



DB2 OLAP Server V8.2 delivers powerful capabilities built on Essbase V7.1 technology

Overview

The **DB2 OLAP Server** product family delivers services to provide insightful information to stakeholders responsible for managing business performance. A shared approach to business intelligence and performance management is key to informed decision making and thus the success of your company. The DB2 OLAP Server product family provides the critical foundation technology that creates the shared information you need to manage your business. Version 8.2 brings you powerful capabilities and support on Linux across the product family.

DB2 OLAP Server is the engine that provides the analytical processing power, scalability, performance, manageability, and security needed for delivering information to a broad class of users. Version 8.2 delivers significant and exciting enhancements including massive dimensional scalability and reduction in aggregation time for sparse databases; the ability to more easily engage in global development; greater flexibility in accessing multidimensional data and metadata; the ability to more easily customize the end-user experience; the ability to quickly zoom in on relevant portions of the cube; and performance and administration enhancements.

DB2 OLAP Server Administration Services, a robust, GUI component of DB2 OLAP Server, provides rich capabilities to make administration tasks and comprehensive life-cycle management easy to perform. Version 8.2 delivers key enhancements to support the new DB2 OLAP Server capabilities; an expanded set of deployment options with support for WebSphere, WebLogic, DB2 UDB and Oracle; richer interfaces to manage your outlines; easier monitoring and charting of information from a log view; a new MDX Script Editor; and many other improvements that

collectively ease administration activities.

DB2 OLAP Integration Server, an option of DB2 OLAP Server, is a suite of graphical tools and data integration services that dramatically reduce the cost of creating, deploying, and managing tailored DB2 OLAP Server applications, while providing a vital link to detailed data stored in relational databases. Version 8.2 delivers key improvements including support for the new DB2 OLAP Server capabilities; integration with DB2 Cube Views; drill-through reporting enhancements; hybrid analysis enhancements; shared user-defined members; and incremental loads.

DB2 OLAP Server Deployment Services, a component of DB2 OLAP Server, provides a set of middle-tier services that enable broad deployment of business intelligence solutions to large user communities in distributed environments by extending the scalability, reliability, and availability of analytic applications. Version 8.2 delivers significant enhancements including connection pooling; several new Java APIs for custom-defined functions and for managing security access privileges; querying using MDX; Veritas Cluster Server on Windows; and support for the new DB2 OLAP Server capabilities.

DB2 OLAP Server Spreadsheet Services provides a highly intuitive, user-friendly, thin-client spreadsheet environment for OLAP analysis with DB2 OLAP Server through integration into Excel. Enhancements in Version 8.2 include an improved query designer; an improved look and feel throughout the product; enhanced member selection dialog box; lightweight installation for client software; hybrid analysis support; support for current and many new VBA functions; and support for the new DB2 OLAP server capabilities.

At a Glance

DB2 OLAP Server lets you extract more value out of your operational, transactional, and Business Intelligence data. Improvements in this release of DB2 OLAP Server including...

- Aggregate Storage Option (ASO) support for sparse data
- Enhanced analytical processing
- Improved scalability and performance
- Easier administration and maintenance
- Improved deployment
- Improved interfaces
- Enhanced platform coverage

...allow your business to stay fast, focused, and flexible, while ensuring that your IT infrastructure remains streamlined and connected to improvements in business results.

Key Prerequisites

For information about all hardware and software prerequisites and systems supported, refer to the Hardware requirements and Software requirements sections.

Planned availability dates

- Globalized, English-only version
 - July 30, 2004 (for electronic download)
 - August 27, 2004 (physically available)
- Fully localized version
 - September 30, 2004 (for electronic download)
 - November 12, 2004 (physically available)

This announcement is provided for your information only. For additional information, contact your IBM representative.

DB2 OLAP Server Product Family

The DB2 OLAP Server product family delivers services to access and integrate data from a wide range of sources, generate insightful information, and deliver that information to every stakeholder, within and outside the enterprise, who is responsible for managing business performance. How quickly and how well your company performs is directly related to the power and integration of your business intelligence and business performance management solutions.

To improve profitability and business performance, you need insight into and accountability across every business activity. Employees need to understand how decisions in one department or division affect other areas of the company. They need to make time-critical, insightful decisions that lower costs, increase revenues, and improve collaboration. No company today succeeds without a shared approach to performance management. That approach requires powerful analytical processing. Analytical processing is the critical foundation technology that creates the shared information you depend on for business performance management.

