Oracle Discoverer™

Explore New Dimensions

ORACLE®

Enabling the Information Age™

Oracle Discoverer

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Oracle Discoverer is part of Oracle's suite of Decision Support Systems tools. It is an intuitive ad hoc query, reporting, exploration, and web publishing tool that enables business users at all levels of the organization to gain immediate access to information from relational data warehouses, data marts, or online transaction processing systems. The User Edition provides superior ease of use, unsurpassed performance, and powerful data exploration via drill-anywhere capabilities, pivoting, and charting. The Administration Edition provides an easy-to-use interface for the setup and low maintenance of the powerful server-based meta layer (End User Layer™). The End User Layer hides the complexity of data structures and drill relationships from end users who need to focus on business, not data, issues.
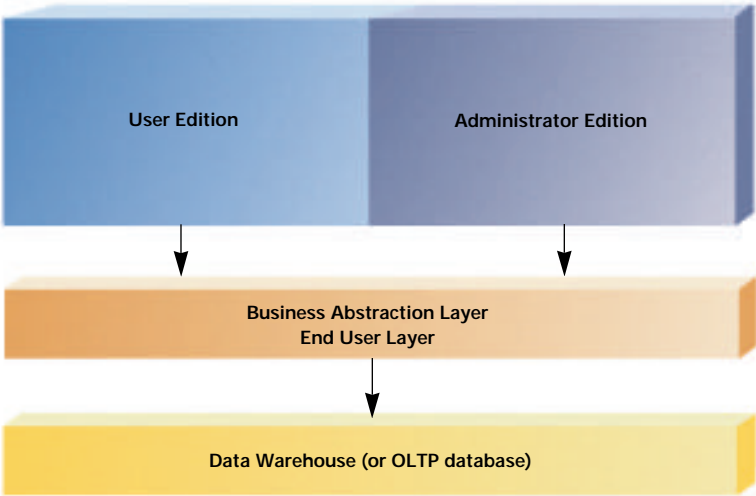

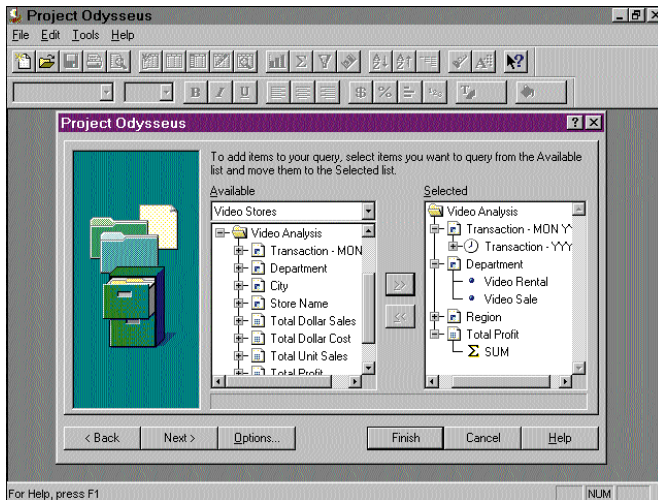**Figure 1** *Oracle Discoverer Architecture*

Figure 2 *Superior ease of use - wizard interface*

Use the powerful integrated charting to show data trends and exceptions more rapidly than numbers. Drill down through charts to view specific trends more closely.

Performance for the Data Warehouse

Oracle Discoverer provides maximum performance for ad hoc queries, drill, and pivoting on both the client and server side. Use the expert SQL query engine to dynamically generate performance-optimized SQL queries. Non-blocking queries allow other tasks to be run while a query is executing, improving productivity for end users. The incremental array fetch reduces user frustration by providing immediate response times and reducing networking traffic.

Resource Control

Like all other tools, Oracle Discoverer provides a resource governor to stop long-running queries and to control resource usage. In addition, Oracle Discoverer provides a unique query prediction capability that tells you before you run the query how long the report will take **(Figure 3)**. This automatically reduces user frustration and gives the user direct control over which queries to run.

Superior Ease of Use

As a result of extensive usability testing and end user input from the outset of development, Oracle Discoverer is recognized as the easiest to use ad hoc query, reporting, and analysis tool on the market today. Gain immediate access to information using the advanced step-by-step wizard interface **(Figure 2)**. Extensive help, cue cards, and industry-specific computer-based training provide additional assistance. The sophisticated, server-based End User Layer completely removes database and SQL complexity. Store complex conditions as part of the End User Layer to provide users with access to information without their having to understand Boolean logic.

