Oracle Performance Troubleshooting** Robin Schumacher,2003-01-01 If you re a DBA who s looking for real world Oracle tuning techniques Oracle scripts and advice on how to get to the heart of critical Oracle performance problems then you ve come to the right place Written by one the world s top DBAs and Oracle internals experts Robin Schumacher focuses his incredible knowledge of the Oracle data dictionary into a superb book that show how to quickly troubleshoot and correct Oracle performance problems **"The Oracle Performance Tuning Team Needs to Develop a New Troubleshooting Procedure that Includes Statspack"** Herbert Williams,2002 **Troubleshooting Java**

**Performance** Erik Ostermueller,2017-09-30 Troubleshoot the most widespread and pernicious Java performance problems using a set of open source and freely available tools that will make you dramatically more productive in finding the root causes of slow performance This is a brief book that focuses on a small number of performance anti patterns and you ll find that most problems you encounter fit into one of these anti patterns The book provides a specific method in a series of steps referred to as the P A t h Checklist that encompasses persistence alien systems threads and heap management These steps guide you through a troubleshooting process that is repeatable that you can apply to any performance problem in a Java application This technique is especially helpful in dark environments with little monitoring Performance problems are not always localized to Java but often fall into the realms of database access and server load This book gives attention to both of these issues through examples showing how to identify repetitive SQL and identify architecture wide performance problems ahead of production rollout Learn how to apply load like an expert and determine how much load to apply to determine whether your system scales Included are walk throughs of a dozen server side performance puzzles that are ready to run on your own machine Following these examples helps you learn to Assess the performance health of four main problems areas in a Java system The P A t h Checklist presents each area with its own set of plug it in now tools Pinpoint the code at fault for

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**Oracle Database 11g Performance Tuning Recipes** Sam Alapati, Darl Kuhn, Bill Padfield, 2011-10-17 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 11g Performance Tuning Recipes delivers Oracle Database 11g 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 Written by a team of experienced database administrators successful in their careers

**Oracle Wait Interface: A Practical Guide to Performance Diagnostics & Tuning** Richmond Shee, Kirtikumar Deshpande, K. Gopalakrishnan, 2004-07-16 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

**Expert Oracle Practices** Pete Finnigan, Alex Gorbachev, Tim Gorman, Charles Hooper, Jonathan Lewis, Niall Litchfield, Robyn Sands, Joze Senegacnik, Riyaj Shamsudeen, Jeremiah Wilton, Graham Wood, Connie Green, Karen Morton, Randolph Geist, Uri Shaft, Melanie Caffrey, Andrew Morton, Tom Green, Paul Wilton, Joe Lewis, 2010-03-24 This book is an anthology of effective

database management techniques representing the collective wisdom of the OakTable Network With an emphasis upon performance but also branching into security national language and other issues the book helps you deliver the most value for your company s investment in Oracle Database technologies You ll learn to effectively plan for and monitor performance to troubleshoot systematically when things go wrong and to manage your database rather than letting it manage you

**Software Performance and Scalability** Henry H. Liu, 2011-09-20 Praise from the Reviewers The practicality of the subject in a real world situation distinguishes this book from others available on the market Professor Behrouz Far University of Calgary This book could replace the computer organization texts now in use that every CS and CpE student must take It is much needed well written and thoughtful Professor Larry Bernstein Stevens Institute of Technology A distinctive educational text on software performance and scalability This is the first book to take a quantitative approach to the subject of software performance and scalability It brings together three unique perspectives to demonstrate how your products can be optimized and tuned for the best possible performance and scalability The Basics introduces the computer hardware and software architectures that predetermine the performance and scalability of a software product as well as the principles of measuring the performance and scalability of a software product Queuing Theory helps you learn the performance laws and queuing models for interpreting the underlying physics behind software performance and scalability supplemented with ready to apply techniques for improving the performance and scalability of a software system API Profiling shows you how to design more efficient algorithms and achieve optimized performance and scalability aided by adopting an API profiling framework perfBasic built on the concept of a performance map for drilling down performance root causes at the API level Software Performance and Scalability gives you a specialized skill set that will enable you to design and build performance into your products with immediate measurable improvements Complemented with real world case studies it is an indispensable resource for software developers quality and performance assurance engineers architects and managers It is an ideal text for university courses related to computer and software performance evaluation and can also be used to supplement a course in computer organization or in queuing theory for upper division and graduate computer science students **OCP: Oracle9i**

**Performance Tuning Study Guide** Joseph C. Johnson, 2006-07-14 Here s the book you need to prepare for Exam 1Z0 033 Oracle9i Database Performance Tuning This Study Guide provides In depth coverage of official exam objectives Practical information on optimizing Oracle9i databases Hundreds of challenging review questions in the book and on the CD Authoritative coverage of all exam objectives including Using Diagnostic and Tuning Tools Monitoring and Managing the Buffer Cache Optimizing Sort Operations Detecting and Resolving Lock Contention Diagnosing Shared Server Performance Issues Using Oracle Blocks Efficiently Tuning SQL Statements Configuring Resource Manager Note CD ROM DVD and other supplementary materials are not included as part of eBook file **Oracle8 Troubleshooting** Rama Velpuri, Anand