DB2 OLAP Server

DB2 OLAP Server provides the processing power, scalability, performance, manageability, and security needed for delivering information to a broad class of users. From Line-of-Business executives to operational managers to front-line workers, DB2 OLAP Server can power insight and action across your extended enterprise.

Powerful analytics. Rich functionality, including more than 250 sophisticated algorithms out-of-the-box, attributes, multiuser write-back, procedural logic, and custom-defined functions and macros to enable businesses to leverage deep insight from their Business Performance Management applications.

Massive scalability. Features such as cross-platform support, database partitioning, distributed processing, the ability to combine both relational and multidimensional data storage, and the brand new ability to support an optional aggregate storage kernel for huge, sparse databases enable DB2 OLAP Server to support communities as large as tens of thousands of users, while accessing massive volumes of information.

Superior performance. Parallel processing, caching, direct I/O and other features enable DB2 OLAP Server to deliver superior load, calculate, query, and update performance for enterprise-wide deployments. End users benefit from speed-of-thought query response even when performing the most sophisticated analytics.

Easy manageability. Features such as graphical interfaces, process automation and reusable dimensions, hierarchies, and business rules enable DB2 OLAP Server to deliver an environment that offers the control and cost efficiency of centralization, while enabling departments and business units latitude in how resources are used.

Robust security. Tight control of user access down to the individual cell level enables DB2 OLAP Server to safeguard sensitive information. Group- and role-based security models provide flexibility in allowing users access to the information they need to drive breakthrough performance.

- **ASO** — Support for aggregate storage databases (provided by a new aggregate storage kernel) enables dramatic scalability improvements in both database aggregation time and dimensional scalability. The aggregate storage kernel does not replace the current block storage kernel. Aggregate storage databases typically address read-only, “rack and stack” applications that have large dimensionality, such as the following applications:

- Customer analysis — Data is analyzed from any dimension and there are potentially millions of customers
- Procurement analysis — Many products are tracked across many vendors
- Logistics analysis — Near real-time updates of product shipments

Aggregate storage databases with many dimensions calculate (aggregate) in minutes.

- **Outline paging** — Aggregate storage databases may have outlines with millions of members. Support for outline paging significantly reduces memory usage, enhancing the end-user experience. Depending on the operating system and available memory, you can create outlines with up to 20 million members.
- **Unicode (UTF8) enabled server** — DB2 OLAP Server now supports a single database with data from multiple locales, through new Unicode support. Customers can now more easily engage in global development and easily provide all users access to data, regardless of their location and locale preference. DB2 OLAP Server will have two modes, non-Unicode and Unicode. Each DB2 OLAP Server application is designated as a non-Unicode-mode application (the default), or a Unicode-mode application. Administration Services, MaxL, and the API enable the migration of non-Unicode-mode applications to Unicode mode. Alias Tables will be available so that users can access views of information in their choice of language. Unicode support also extends to the following features: MDX, query logging, hybrid analysis, triggers, and data mining.
- **Metadata security** — Many customers wish to filter metadata members so that they can restrict the ability of users to view these members. DB2 OLAP Server currently filters the data values, but not the member names and aliases. This release of DB2 OLAP Server now adds the ability for administrators to set security on metadata members to provide tailored metadata views to end users. This will greatly enhance the customer’s ability to customize the end-user experience and to deliver extranet applications to their vendors, suppliers, and customers over the Web.
- **Remote Authentication Module** — The Remote Authentication Module is an optional component of the DB2 OLAP Server security platform. The security platform is a framework that provides DB2 OLAP Server applications with external authentication and single sign-on capabilities. The Remote Authentication Module is applicable to the following circumstances:
 - DB2 OLAP Server is deployed in a UNIX® environment with authentication occurring against a Windows domain.