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Automatic Summary Redirection

In a data warehouse, large volumes of data are pre-summarized to improve performance characteristics. When you request information from a large-volume detail table, Oracle Discoverer automatically (and transparently) redirects your requests to the pre-summarized table. Using a sophisticated algorithm, Oracle Discoverer does not require exact matches between your query request and the summarized tables available. Using advanced technology it uses the closest match that exists, and seamlessly aggregates within the hierarchy. It also allows users to reduce the number of summary tables needed and improves query performance.

Figure 3   *Resource control - query prediction*

ResultsBase Architecture

The ResultsBase client cubic cache compresses and indexes retrieved data to enable rapid drilling and rotation on the client without repeated access to the database server. Oracle Discoverer utilizes the bitmapped indexing and star query functionality of Oracle7™ to further support data warehouse sites.

Flexible Warehouse Exploration

Use the Oracle Discoverer drill anywhere and pivoting capabilities to explore the information in your data warehouse. The drill architecture in Oracle Discoverer allows you to slice-and-dice your data to view results in different ways, giving you a complete and accurate picture of your business without writing complex SQL.

Low Maintenance End User Layer

Use the intuitive, wizard-based interface of the Administration Edition component to make query building and analysis even easier for end users.
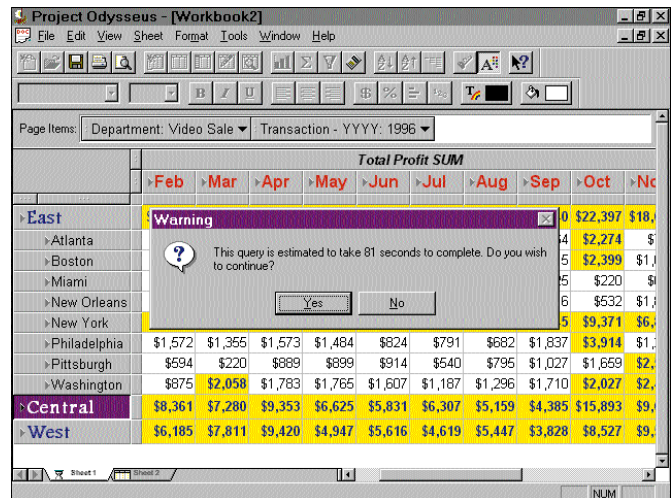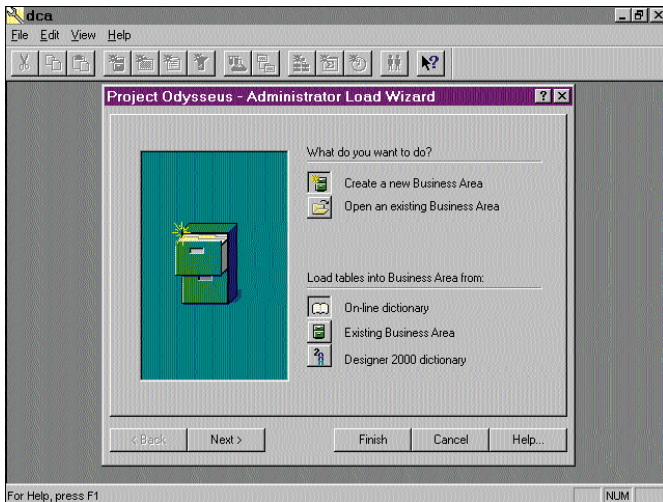
Figure 4 *Low maintenance end user layer - single-button load*

Single Button Load

Setup and ongoing maintenance of the End User Layer is minimal and less time-consuming as a result of the extensive default capabilities and single button load (Figure 4).

Designer/2000™ Integration

Protect your investment in Oracle Designer/2000 by automatically loading definitions from Designer/2000 into the End User Layer. Ensure one central source system for all data definitions in Oracle Designer/2000, and use the powerful refresh option to update Oracle Discoverer and keep consistent meta layers.

Server Based Scalability

Use the power of the centralized database server to provide scalability and security. Reduce administration time further when utilizing the automatic summary table maintenance feature.

User Edition—Ad hoc Query, Reporting, Drill, and Web Publishing

Oracle Discoverer empowers end users to create queries and reports, and to perform powerful exploration without understanding SQL or database structures. The End User Layer is the translation mechanism that provides this functionality.

Create Powerful Queries

Building queries with the User Edition is a straightforward and intuitive task. Select the data required and alter the layout of the worksheet directly by dragging and dropping. Build conditional filters and calculated items using the intuitive step-by-step wizard interface. Never worry about data types, parentheses, function names, or data values.

Comprehensive Reporting

Use standard report templates (tabular, cross-tabular, group sort or break, and master detail) to satisfy your business needs. Bring data to life visually using a variety of font styles, sizes, and foreground and background colors applied to headings and data.

