

# ORACLE®

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M A G A Z I N E

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## MULTIMEDIA SERVERS SHAPING THE FUTURE

ONLINE FREE SPACE  
DEFRAGMENTATION

GEOGRAPHIC  
INFORMATION  
SYSTEMS





## COVER STORY



### 20 Multimedia Servers: Shaping Information for the Future

BY JULIE B. GIBBS AND DON TYLER

As business users and consumers alike demand more and better access to information from a variety of sources and datatypes, the need for a multimedia server becomes paramount. The multimedia server turns raw data—text, image, audio, video—into useful, usable information. This section offers an overview of multimedia server requirements and profiles two leading organizations that are paving the way toward true multimedia information management.

#### ABOUT THE COVER:

Lance Jackson of Lax Syntax Design, Berkeley, CA, created the cover illustration. The main image is a video capture transferred to the Macintosh. Lance created separate images for each block in Adobe Photoshop, using digital scans, video captures, and screen captures. We output the RGB digital file as color transparency film, which was scanned and returned to us as a CMYK digital file. Nancy Gottesman made refinements in Photoshop and placed the final image into Aldus PageMaker.

### 25 Tennessee Valley Authority

BY JILL DONLEY

The Tennessee Valley Authority (TVA) provides electricity, jobs, and community development in seven states in the U.S. With government monopolies being replaced by open markets, TVA must prepare to face a more competitive environment. Key to the Authority's survival—and success—is the integration of an Oracle Office-based electronic mail system that links TVA's myriad plants, offices, and suppliers.

### 27 Derwent Publications

BY DON TYLER

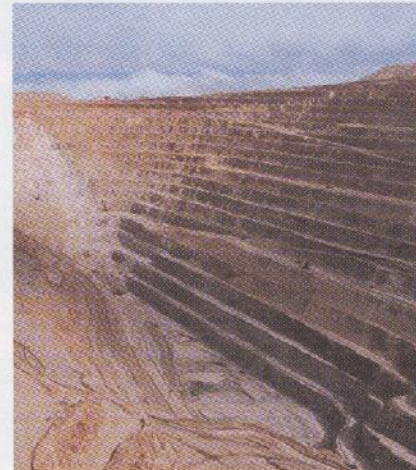
Derwent Publications, Ltd. has been a worldwide presence in patent publishing since 1964. The company collects text and image information for nearly 16,000 new patents every week. As new technology rewrites the publishing business, Derwent uses a SQL\*TextRetrieval application and an Oracle database to store, index, and manipulate text and image files.

## APPLICATIONS

### 32 Mining Information

BY KATHLEEN KERRIGAN AND MARC WEBER

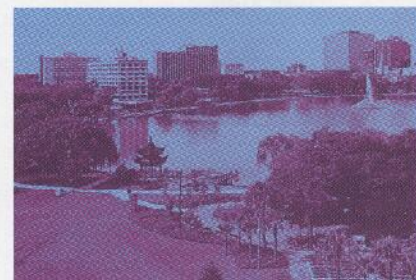
In the high Andes Mountains in South America, Chile's Codelco operates the Chuquicamata copper mine—the largest copper mine in the world. To support its around-the-clock operations, Chuquicamata moved to open networks and distributed client/server architecture.



### 38 Mapping the Future

BY CHRISTOPHER RAUEN

Florida's Orange County offers expanded services to its businesses and residents in a time of economic cutbacks. How? County offices cooperated to build a sophisticated, Oracle based geographic information system (GIS) that minimizes paperwork and redundancies, eases application development, and enables the municipal government to cost-effectively manage resources.



## PERSPECTIVES

### 7 The Impact of Power Tools on Application Software Development

BY DARLENE BROWN, GARTNER GROUP

Today's applications must be strategic solutions that provide competitive advantages for core business processes. These business process automation (BPA) applications demand a new set of "power tools," a new breed of application developer, and an integrated, layered application development environment (ADE).

### 120 Software Fosters Growth in Eastern Europe

BY ESTHER DYSON, PRESIDENT, EDVENTURE HOLDINGS

Newly opened computer markets in Central and Eastern European countries are growing rapidly. A maturing database and systems integration market supports growing application expertise as local vendors localize, customize, and support new software applications.

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43 Driving

BY IRW

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- 43 Driving Toward the Digital Highway

BY IRWIN GREENSTEIN

*What are the implications of building an information highway as the world moves toward the digital age? This article examines the technology that enables advanced digital communications and looks at the emerging class of information appliances and services that will exploit this new paradigm.*

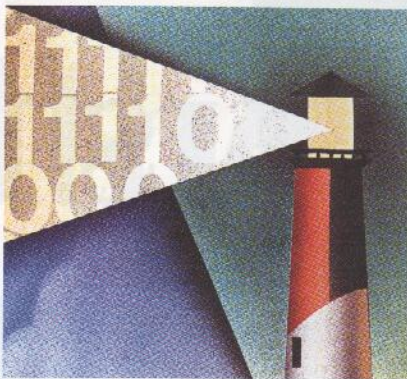


### USER HELP

- 55 Online Free Space Defragmentation in Oracle Version 6

BY KEVIN M. LONEY, ASTRA/MERCK

*Fragmentation of free space extents in an Oracle tablespace leads to performance and allocation problems and requires tablespace rebuilds. This article offers a fragmentation index to determine whether your tablespace will benefit from a free space rebuild and supplies a utility for automating free space defragmentation.*



- 63 Realtime Data Monitoring with Oracle Graphics V2.0 and Oracle7

BY RUSS SELIGMAN, ORACLE TOOLS AND MULTIMEDIA DEVELOPMENT

*Oracle Graphics allows users to create applications that incorporate graphical data—charts, drawings, and other visual elements. This article provides an example of a data monitoring application that gives a visual picture of realtime sales information.*

### METHODOLOGY

- 69 Process Visualization

BY JOHN BARRETT, ORACLE CONSULTING

*Successful business process reengineering (BPR) requires a powerful vision of the future. Getting the vision right, however, can be a stumbling block. This article describes the elements of process visualization—exercises that involve written, graphical, and verbal forms—and offers a case study of process visualization at work.*

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