- DB2 OLAP Server is deployed in a Windows environment, and users must log in to more than one Windows domain without changing the trust relationships.
- **Triggers on write operations** — This release adds support for triggers based on write and load operations. Triggers can be used to track certain types of state changes, create constraints to watch for over a cube area, and track if the constraints are violated during updates (events) in the area. If a violation is detected, triggers enable the administrator to proactively send e-mail alerts or wireless messages, or spool violated cells into a known file for further action. DB2 OLAP Server V8.2 supports several new trigger features:
 - On-update triggers and after-update triggers are now supported. The new after-update triggers fire only after all updates to the database are complete for a specific transaction.
 - In MaxL, create trigger statements are supported as well as the existing create or replace trigger statements.
 - For on-update triggers, you can now choose to add both old and new data values to the trigger spool file.
 - You can set triggers for databases in Unicode-mode applications.
- **MaxL enhancements:** With DB2 OLAP Server V8.2, MaxL now includes the following enhancements:
 - **MaxL DML (XML for Analysis)** — DB2 OLAP Server now enables access to multidimensional data and metadata through MaxL DML (data-manipulation language). MaxL DML is based on MDX, the XML for Analysis specification and is a robust language and expression syntax for creating and querying cube data. You can use either the MaxL Shell (essmsh) or MDX Editor in Administration Services to execute MDX queries.
 - MaxL support for Data Definition Language (DDL) operations such as creation, deletion, updating of users, applications, databases, and database objects.
 - New grammar to support aggregate storage application and database operations.
 - MaxL support of Unicode.
 - Addition to the display object statement, for displaying only locked objects.
 - Additions to the alter session statement: One addition for setting MDX display options, and one addition enabling compression of the security file.
 - Additions to the create trigger statement, for specifying on-update triggers (the default) or after-update triggers. After-update triggers are supported only in traditional block-storage mode.
 - Ability to view and delete data-monitoring logs (logs created by triggers) from within the MaxL Shell.
 - Filter enhancements: Lines can be added to filter definitions using alter filter. A new level of filter access is added to create filter and alter filter statements.
 - Improved STDOUT, STDIN, STDERR: Errors can be redirected to STDERR. STDERR and STDOUT can be redirected to a MaxL output log.
- Improved Database-Related Grammar: The text of database notes is displayed as part of display database. Database free-space recovery is available using alter database statement. Explicit restructuring is available in alter database.
- Display location aliases per application.
- Display port information.
- Full ESSCMD functionality available in MaxL.
- **Attribute and drill-through support for hybrid members** — DB2 OLAP Server now enables hybrid stored members to have attributes associated with them. This greatly enhances the types of applications that DB2 OLAP Server can support. For instance, a DB2 OLAP Server application can now include a large customer dimension stored in the relational data store and have demographics information associated with this customer dimension as attribute dimensions. In addition, drill-through support is now extended to hybrid members and attribute dimensions. This means that hybrid levels and attribute dimensions can now be present in a drill-through reports intersection level.
- **Data mining Java framework** — DB2 OLAP Server now includes a data-mining framework. Users can now leverage data mining algorithms using DB2 OLAP Server and their existing analytical data. A number of data mining algorithms are supported out-of-the-box and additional algorithms can be added to the framework through customization.
- **Reduced Security-File Fragmentation** — Fragmentation of the essbase.sec file can gradually develop when DB2 OLAP Server entities such as users, groups, applications, or databases are removed or changed. This can slow down security-related performance. With this release, the security file is compacted each time the Agent is shut down. Additionally, you can compact the security file without shutting down the Agent.
- **API** — DB2 OLAP Server V8.2 provides new features and enhancements for improved API functionality to support:
 - Aggregate storage databases.
 - Various trigger functions.
 - C Outline API function.
 - Performance improvements for querying members.
 - New API function that verifies the Rules file.
 - New API function that can verify a formula during an outline edit session.
 - An upgrade of the Member Information structure to include additional information. Because this structure is retained locally during a client session, several time-consuming retrievals can be eliminated, saving the client session significant time.
 - New capability that enables you to issue MDX statements from an application program.
 - Many functions added to the DB2 OLAP Server Visual Basic API that provide the same capabilities present in the DB2 OLAP Server C API.
- **Performance** — DB2 OLAP Server provides performance improvements in the following areas:
 - Query performance for transparent partitions — Query performance has been improved for transparent partitions containing outlines that have

a time dimension with Dynamic Time Series members.

