

ORACLE®

VOLUME X/NUMBER 6

M A G A Z I N E

NOVEMBER/DECEMBER 1996/\$4.95

**Designing VLDBs ■ Managing
Multiple Joins ■ New Oracle
Database Designer Tool ■
IKEA: Distributed by Design**



**vldb
RULES**

MEASURING UP:
BREAKING THE
PETABYTE BARRIER



0 74470 86614 5

FROM THE EDITOR

9

Managing Growth and Change

by Julie B. Gibbs

INDUSTRY INSIGHT

13

What Is an Operational Data Store?

by Wayne Eckerson

128

If I Had a Hammer (or a Wrench ...)

by Sara Chambers

PRODUCT NEWS

19

Oracle's Network Computing Architecture, Oracle Enterprise Manager Release 2.1, Database Designer, Oracle Road Map to Microsoft Windows NT, Oracle Applications Release 10.7, and much more.

ORACLE MAGAZINE

(ISSN 1065-3171)

is published bimonthly with a free subscription price by Oracle Corporation
500 Oracle Parkway, Box 659952, Redwood Shores, CA 94065-1600.

Oracle Magazine is mailed at Periodicals Postage Paid at Redwood City, CA and additional mailing offices.

POSTMASTER: Send address changes to: Oracle Magazine, 500 Oracle Parkway, Box 659952, Redwood Shores, CA 94065-1600

© Oracle Corporation 1996
All rights reserved.

No part of this publication may be reprinted or otherwise reproduced without permission from the editor. Oracle does not provide any warranty as to the accuracy of any information provided through Oracle Magazine. Oracle shall not be liable for any damages incurred as a result of reliance on any information provided herein.

Various products or services referenced herein may be trademarks or registered trademarks of Oracle Corporation. For a full listing of Oracle trademarks and registered trademarks, call +1-555-506-5100 or e-mail your request to trademark@us.oracle.com

vldb RULES

48 Breaking the Petabyte Barrier

by Philip Gill

Very large databases are like skyscrapers: By necessity, design, or inspiration, architects manage to keep building them bigger and bigger—by conservative estimates, databases double in size every year. As technology makes this growth possible, business needs make it imperative. How do you prepare for the day your database breaks today's size limits? What tools available today will help you build for tomorrow?

52 Most Successful VLDB Tactics

54 Latest Hardware Architecture

56 Newest Oracle Server

57 Best Way to Measure

58 Most Useful Tool

60 Strongest Customer Focus: UK's Abbey National Bank

62 Best Case for Health: 3M Health Information Systems

ILLUSTRATIONS BY MICHAEL SCHWAB

DATABASE ADMINISTRATION

65

Designing VLDBs for High Availability

By Deepak Gupta and Erik Peterson

High availability for very large databases comes at a cost. Here's how to accurately assess your uptime needs and balance the cost of downtime with the cost of your backup-and-recovery scheme, for a system that works for you 100 percent of the time.



DEVELOPMENT

75

The Oracle InterOffice Connection

by Georges van Hoegaerden

If you've been assigned the task of setting up a collaborative environment for your organization, what questions do you need to ask? What processes do you need to consider? Once you've determined the goals, Oracle InterOffice will help you get there.

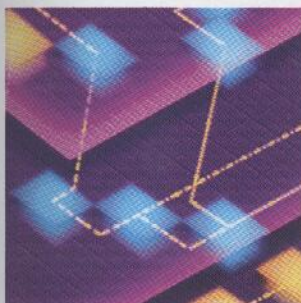
.....
METHODOLOGY

81

Managing Multitable Joins in a Growing Database Environment

by Eyal Aronoff

As the size of your database grows, a few SQL statements can appear to eat up all your hardware resources. Chief among the greedy culprits are statements containing multi-table joins. Here's how to tune these statements from hell for the benefit of your system—and your users.



APPLICATIONS

91

Multilingual Oracle Human Resources TOSC

By Andrew McGhee and Mark McGloughlin

When various branches of Motorola's European operations requested a Human Resources system in their local languages, Motorola and Oracle went to work developing a multilingual solution. Take advantage of their efforts in your global operations.



34 Distributed by Design

by Chris Rauert

Something hot is cooking in the home-furnishings retail market. From humble beginnings in Almhult, Sweden, IKEA has become the world's largest home-furnishings retailer, with more than 120 stores in 25 countries and an active stock of more than 12,000 items. Global sales exceed \$5 billion. With Oracle Server as its standard cookbook and Oracle Developer/2000 and Designer/2000 as the main ingredients for change, IKEA North America's distributed-computing model is helping the company grow its market share and streamline its global operations.

42 Timber!

by Jill Donley Rege

Forestry workers often operate alone, in isolated areas. Being out of touch with the home office can make timber harvesting no more than educated guesswork—dangerous and cold work, at that, if you work in a country such as Sweden. But at AssiDomän, every harvesting and transport machine will soon be equipped with modified PCs connected to headquarters via Oracle Mobile Agents for remote mobile communications and data exchange, cutting production time instead of extra trees and improving customer service.



.....
CLIENT/SERVER

101

Oracle and the New Millennium

by Steve Bobrowski

Wise DBAs are preparing now for the year 2000. Fortunately, that's a simple task for most Oracle users.



OPERATING ENVIRONMENTS

107

MAINFRAMES

Leverage Your Investments in IMS Applications

TECHNICAL SUPPORT

111

Database Shutdown/Startup Kit

VALUE ADDED

116

USER GROUPS

118

CAREER MARKETPLACE

119

ADVERTISERS INDEX

127