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Everyday Oracle DBA

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About the Author

April Wells has a BS degree from University of Pittsburgh's School of Information Sciences and an MBA from West Texas A&M.

She is a database administrator, currently working as an Oracle Apps DBA for TEK Systems, in Austin, Texas, where she lives with her husband and two children. With over seven years IT experience to her credit, including as a COBOL and Visual Basic programmer, SQLServer DBA, Web Master, Oracle DBA, Oracle APPS DBA, Disaster Recovery team member, and Linux System Administrator, she has a varied background on which to draw.

April has spent time teaching and training, not only in her companies, but also as a guest lecturer for Database Administration and Introduction to Information Systems classes at West Texas A&M University and as an invited speaker to the Prentice Hall IT conference and International Oracle User's Group. She has to her credit several books, including *Oracle E-Business Suite 11i From the Front Lines* (CRC Press, 2003), *Grid Database Design* (CRC Press, 2005), *Grid System Application Design* (CRC Press, 2006), *Exam Cram2 Oracle 9i Fundamentals 1* (2005), and she was a contributing author of MORE Simple Internet Activities (Teacher Created Materials, 2003). She is currently working on *Disaster Recovery* for Prentice Hall and a number of e-learning classes. Further, April has authored several articles for *InformIT*, was the editor for the South Central Oracle Users Group's E-magazine, and founded the TriState Oracle Users Group.

Acknowledgments

This book, if nothing else, has been a labor of love and determination. It has been my one true constant. It has been with me through the death of my stepson (Marine Sgt. Lonny Wells) in the initial battles in Fallujah, my mom's diagnosis of cancer, three jobs, and a big move. It has been through a lot with me.

I would like to thank Rachel Carmichael and Tom Kyte for their work in tech editing the book; their comments and humor kept me centered on the project.

Lisa McClain and Alexander McDonald, thank you for all of your help and hard work on this project. I hope that we can go down this road again, albeit a little more smoothly the next time.

Most importantly, to my family … My husband, Larry, and my kids, Adam and Amandya, thank you for sticking by me and seeing me through this. It has been a long tunnel, but there is always a light at the end of the tunnel, even if it is a very long tunnel with a lot of twists and turns and you can't actually see the light most of the time. You had the faith, and gave me the faith, that the light was there even when it couldn't be seen.

Mom, I wish for you a pocket full of heart-shaped rocks and lucky stones. Now more than ever, it is time to take the time to do the important things (watch little people jump in the leaves, listen to the wind chimes, watch the dragonflies dance, enjoy a quiet cup of Chai tea).

Finally, a word to those of you who are just bored enough to be reading this part of the book. We are a hardy bunch, we in the technology field, and if I can do it (break out of the mold, follow my dream), so can we all. I hope that this book will inspire just one person to think outside of the box, to look

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at the technology that we have been handed and see it through different lenses, from a different perspective, and apply it to a different set of circumstances.

Introduction

here are a lot of good Oracle books out there. If you're a beginner there are books like *Oracle 9i DBA 101* from Oracle Press. If you're an advanced DBA there are always things like *Oracle: The Complete Reference*. But what if you're somewhere in between? You've been working as a DBA for a while and you know how to do the basics but you're nowhere near an expert at tuning or user management. Where do you turn then? You can't turn to your mother; she probably can't help you, although she may be able to offer you a shoulder to pound on when you get frustrated enough to want to chew rocks. You can't turn to your boss; heck, she probably thinks you are the greatest thing in the world and we know we don't want to disillusion her! You might be able to turn to some of your peers, but what happens when they just look at you and roll their eyes? I mean really, someone of your experience asking a question like that? But we all ask questions like that. Sometimes we ask them out loud, sometimes we ask them in our own heads (we don't want to look crazy talking to ourselves, do we?), but we all ask them.

The book you hold here before you is one thing that I hope will answer the questions that you ponder. What I've tried to do here is provide a mix of things I've either used or seen used, things I've read on the net or in a listserv, things I've groveled and begged for from other people (and gave them credit for), and general stuff served up for your enjoyment

Some of the stuff here I have played with for years; other stuff I am in the process of playing with and learning day by day. I have tried thoughout to keep things in a format that can be used in all supported Oracle versions. In short, it's a general compendium of stuff to make your everyday job easier and more productive, maybe even a little more fun.

If you're a real beginner, thank you for your support in buying this book and your faith that it will bring you knowledge. If you are reading it at your favorite bookstore, enjoy, but you might be better off looking towards something more easily digested and lower level in some cases. I can highly recommend either *DBA 101* or *Effective Oracle by Design*. Both are very good books—one will help you in your day-to-day life as a DBA; the other will help you with understanding how to best design your system(s).

If you are a member in good standing of the Oak Table Network, I am deeply honored that you believe that you can learn something from me.