- Performance for large outlines — Data load times and overall index size have been improved for large outlines.
- Improved data compression — In some instances, compression of the database has been improved. The most significant impact can occur on databases with large block sizes, where the blocks are highly sparse.
- **Calculation** — DB2 OLAP Server V8.2 includes the following calculation enhancements:
 - More control of currency conversions after loading data
 - Calculation script control over the create blocks on equation feature
 - Calculation script control over #MISSING block creation
- **Dimension build** — DB2 OLAP Server V8.2 includes the following rules file enhancements for building dimensions:
 - Changes to existing member storage properties
 - Replacement of UDA values
 - Dimension arrangement for optimal performance
- **Metadata sampling** — DB2 OLAP Server is a multidimensional database engine that provides support for ad hoc analysis. Such analysis is entirely driven by the intuition of the analyst and can be time-consuming as data volume increases. Large cubes tend to have more dimensions and sometimes more levels, making hierarchical navigation very cumbersome. DB2 OLAP Server V8.2 now includes support for metadata sampling, which enables you to analyze on large cubes with a focus on data trends or approximate information in the initial stages. Because you query on a sample of your data, retrieval is quick. Metadata sampling enables you to zoom in on a portion of the vast amount of data in your database in a fraction of the time that it usually takes to analyze the whole database. You can view many samples in a small amount of time and make early decisions. Later, you can follow with organized data exploration. With the introduction of hybrid analysis, you can store part of a DB2 OLAP Server cube in a relational database. Metadata sampling enables you to zoom in on all the data that you specify, whether it is in Analytic Services or in an underlying relational database.
- **Monitoring data changes (triggers)** — The DB2 OLAP Server V8.2 triggers feature enables you to monitor data changes in a database efficiently. If data breaks the rules that you have specified, DB2 OLAP Server can send an e-mail (to a user or system administrator) or log the information in a file. You can create and delete triggers using MaxL statements.
- **Administration** — DB2 OLAP Server V8.2 provides additional or improved administration functionality in the following areas:
 - Application log enhancements
 - Multiple agent enhancements
 - Optimize outline for batch calculation
 - Explicit restructure command
- **Delayed free space recovery** — Improvements have been made to the free space recovery process, which is the most expensive part of database recovery. Database recovery takes place any time you load an

application that ends abnormally. Changes have been made to the free space recovery process, as follows:

- Performance has been improved significantly.
- Free space recovery, which happened automatically before, is now delayed by default. The user must explicitly trigger free space recovery. A configuration option has been added to specify whether or not to delay free space recovery by default.
- Explicit free space recovery has been added with a new MaxL grammar for alter database.
- The GETDBSTATS command adds two lines of information about free space recovery.
- If free space is recoverable, the block counters are estimates and do not necessarily match the number of existing blocks.
- A new C API function, EssRecoverDbFreeSpace, has been added.
- The ESB_DBSTATS_T structure has been changed.
- **Server threads specified by application** — Previously, the SERVERTHREADS configuration setting could only specify a single server thread value for all applications, meaning each application on the server had to use the same value. Now, users can choose to specify a different number of server threads for certain applications.
- **Additional platform support and spreadsheet add-in changes** — With V8.2, DB2 OLAP Server adds AIX 5.2, Red Hat Linux AS 2.1, Microsoft Windows 2003, and Sun Solaris 9 (Sun OS 5.0.9) to its list of supported platforms. For a complete list of supported operating systems, refer to the Software requirements section. Spreadsheet add-in for Lotus® 1-2-3® is not shipped with DB2 OLAP Server V8.2. Support for Lotus 1-2-3 Release 9.7 is available with the DB2 OLAP Server V8.1 FP5, or later, spreadsheet add-in client in conjunction with DB2 OLAP Server V8.2.

DB2 OLAP Server Administration Services

A robust, cross-platform GUI that makes administration tasks easy to perform. Administrators can simultaneously view and edit properties for multiple applications, databases, users, scripts, and other objects from a single intuitive view. The Administration Services Console also provides wizards, editors, dynamic menus, and other tools to help you implement, monitor, and maintain Business Intelligence solutions.

Personalized multiserver administration — Makes it easier for administrators to view and access only the servers, applications, databases, and users they are responsible for managing.

Drag-and-drop creation of complex business logic — Users can rapidly and easily create application models and outlines, calculations, end-user profiles, and other application metadata.

Powerful scripting functionality — Enables batch processing of routine administration tasks, enhancing end-user productivity and enabling centralized process management.

