Oracle8*i*™ *inter*Media

Features Overview
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PRODUCT SUMMARY

Oracle8*i* *inter*Media is a product that enables Oracle8*i* to manage text, documents, images audio and video in an integrated fashion with other enterprise information. It extends Oracle8*i* reliability, availability and data management to text and multimedia content in Internet, electronic commerce and media-rich applications.

Oracle8*i* *inter*Media enables open, standard SQL access using native text, image, audio and video data type services, operators and metadata management. It includes Internet support for popular web authoring tools, popular web servers, online Internet-based geocoding services for locator applications and powerful text search features. Leading vendors of electronic document archiving, media asset management, electronic commerce and Internet publishing applications are choosing Oracle8*i* *inter*Media to build reliable and scalable solutions with Oracle*8i.*

ORACLE

INTEGRATING DIGITAL MEDIA WITH ENTERPRISE DATA FOR COMPETITIVE ADVANTAGE

Multimedia content can quickly and intuitively convey huge amounts of information. Applications such as web publishing, e-commerce and media asset management have dramatically increased demand for the generation and consumption of text, documents, pictures, sounds, music, speech and video.

ORACLE8*i interMEDIA* SUPPORT FOR TEXT

Oracle's award-winning ConText® option is now included with *inter*Media to deliver powerful text-retrieval capabilities fundamental to web applications. Oracle8*i interMedia* text management capabilities let users query documents stored in common formats, including Word, Excel, PowerPoint, WordPerfect, HTML and Acrobat/PDF and to seamlessly combine the text information with regular database information. Oracle8*i interMedia* indexes the text content to deliver fast, accurate, flexible analysis and retrieval of information in document archives, online newsfeeds, customer call reports and other online text information sources.

Oracle8*i interMedia* Text Features Include

- *Powerful Full-Text Search* - Allows users to perform a variety of text-data searches including Boolean, exact phrase, proximity, section searching, misspellings, stemming, wildcard, thesaurus word equivalence, and scoring.
- *Theme Search* - Compliments full-text search and allows users to search for documents by their theme-content as well as their text-content.
- *ANSI-standard SQL Support* - Makes text queries straightforward from any tool or environment that supports SQL or PL/SQL™.
- '*Mixed Search* - Allows a single SQL query to search for document text and themes as well as information in regular database columns.
- *Document Analysis* - Identifies the strongest themes in a document as well as generates document summaries by theme.
- *Native Document Format Support* - Indexes documents stored in all common formats including ASCII text, Word, Excel, PowerPoint, WordPerfect, HTML and Acrobat/PDF.

- *Viewing* - Converts documents to HTML format for simple viewing in a browser; also allows highlighting of search words and themes.

- *Globalization* - All text search and analysis capabilities are available in English. Many services also support other languages and include additional features to support language-specific needs, such as text indexing, text querying, and base-letter support.

ORACLE8*i* *inter*MEDIA SUPPORT FOR AUDIO, VIDEO AND IMAGE

Oracle8*i* *inter*Media provides foundational support for image, audio and video data types. For the first time, the security, administrative controls, performance, scalability and open access of professionally managed enterprise information systems is available to multimedia content stored in corporate websites and media-rich applications.

This creates opportunities to share, re-purpose and integrate these media assets with traditional relational data and operational systems.

Audio Features Include

- Client-access via Java™ Media Framework (JMF): This allows any JMF player and *inter*Media to access and play audio files within an application.

- Audio files are stored in or referenced from Oracle8*i* using *inter*Media and delivered through any streaming server such as Oracle® Video Server and the RealAudio™ Server. Sample code is provided.

- Portable client-access components are written in Java.

- Management of audio data from a variety of sources both within Oracle8*i* and from external storage (e.g., Bfiles, LOBs, URLs, or specialized servers).

- Basic parsing of AUFF, AIFF, AIFF-C and WAVE formats.

- Support for popular web authoring tools, such as Oracle® WebDB, Symantec® Visual Page, Microsoft® Front Page.

- Support for drag and drop of audio data through the *inter*Media clipboard with automatic generation of URL links to Oracle8*i*. The interMedia clipboard supports audio input devices supported by Microsoft Windows.

Native support for web-based applications that use Oracle® Application Server/WRB, Microsoft IIS/ISAPI, Netscape Server/NSAPI, and support for all HTTP-compliant web browsers.

Video Features Include

- Client access via Java Media Framework (JMF). This allows any JMF player and *inter*Media to access and play video files within an application.
- Video files stored in or referenced from Oracle8*i* using *inter*Media and delivered through any streaming server such as Oracle Video Server and the RealVideo™ Server. Sample code is provided.
- Portable client-side access components written in Java.
- Management of video data from a variety of sources both within Oracle8*i* and from external storage (e.g., Bfiles, LOBs, URLs, or specialized servers).
- Support for popular video formats such as AVI, QuickTime, and MPEG.
- Support for popular web authoring tools, such as Oracle WebDB, Symantec Visual Page, Microsoft Front Page.
- Support for drag and drop of video data through the Oracle8*i* *inter*Media clipboard with automatic generation of URL links to Oracle8*i*. The Oracle8*i* *inter*Media clipboard supports video input devices supported by Microsoft Windows.
- Native support for web-based applications that use Oracle Application Server/WRB, Microsoft IIS/ISAPI, Netscape Server/NSAPI, and support for all HTTP-compliant Web browsers.

