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Coauthor of *Oracle DBA 101*, and DBA mentor for DBAmentor.com

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Oracle8i DBA Handbook

Kevin Loney
Marlene Theriault

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To my parents,
and to Sue, Emily, and Rachel

—K.L.

To the two most important men in my life:
Marc Goodman and Nelson Cahill

—M.T.

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s always, this has been a joint effort. Thanks to Marlene Theriault and Ian Fickling, who contributed so much to this edition. Writing is frequently a learning process, and they have been excellent teachers.

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If you have comments regarding the book or are looking for additional DBA materials, please see my site, http://www.kevinloney.com. As additional ORACLE8i features become available and mature, articles about them will be published on my site.

Kevin Loney

My thanks go first and foremost to Kevin Loney for inviting me to be a part of this venture and for having the unending patience to guide me through this edition's update, gently but firmly. I have learned an astonishing amount while participating in this project—both technically and personally. My thanks go also to Ian Fickling who provided the technical review for this book. His comments were always insightful and accurate.

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Marlene Theriault

Introduction

hether you're an experienced DBA, a new DBA, or an application developer, you need to know how the internal structures of the ORACLE8 database work and interact. Properly managing the database's internals will allow your database to meet two goals: it will work, and it will work *well*.

In this book, you'll find the information you need to achieve both of these goals. The emphasis throughout is on managing the database's capabilities in an effective, efficient manner to deliver a quality product. The end result will be a database that is dependable, robust, secure, extensible, and designed to meet the objectives of the applications it supports.

Several components are critical to these goals, and you'll see that all of them are covered here in depth. A well-designed logical and physical database architecture will improve performance and ease administration by properly distributing database objects. Determining the correct number and size of rollback segments will allow your database to support all of its transactions. You'll also see appropriate monitoring, security, and tuning strategies for stand-alone and networked databases. Optimal backup and recovery procedures are also provided to help ensure the database's recoverability. The focus in all of these sections is on the proper planning and management techniques for each area.

You'll also find information on how to manage specific problems, such as dealing with very large databases or very high availability requirements.

Networking issues and the management of distributed and client/server databases are thoroughly covered. SQL*Net (now known as Net8), networking configurations, snapshots, location transparency, and everything else you need to successfully implement a distributed or client/server database are described in detail in Part III of this book. You'll also find real-world examples and for every major configuration.

In addition to the commands needed to perform DBA activities, you will also see the Oracle Enterprise Manager screens that perform similar functions. In addition to descriptions of the ORACLE8i features, you will also see sections that compare prior releases to ORACLE8i, to facilitate your migration path. "Solutions" sections throughout the book offer common solutions to the most frequently encountered problems.

By following the techniques in this book, you'll no longer have to worry about disasters striking your databases. Your systems can be designed and implemented so well that tuning efforts will be minimal. Administering the database will become easier as the users get a better product, while the database works—and works well.

Contents At A Glance

PART I
Database Architecture

PART II
Database Management

Contents