Interactive administration editors — Key word color coding and syntax auto-completion make it easy to build and validate administration, calculation, and report creation scripts.

Comprehensive life-cycle management — Administrators can easily and reliably migrate applications, from development to test to production.

Messages panel and log analysis — Users can view, search, filter, and analyze information about application and server status, and perform usage analysis by end user, application, and servers.

DB2 OLAP Server Administration Services V8.2 — Highlights

DB2 OLAP Server Administration Services V8.2 extends the power of DB2 OLAP Server in many ways:

• Support for DB2 OLAP Server enhancements

- **Aggregate storage support** — Manage and maintain aggregate storage databases. Wizards for migrating block storage outline to aggregate storage outline.
- **Metadata security** — Adds a layer of security for metadata (dimensions and members) in outlines, similar to read-only security for data cells. In Filter Editor, a new Access type called MetaRead can be applied to dimensions or members in filter definitions to restrict access to them when retrieving an outline in a report.
- **Unicode (UTF-8) support** — Administration Services fully supports the new DB2 OLAP Server Unicode feature, which enables sharing of database information across computers that are set up for different character sets.
- **Data mining framework** — To support the new DB2 OLAP Server data mining framework, Administration Services provides a data mining menu and a mining wizard to help you find hidden relationships and patterns in a database.
- **Multiple agent enhancements** — The process for a client to connect to multiple Agents on a single machine has been simplified.
- **Rules file enhancements for dimension builds** — Data Prep Editor supports rules file enhancements for dimension builds, such as arranging dimensions in an hourglass shape and allowing UDA changes.
- **Outline optimization** — You can optimize an outline for calculation performance either from a right-click menu in Enterprise View or from the Actions menu.

• Extended Functionality in Outline Editor and Outline Viewer — Outline Viewer, the fast-loading option for viewing outlines, now matches the Outline Editor display of all outline and member properties, including member formulas, aliases, attributes, UDAs, and so on. Outline Viewer also provides a search facility to locate specific members in the outline. Outline Editor provides significant performance improvements, including better performance when opening large outlines and when drilling down on members with large numbers of children. The Outline Editor and Outline viewer provide the following additional improvements:

- Significant performance improvement when drilling down on members with large numbers of children (for example, 50,000 members or more).
- Enhancements in expanding and collapsing outlines (expand entire outline, expand to children, expand to descendants, and collapse to ancestor).

- Ability to undo most operations in the current outline editing session, even after saving the outline. This includes the ability to undo multiple operations at one time.
- Ability to update an outline using a rules file while the outline is open in Outline Editor.
- Ability to search and replace in Outline Editor.
- New options to disable confirmation prompts when deleting or moving members.
- **Improved deployment options with support for additional application servers and relational databases** — Deployment options for Administration Services have been increased by adding support for WebSphere and WebLogic as application servers as well as DB2 and Oracle as relational databases.
- **Administration Server management** — This release provides the following improvements in Administration Server management:
 - Ability to add multiple Administration Servers to Enterprise View and to remove Administration Servers from Enterprise View.
 - Ability to disconnect from and reconnect to Administration Servers from Enterprise View.
 - Ability to check the status of Administration Servers from Enterprise View (Running, Connected, Stopped, or Unknown).
- **New Log Viewer and Log Analyzer** — Administrators can now easily monitor and chart information from a DB2 OLAP Server log view. Using the new Log Viewer, you can view DB2 OLAP Server logs and application logs. Log Viewer displays up to 5 megabytes (MB) of log information. If the log contains more information, Log Viewer displays the most recent information in the log. You can also specify a starting date from which to view log information, and you can search the log for specific text. You can use the new Log Analyzer to filter, search, and analyze DB2 OLAP Server logs and application logs. Based on filters you choose or create, you can view robust graphical charts for a log.
- **New MDX Script Editor** — An MDX Script Editor with auto-complete functionality makes it easy to quickly use the power and flexibility of the MDX query language.
- **Auto-Completion in Script Editors** — This release adds auto-completion of script syntax to Calculation Script Editor and Report Script Editor. As you start to type command and function names, a drop-down list is displayed so that you can select the command or function from the list instead of typing it manually. Auto-completion is also available in MaxL Script Editor and MDX Script Editor.
- **Rules file printing** — Administrators can now print the content of a rules file, making it easier to debug a rules file.
- **Management of database triggers** — You can use the Administration Services Console to view, create, modify, delete, enable, or disable triggers. Triggers are rules that create areas of the database that are monitored during all write operations to the database. When specified conditions are met, certain actions are performed on behalf of the user.
- **Users and groups in tabular display** — DB2 OLAP Server users and groups are now displayed in a tabular format. This format provides a better overall view of users and groups, and provides greater flexibility and ease in user and group management

tasks. From the Users or Groups table, you can perform operations on multiple users and groups at one time.