This book assumes that you have some working knowledge of how to do a DBA's job and are looking for ways to make it easier. I assume that you have access even to a playground environment and that you can pick up SQL*Plus and play to your heart's content if you see something that interests you.

Okay then, sit back, relax, grab a cup of coffee (no, don't put it in the cup holder on your computer, that is where you hide your music CDs when the boss is coming) and let's take a look at what's coming up. In Chapter 1, "Making It Work," we will look at the day-to-day mundane tasks that you face. Things like checking space usage, user management, basic security, starting and stopping, creating a database, and other everyday tasks. The things we have to do every day to keep things running and interacting somewhat smoothly and to keep people from actually knowing that we exist.

In Chapter 2, "Getting Things Done," we'll discuss writing code, connecting, creating packages and procedures and using the built-in ones, and when to wrap your code and when not to. We'll also take a look at tuning your code whenever you have the ability to tune.

Chapter 3, "Saving It and Bringing It Back," will deal with backup and restoration and the various ways to do both. Remember, a backup isn't any good if you can't restore from it. We'll cover point-in-time recovery and other ways to bring back, clone, or otherwise copy your databases.

Chapter 4, "Database Tuning: Making It Sing," will take us on a magic carpet ride through the wonderful world of database and query tuning. We'll look at the various methods to find and fix problems and when to use each. We will take a brief look at changing the initialization parameters, various kinds of traces and how to figure out what the traces are telling you.

Chapter 5, "Database Down! Bring It Back Alive!," deals with troubleshooting both end user problems and database problems—things like what to do if it doesn't restart, how to recover, and how to deal with user panic. We don't,

however, cover how to deal with your panic. For that, you will need to deal closely with your friendly neighborhood therapist.

Chapter 6, "High Availability," looks fleetingly into the wonderful world of high availability, from simple things that you can do every day to make your life easier and your users happier (like online table reorganization) to architectural changes (like RAC and Data Guard).

Chapter 7, "Other Stuff," takes a look at things outside the database itself, like OEM and OAM, Apps servers, and other front ends. While not strictly DBA tasks, they do impact how we do our jobs and how easy those jobs are. Besides, the friendly voice of experience tells us that you never can tell when you will be called upon to be the expert in one of these areas, and having some working knowledge of them will make you sound like you know what you are talking about.

And finally in Chapter 8, "Will It Work?," we take a look at testing: what it is and isn't, the various kinds of testing, and what they can and cannot tell you about your database and your applications. And maybe how it can help you find out where things will break before they break in real life.

This book is an adventure. It is more than a reference, it is a way to discover what you knew you knew but forgot you knew, and a way to discover what you didn't know you didn't know or to find new ways of thinking about things. Hang on, and have fun. This is only the beginning.

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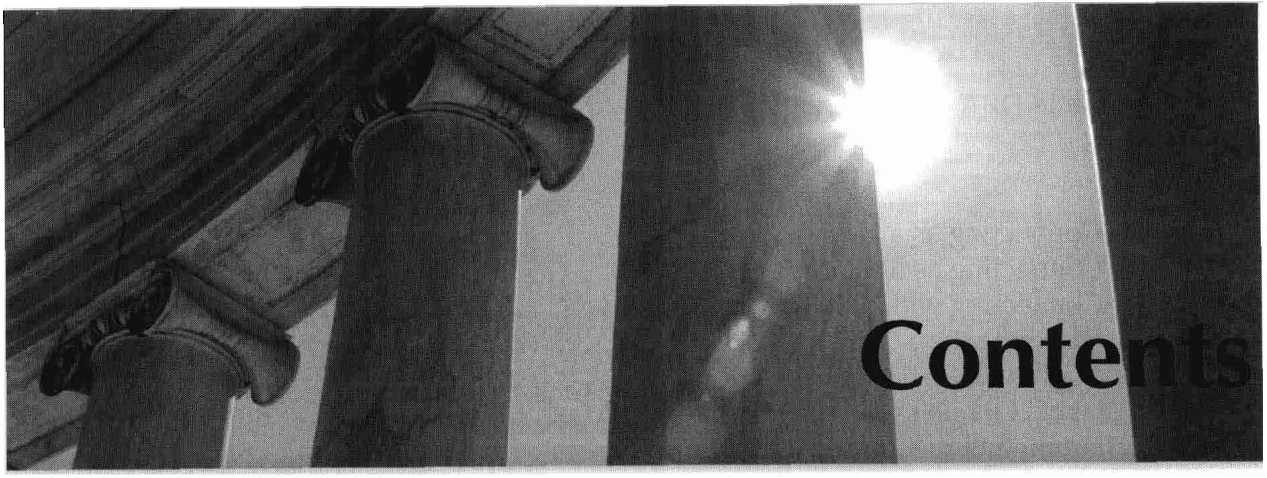

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