Adkoli, 1999 This latest edition has all new material on Oracle8 and Oracle Applications such as Oracle Financials and Oracle

Web Application Server The CD ROM is value packed featuring Oracle World Wide Customer Support technical bulletins sample scripts and sample configuration files

**Relational Database Design and Implementation** Jan L. Harrington, 2016-04-15 Relational Database Design and Implementation Clearly Explained Fourth Edition provides the conceptual and practical information necessary to develop a database design and management scheme that ensures data accuracy and user satisfaction while optimizing performance Database systems underlie the large majority of business information systems Most of those in use today are based on the relational data model a way of representing data and data relationships using only two dimensional tables This book covers relational database theory as well as providing a solid introduction to SQL the international standard for the relational database data manipulation language The book begins by reviewing basic concepts of databases and database design then turns to creating populating and retrieving data using SQL Topics such as the relational data model normalization data entities and Codd s Rules and why they are important are covered clearly and concisely In addition the book looks at the impact of big data on relational databases and the option of using NoSQL databases for that purpose Features updated and expanded coverage of SQL and new material on big data cloud computing and object relational databases Presents design approaches that ensure data accuracy and consistency and help boost performance Includes three case studies each illustrating a different database design challenge Reviews the basic concepts of databases and database design then turns to creating populating and retrieving data using SQL

**Dynamic Oracle Performance Analytics** Roger Cornejo, 2018-12-06 Use an innovative approach that relies on big data and advanced analytical techniques to analyze and improve Oracle Database performance The approach used in this book represents a step change paradigm shift away from traditional methods Instead of relying on a few hand picked favorite metrics or wading through multiple specialized tables of information such as those found in an automatic workload repository AWR report you will draw on all available data applying big data methods and analytical techniques to help the performance tuner draw impactful focused performance improvement conclusions This book briefly reviews past and present practices along with available tools to help you recognize areas where improvements can be made The book then guides you through a step by step method that can be used to take advantage of all available metrics to identify problem areas and work toward improving them The method presented simplifies the tuning process and solves the problem of metric overload You will learn how to collect and normalize data generate deltas that are useful in performing statistical analysis create and use a taxonomy to enhance your understanding of problem performance areas in your database and its applications and create a root cause analysis report that enables understanding of a specific performance problem and its likely solutions What You ll Learn Collect and prepare metrics for analysis from a wide array of sources Apply statistical techniques to select relevant metrics Create a taxonomy to provide additional insight into problem areas Provide a metrics based root cause analysis regarding the performance issue Generate an actionable tuning plan prioritized according to problem areas Monitor performance using

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## **Table of Contents Troubleshooting Oracle Performance**

1. Understanding the eBook Troubleshooting Oracle Performance
  - The Rise of Digital Reading Troubleshooting Oracle Performance
  - Advantages of eBooks Over Traditional Books
2. Identifying Troubleshooting Oracle Performance
  - Exploring Different Genres
  - Considering Fiction vs. Non-Fiction
  - Determining Your Reading Goals
3. Choosing the Right eBook Platform
  - Popular eBook Platforms
  - Features to Look for in an Troubleshooting Oracle Performance
  - User-Friendly Interface
4. Exploring eBook Recommendations from Troubleshooting Oracle Performance
  - Personalized Recommendations
  - Troubleshooting Oracle Performance User Reviews and Ratings
  - Troubleshooting Oracle Performance and Bestseller Lists
5. Accessing Troubleshooting Oracle Performance Free and Paid eBooks
  - Troubleshooting Oracle Performance Public Domain eBooks
  - Troubleshooting Oracle Performance eBook Subscription Services
  - Troubleshooting Oracle Performance Budget-Friendly Options
6. Navigating Troubleshooting Oracle Performance eBook Formats
  - ePub, PDF, MOBI, and More
  - Troubleshooting Oracle Performance Compatibility with Devices
  - Troubleshooting Oracle Performance Enhanced eBook Features
7. Enhancing Your Reading Experience
  - Adjustable Fonts and Text Sizes of Troubleshooting Oracle Performance
  - Highlighting and Note-Taking Troubleshooting Oracle Performance
  - Interactive Elements Troubleshooting Oracle Performance
8. Staying Engaged with Troubleshooting Oracle Performance

- Joining Online Reading Communities
- Participating in Virtual Book Clubs
- Following Authors and Publishers Troubleshooting Oracle Performance
- 9. Balancing eBooks and Physical Books Troubleshooting Oracle Performance
  - Benefits of a Digital Library
  - Creating a Diverse Reading Collection Troubleshooting Oracle Performance
- 10. Overcoming Reading Challenges
  - Dealing with Digital Eye Strain
  - Minimizing Distractions
  - Managing Screen Time
- 11. Cultivating a Reading Routine Troubleshooting Oracle Performance
  - Setting Reading Goals Troubleshooting Oracle Performance
  - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of Troubleshooting Oracle Performance
  - Fact-Checking eBook Content of Troubleshooting Oracle Performance
  - Distinguishing Credible Sources
- 13. Promoting Lifelong Learning
  - Utilizing eBooks for Skill Development
  - Exploring Educational eBooks
- 14. Embracing eBook Trends
  - Integration of Multimedia Elements
  - Interactive and Gamified eBooks

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