- **Accessibility** — The Administration Services Console provides accessibility features, such as keyboard shortcuts, keyboard navigation for tree controls, default focus and default action buttons in dialog boxes and windows, logical tabbing order, keyboard scrolling, tooltips for UI elements, and an accessible help system.
- **Start/stop DB2 OLAP Servers remotely** — Administrators can now start and stop DB2 OLAP Servers remotely. This is supported for DB2 OLAP Server V8.2 and V8.1.
- **Administration of DB2 OLAP Server Deployment Servers** — The Administration Services Console provides an interface to manage DB2 OLAP Server Deployment Servers from the Enterprise View tree. Some DB2 OLAP Server Deployment Server features are activated through a separately licensed DB2 OLAP Server option (High Concurrency option). These features are available only if a valid license is installed that enables the DB2 OLAP Server Deployment Server High Concurrency option. The High Concurrency option enables you to cluster multiple DB2 OLAP Servers to create a fault-tolerant and load-balancing DB2 OLAP Server configuration. In addition, this option enables connection pooling across multiple named users to provide more efficient use of DB2 OLAP Server connections.
- **Export and import selection rules for partition areas** — To help with creating area mappings in partitions, you can export and import member selection rules. This feature enables you to import selection rules that were previously exported from Application Manager (Application Manager is a component of DB2 OLAP Server V8.1 that is not available with DB2 OLAP Server V8.2).
- **Data preview grid** — Administrators can now navigate data directly from the Administration Services Console.
- **Database properties in tabular display** — Database properties for all databases on Analytic Server can now be viewed from a single table. You can rearrange and sort the items in the table, and you can print and e-mail the contents of the table.
- **Extended Administration Services functionality using Java plug-in components** — Administration Services enables you to extend the functionality of the product by developing Java plug-in components. A Developer's Guide explains the concepts, procedures, and examples needed to extend functionality, and a Java API Reference provides descriptions of the classes, interfaces, and methods that a plug-in author implements.
- **Reduced number of nodes in Enterprise View** — The Enterprise View tree now includes fewer nodes. Nodes are no longer duplicated under servers, applications, and databases. These changes facilitate navigation through the tree.
- **Migration Wizard enhancements** — Migration Wizard (added in Release 6.5.1) steps you through the process of migrating (copying) applications and databases across Analytic Servers. Several enhancements have been made to Migration Wizard.
- **Extended functionality in partitioning** — Improvements have been made to the partitioning interface, including: You can now import area definitions for partitions from an external text file instead of creating

the area definitions manually, and you can use the new subset dialog box to apply additional rules to a subset of members when defining areas in partitions.

- **Support for long file names** — File names for Analytic Services objects are no longer restricted to eight characters.
- **New output options for reports** — When you execute a report script, you can now output the report directly to a console window, a printer, or to a file.
- **Text Mode Agent for Administration Server** — To facilitate running Administration Server as a Windows service and to eliminate the need to use the X Window System on UNIX computers, Administration Server now runs in a Text Mode Agent process or DOS window. The previous server user interface has been moved to Administration Services Console. To view Administration Server properties in Enterprise View, right-click the Administration Server node and select Edit properties. The X Window System is still needed to run the Administration Services installer on UNIX computers.
- **Additional platform support** — With V8.2, DB2 OLAP Server Administration Services adds AIX 5.2, Red Hat Linux AS 2.1, Microsoft Windows 2003, and Sun Solaris 9 (Sun OS 5.0.9) to its list of supported platforms. For a complete list of supported operating systems, refer to the Software requirements section.

DB2 OLAP Integration Server (an option of DB2 OLAP Server) — A suite of graphical tools and scalable data integration services that dramatically reduce the time and expense required to create, deploy, and manage tailored applications. DB2 OLAP Integration Server provides a vital link between tailored-made applications based on DB2 OLAP Server and detailed data stored in relational databases.