Image Features Include

- Support for popular image and compression formats, such as Tiff, GIF, CCITT, JPEG.
- Support for Live Picture FlashPix format server.
- Simplified Java and C++ access to images stored in Oracle8*i* using Oracle8*i* *inter*Media.
- Managed images from a variety of sources both within Oracle8*i* and from external storage (e.g., Bfiles, LOBs, URLs, or specialized servers).
- Metadata extraction from image header information, conversion among image and compression formats. Support for non-standard and custom image formats through a raw pixel format.
- Direct access to pixel data in an image.
- Support for basic manipulation functions including scaling and cropping.
- Support for popular web authoring tools, such as Oracle WebDB, Symantec Visual Page, Microsoft Front Page.

- Support for drag and drop of image data through the Oracle8*i* *inter*Media clipboard with automatic generation of URL links to Oracle8*i*. The Oracle8*i* *inter*Media clipboard supports Microsoft Imaging for Windows, providing universal access to TWAIN-complaint still image input devices such as digital cameras and scanners, as well as Internet, file system and Windows clipboard sources.

- Native support for web-based applications that use Oracle Application Server/WRB, Microsoft IIS/ISAPI, Netscape Server/NSAPI, and support for all HTTP-compliant web browsers.

ORACLE8*i* *inter*MEDIA SUPPORT FOR LOCATOR APPLICATIONS AND ONLINE GEOCODING

Oracle8*i* *inter*Media supports Internet applications that help users locate stores, offices and distribution points, for example, based on their distance from a given zip code or address. This key feature is handled through support for online geocoding services and for proximity queries. The ability to analyze and explore the physical relationships within business information significantly enhances a broad range of Internet applications.

Oracle8*i* *inter*Media Includes the Following Locator Features

Geocoder Support - Geocoding is the way addresses and other locations (postal codes, demographic regions, etc.) are represented which enable distances to be calculated and sites to be represented on maps in Web, data warehousing, customer information systems, and enterprise resource planning applications. Oracle8*i* *inter*Media can use these geocoding services to add the exact location (latitude/longitude) associated with information — such as postal (zip) codes, phone numbers, census blocks or sales territories — to existing data files stored in Oracle8*i*. Oracle8*i* *inter*Media supports the leading online geocoding services, including Centrus™ from QMSoft and MapMarker™ from MapInfo. It also supports server-based geocoding and data scrubbing operations for data warehouse applications.

Location Queries - Oracle8*i* *inter*Media adds support for simple location queries to Oracle8*i.* This allows Internet applications like MapXtreme™ from MapInfo and other applications to retrieve information based on distance. Once address records are geocoded, Internet applications that identify businesses, customers and landmarks based on distance can be rapidly deployed. Using simple query-by-text or query-by-map operations, a web browser-based application can find the nearest location (restaurants, hotels, and subway stop) within a given distance from a specific address or point on a map. Other examples include:

- Find all ATMs within one mile radius, return their (text) address;
- Find all ATMs within one mile radius, return their point locations (coordinates) plotted on map.

ORACLE8*i* *inter*MEDIA SUPPORT FOR WEB APPLICATION DEVELOPMENT

Oracle8*i* *inter*Media, combined with Oracle and partner application development tools, delivers a powerful, enterprise-level web application development and deployment platform. Oracle8*i* *inter*Media can be used with popular web-authoring tools to give content creators a complete solution for publishing their own documents on the Web. Content creators have a choice of tools for Oracle8*i* *inter*Media including Oracle WebDB, Symantec's Visual Page and Microsoft Front Page. These tools build dynamic web applications and content-driven web sites which use Oracle8*i* to provide a scalable, reliable, and secure server for all web content.

The Oracle® Enterprise Developer Suite and JDeveloper™ Suite also use Oracle8*i* *inter*Media capabilities for the design, development and implementation of powerful multimedia applications. Oracle8*i* is the only database available offering this complete integrated solution for Web information management.

Oracle8*i* *inter*Media includes native support for web-based applications that use Oracle Application Server/WRB, Microsoft IIS/ISAPI, and Netscape Server/NSAPI. Oracle8*i* *inter*Media supports all HTTP-compliant Web browsers. Oracle8*i* *inter*Media supports Microsoft Imaging for Windows, providing universal access to TWAIN-compliant still-image input devices. *inter*Media also supports audio and video input devices supported by Microsoft Windows.