4

Exception Reporting

Place exception bands on large data sets to easily identify ranges of interest, and produce a traffic-lighting effect by highlighting specified data with colors. Move seamlessly to enterprise-wide reporting utilizing the tight integration with the reportbuilder of Oracle Developer/2000.™

Flexible Exploration

The extensive drill functionality provides drill between items, drill up and down hierarchies, and the unique ability to drill from summary to detail (Figure 5).

Just-in-time Drilling

Use Oracle Discoverer's unique concept of just-in-time drilling to retrieve only the information you need, at the time you need it. Conditional drills allow retrieval of small, specific amounts of information—improving performance and reducing network load.

Clearly see multiple levels of drill results using the most extensively tested interface available today. View your data by year, quarter, country, region, and numerous other parameters using one consistent interface.

Date Drills

Seamlessly drill from year to quarter to month. Tight integration with the date structures from the database mean specific date columns do not need to be created to perform date exploration.

Expand Drills

Break out of the default hierarchy structures provided by the End User Layer by defining your own drill paths as you explore. Using the same consistent interface, choose the information you would like to see next.

Summary to Detail Drills

Today's tools provide the ability to drill through summarized data. Oracle Discoverer extends this in a unique fashion by seamlessly drilling from summary information to view detail transactions. See a profit increase in December 1996 in the South, and drill to the individual detail orders, stored within a different table, to find out why this occurred (Figure 5).
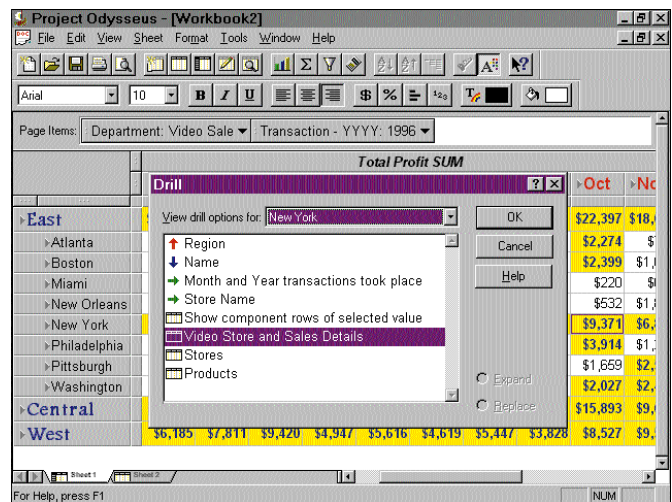

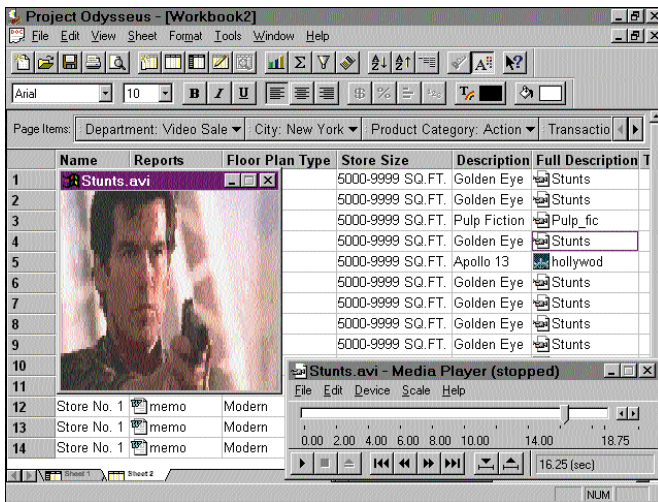
Figure 5 *Summary to detail drills*

Figure 6 *Drill out to supporting applications e.g., video clips*

Figure 7 *Business charting - view trends and anomalies in your data*

Drill out

Extend your drilling capabilities and drill out of your data to a supporting application such as a video clip, sound file, text file, word processor or spreadsheet file. For example, in a hospital, view patients' medical records, then seamlessly drill out to view the X-ray.

This powerful extension provides users with open-ended capabilities to access additional information stored outside any database structures **(Figure 6).**
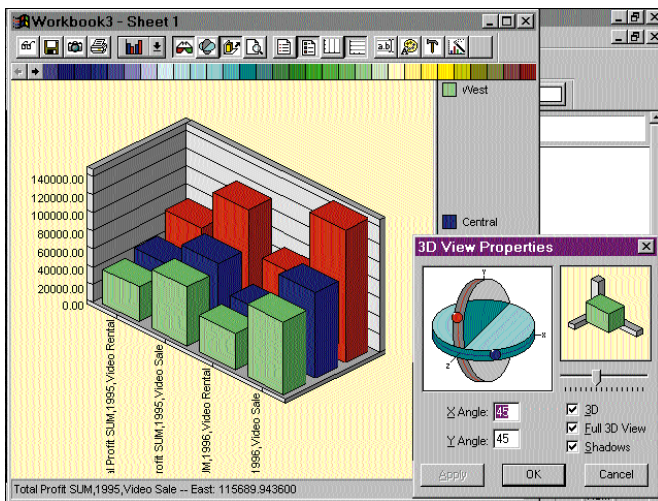
Business Charting