A centralized OLAP Metadata repository simplifies tailored application administration, promotes reusability of dimensions, calculations, and business rules, and facilitates delivery of business-focused applications driving insight across the enterprise. Use DB2 OLAP Integration Server with DB2 OLAP Server to achieve rapid development and deployment of performance management applications that support a wide range of business needs. Built on a flexible, multitier architecture, DB2 OLAP Integration Server easily scales to accommodate changing requirements and delivers scalability, performance, and reliability at a low total cost of ownership.

DB2 OLAP Integration Server V8.2 — Highlights

- **Support for aggregate storage and block storage databases** — Integration Server V8.2 now includes support for aggregate storage and block storage databases.
- **Unicode (UTF-8) support** — With V8.2, DB2 OLAP Integration Server provides Unicode support for both data sources and OLAP Metadata Catalogs, enabling you to use multiple languages within your business environment. DB2 OLAP Integration Server supports both native and Unicode Text Format (UTF-8) data sources. It also supports separate catalogs for native and UTF-8 applications. When you connect to a catalog and data source, DB2 OLAP Integration Server determines the encoding that you use and ensures that any DB2 OLAP Server applications that you use are in the same encoding. Unicode support is available on both Microsoft Windows and UNIX-based platforms. Hybrid analysis also now supports Unicode.

- **DB2 Cube Views support** — DB2 OLAP Integration Server V8.2 supports DB2 Cube Views so that you can import and export OLAP model and metaoutline metadata objects between DB2 Cube Views and DB2 OLAP Integration Server. To take advantage of this capability, you first export your models or metaoutlines to an XML file. The XML file maps DB2 OLAP Integration Server metadata objects with DB2 Cube Views metadata objects. The XML file is then used to import the metadata objects between the DB2 catalog and the DB2 OLAP Integration Server metadata catalog.
- **Support for DB2 UDB for OS/390® and z/OS® V7** — With V8.2, DB2 OLAP Integration Server now includes support for DB2 UDB for OS/390 and z/OS V7.
- **Hybrid analysis enhancements** — With V8.2, hybrid analysis is enhanced to include support for Unicode (UTF-8), Dynamic Time Series, and DB2 UDB for OS/390 and z/OS V7.
- **Drill-through reporting to Web sites** — DB2 OLAP Integration Server expands the options for drill-through reports by giving you the capability of specifying a Web site as the data source. To take advantage of this option, you can easily customize the drill-through SQL template by replacing the relational data source with an HTML source. DB2 OLAP Integration Server passes the Web site to DB2 OLAP Spreadsheet Services, (or another drill-through client), which then launches the Web site in a browser.
- **Drill-through to a secondary data source** — In addition to enabling you to drill through to a Web site as described earlier, DB2 OLAP Integration Server V8.2 gives you an additional option for drill-through reports by giving you the capability of replacing your primary data source with any secondary data source for the report.
- **Drill-through reporting with attribute dimensions** — In V8.2 of DB2 OLAP Integration Server, drill-through reporting capabilities are greatly expanded for attributes. Now you can select attribute dimensions and attribute members as OLAP intersections.
- **Drill-through reporting with hybrid analysis members** — In V8.2 of DB2 OLAP Integration Server, drill-through reporting capabilities are greatly expanded for hybrid analysis members. Now you can select hybrid analysis dimensions and hybrid analysis member columns as OLAP intersections.
- **Attribute support for hybrid analysis members** — V8.2 of DB2 OLAP Integration Server gives you the option of associating attributes to hybrid analysis members. In earlier versions, attributes could not be tagged as hybrid analysis enabled hierarchies.
- **Alternate hierarchy support for hybrid analysis** — As mentioned earlier, V8.2 of DB2 OLAP Integration Server expands the functionality of hybrid analysis by giving you the option of associating hybrid analysis members to attribute dimensions and selecting hybrid analysis member columns as intersections. DB2 OLAP Integration Server V8.2 further expands the functionality of hybrid analysis by supporting alternate hierarchies within your hybrid analysis data.
- **Shared user-defined members** — In V8.2 of DB2 OLAP Integration Server, you can designate your own user-defined members as shared members. This option enables user-defined members to share storage space with other members of the same name.
 - Managing different versions of XML models and metaoutlines
 - Restoring a past version of an XML model or metaoutline to the current version
- **Extended prefix and suffix aliases functionality** — Several business environments require multiple versions of data. For example, many companies keep track of order dates, shipment dates, payment-due dates, as well as multiple locations such as order-origin city and destination city. This data often uses both original names and code names; for example, Los Angeles and LA. To make tracking such data easier and more efficient, DB2 OLAP Integration Server V8.2 enables you to attach prefixes and suffixes to aliases when you perform member loads and data loads. The attached prefixes and suffixes can take several forms:
 - Member names
 - Numeric values
 - Text values
 - Mix of numeric and text values
- **Time-based incremental loads/updates** — Using DB2 OLAP Integration Server V8.2, you can perform incremental updates, loading only data that has changed or been added since your last data load. To help you monitor data loads, DB2 OLAP Integration Server keeps track of data load information and displays it in your Metaoutline Properties dialog box. You can take advantage of this new feature if your fact table has a time-stamp column. The following information is updated each time you perform a data load:
 - DB2 OLAP Server name
 - DB2 OLAP Server application name
 - DB2 OLAP Server database name
 - Date-time stamp of the last data load
- **Enhanced logging** — To assist you in verifying that data loads are being performed correctly, DB2 OLAP Integration Server V8.2 creates two files:
 - dataloadrecord.txt file containing the first 1,000 successfully loaded records
 - hisdld.rul file containing the names of the dimensions loaded, followed by the leaf node number of each dimension and member
- **Additional DB2 OLAP Server settings support** — DB2 OLAP Integration Server V8.2 increases the number of DB2 OLAP Server settings that can be loaded from a database column during a data load. These settings are loaded from a database column in the same way as a Consolidation attribute and a UDA are loaded.
 - Comments
 - Currency name attribute
 - Currency category attribute
- **Updated sample applications** — With V8.2, DB2 OLAP Integration Server updates its sample applications database to demonstrate several new features and functionality. Among the features demonstrated in the new sample applications are the following:
 - SQL drill-through
 - SQL data load override
 - Pass-through SQL
 - Use of multiple data sources
- **Automatic migration to V8.2** — When you create or update an OLAP Metadata Catalog for the first time within a new release of DB2 OLAP Integration Server, a set of scripts is automatically run, which enable you to migrate to the current release of DB2 OLAP Integration Server from an earlier release.