ORACLE8*i* *inter*MEDIA TECHNOLOGY ARCHITECTURE: THE ORACLE8*i* EXTENSIBILITY FRAMEWORK

The foundation for Oracle8*i* *inter*Media is the Oracle8*i* extensibility framework, a set of unique services that enable application developers to model complex logic and extend the core database services (optimization, indexing, type system, SQL language, etc.) to meet the specific needs of an application. For example, an application designed to analyze and retrieve pharmaceutical products based on similar chemical structures may require a search engine that can compare molecular models. The extensibility framework can be used to develop this class of application.

Oracle has used these unique services to provide a consistent architecture for the rich datatypes supported by Oracle8*i inter*Media.

Features of the Extensibility Framework Include

- *Object Type Support* - Supports user-defined object types consisting of attributes and methods.
- *Extensible Indexing* - Enables fast, scalable querying, access to and retrieval of application-specific data based on characteristics and attributes important to the application. This is accomplished by allowing indexes to be created on these attributes that the database optimizer can use. For example, if understanding how much red is in an image is important to the application, extensible indexing can be used with applications that analyze color content in images to put an index on the color red, thus dramatically improving the performance of the application.
- *References* - Supports references to row objects with globally-unique object IDs that capture references between row objects and automatically index them for fast access.
- *Collections* - Supports collections, both ordered and unordered, in the form of variable-length arrays and nested tables, with optimized access to collection data.
- *Object Views* - Synthesizes objects from relational data and enables access and manipulation of relational data, as if such data were stored as objects.
- *Integration with Relational Functionality* - Supports standard relational functionality, like queries (SELECT…FROM…WHERE), fast commits, backup and recovery, scalable connectivity, row-level locking, read consistency, parallel server, etc., and works seamlessly with objects.
- *SQL, PL/SQL, Oracle® Call Interface, and Pro*C Object Extensions*

ORACLE8*i* *inter*MEDIA: A SCALABLE SYSTEM BUILT ON ORACLE8*i*

Oracle8*i* *inter*Media is fully integrated with Oracle8*i* to capitalize on all of the attributes of the Oracle server that support business-critical 24x365 applications. This is a significant departure from the traditional approach to managing digital media information in proprietary data-stores where there is a tight link to a specific application, or in generic file systems and offline in physical storage.

Information stored in Oracle8*i* can be accessed by hundreds of thousands of users. It can be shared securely across multiple applications and can be developed using hundreds of leading programming languages and tools. Oracle8*i* includes replication facilities, proven tuning, management and administration technologies to manage terabytes of information. It delivers this information with unsurpassed reliability assuring that whenever information is needed, it is available to the people who depend on it. Oracle is the undisputed leader in managing the critical information used by enterprises around the world.

As web applications become critical to the business processes and revenue generation of global enterprises, the multimedia content essential to these applications requires the same support as other business data. Oracle8*i* *inter*Media now makes this possible.

ORACLE8*i* *inter*MEDIA FOR PARTNER APPLICATIONS

Oracle8*i* *inter*Media provides fundamental services required by web and other applications which demand the use of rich datatypes. Oracle8*i* *inter*Media presents application providers with a unique opportunity to enhance and differentiate solutions by incorporating media, text, and locator services to traditional applications. Media and text-rich applications like digital archives, media asset management, customer care and document and image management benefit because application systems are easier to integrate with enterprise systems, easier to manage, easier to implement across the enterprise and on the Web, and are more scalable and less costly to support. Partners benefit from lower software development costs by eliminating unique application code needed to handle complex datatypes.

ORACLE8*i* *inter*MEDIA CONSULTING SERVICES

Oracle Consulting has specialists focused on the needs of customers and partners who for the first time are using Oracle8*i* *inter*Media to apply the principles of database management systems to image, audio, video, and text information previously stored in file systems or in physical storage. Oracle Consulting can also assist in the development of applications built on Oracle8*i* *inter*Media in the areas such as electronic document archiving, media asset management, hardcopy and Web publishing, and Web-based electronic commerce.

ORACLE8*i* *inter*MEDIA: AN ESSENTIAL COMPONENT FOR MODERN APPLICATIONS

Global competition and advances in information technology have raised the bar for business applications, demanding enterprise-wide management of the rich and diverse forms of information used in running an enterprise. This includes managing the information used by employees for their needs and in performing their jobs, and the information required by partners and customers to do business. It also requires powerful ways to locate this information in a timely fashion.

Competitive advantage can be achieved by integrating the management of this information with a powerful database management system. Integration with the database gives security, performance, scalability and a virtually universal information management-based application development platform.

Oracle8*i* *inter*Media provides a powerful collection of information management and location facilities to achieve this. Oracle8*i* *inter*Media text capabilities deliver full-text and theme search to locate text-rich documents or other media-rich information quickly through their textual meta-information. Oracle8*i* *inter*Media image, audio and video capabilities allow the digital information in these forms to be integrally managed within Oracle8*i*, as well as provide consistent access to external media information. Oracle8*i* *inter*Media locator capabilities support Internet applications that help users locate stores, offices, and distribution points, for example, based on their distance from a given zip code or address. Together, Oracle8*i* *inter*Media capabilities make Oracle8*i* a robust platform for developing enterprise-wide content management and web site data stores.

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