View trends and anomalies in your data by displaying them in graphical format. Chart styles include area, line, horizontal bar, pie, surface, pareto, doughnut, scatter, marks, column, cube, fit-to-curve, polar, and open-hi-low-close—in two-dimensional and three-dimensional format. Charts are dynamically linked to your results, allowing you to drill through the chart itself and immediately see trends and anomalies in your business **(Figure 7).**

Web Publishing

Publish final results from Oracle Discoverer workbooks in .html or .pdf formats. Enable a wider audience in the organization to view results using your standard web browser, e.g. Netscape Navigator,™ Microsoft Explorer, or Oracle PowerBrowser.™

Figure 8 *Minimal setup - default names, descriptions, and values*

Administration Edition—Minimal Setup and Low Maintenance

Use the Business Administration wizard interface to automatically populate the End User Layer, using the fast, one-button load capability. Group information into logical business areas to make data access easy and intuitive.

Minimal Setup

Extensive defaulting enables end users to immediately start querying their data. Initial load provides default folder names and descriptions, item names, descriptions, and lists of values, join definitions, and drill definitions. Reuse existing definitions held in previously created business areas to save time when creating new business areas.

Create composite folders to provide virtual views of information that inherit changes from the base folders and provide users with an easier view of their business. Reduce the complexity of data structures by pre-defining complex formulae and storing them as calculated items (Figure 8).

Low Maintenance

Use the database server to provide a centralized, secure repository for business definitions in the End User Layer. Efficient multi-user access and the scalability of the server protect your investment in Oracle technology. Use the native database security to provide user-access control—thus saving administration time and reducing security concerns. Rapidly synchronize changes in the database with the End User Layer using the wizard interface.
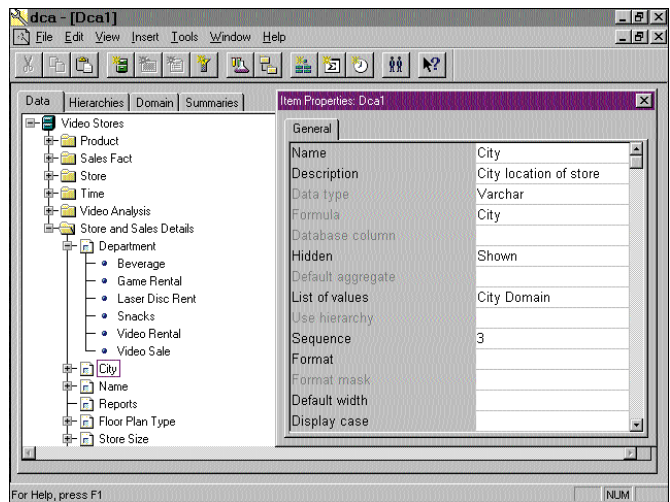
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Automatic Summary Management

Collect statistics to identify aggregates that users perform. Use the unique features of the summary wizard to create and automatically maintain summary tables to vastly improve performance. Use the summary wizard to register existing summary tables ensuring the User Edition can exploit these summaries when running queries, using the powerful automatic summary redirection capabilities.

Oracle Integration

Leverage your investment in other Oracle products. Oracle Discoverer can automatically load semantic data from Oracle Designer/2000 into the End User Layer. Move into enterprise-wide reporting using Oracle Discoverer to generate formatted reports in Oracle Reports. Integration with the Oracle kernel provides support for Oracle7 role-based security, query prediction, and automatic summary table creation and maintenance. The End User Layer is being extended to support the Oracle Express suite of products and the Applications Data Warehouse. Use the customized Business Areas and views supplied by Noetix™ to rapidly access Oracle Applications data with minimal setup and maintenance. Create your own business areas to provide end-user access to any Oracle based application you develop.

Open Access

Enable other tools to access business definitions stored in the End User Layer using the Open Meta Layer API which provides reduced setup and maintenance. Oracle Discoverer is OLE 2 compliant, which enables data transfer between familiar desktop tools such as Microsoft Word and Microsoft Excel. Export and import data to common file formats to enable information exchange between common desktop tools. Access data from non-Oracle data sources compliant with ANSI standard SQL92, providing seamless data access across all data sources in your environment.

Migration from Discoverer/2000

Immediately take advantage of Oracle Discoverer's enhanced functionality by effortlessly migrating existing End User Layer definitions from Discoverer/2000. Existing queries defined using Discoverer/2000 can be easily imported as an Oracle Discoverer workbook.