- **New XML data type definition (DTD) documents** — V8.2 of DB2 OLAP Integration Server provides two new documents that give details on OLAP model and metaoutline XML Import/Export DTDs. The two new documents, XMLImport/Export OLAP Model DTD and XML Import/Export OLAP Metaoutline DTD are included in the standard documentation set. Each DTD element is described in detail:

- Element name in full
- Description of element, including its function
- Explanation of parameters for element
- Any special notes for element, if applicable

- **Additional platform support** — With V8.2, DB2 OLAP Integration Server adds AIX 5.2, Red Hat Linux AS 2.1, Microsoft Windows 2003, and Sun Solaris 9 (Sun OS 5.09) to its list of supported platforms. For a complete list of supported operating systems, refer to the Software requirements section.

DB2 OLAP Server Deployment Services (a component of DB2 OLAP Server) — Provides a set of middle-tier services that enables broad deployment of business performance management solutions to large user communities in distributed environments. DB2 OLAP Server Deployment Services extend the scalability and reliability of analytic applications and supports thousands of concurrent users in distributed environments with Web-based architectures. Connection pooling, database clustering, load balancing, and failover ensure applications are available 24 x 7 x 365.

DB2 OLAP Server Deployment Services also supports the creation and deployment of powerful Web-oriented analytical applications. Applications written as Java servlets, Java applets, Enterprise Java Beans (EJB) or stand-alone Java applications can easily be deployed using the multitier Web-based Deployment Services framework.

Connection pooling — Enables client requests to share database connections, which improves query response times and conserves software, server, and network resources.

High availability — Enables the creation of a DB2 OLAP Server cluster that serves as a single data source for applications, increasing the availability of analytic data for end-user queries. For example, applications can continue to service requests with no user impact when one or more servers within the cluster fails or is taken off-line for update.

Web optimized — Supports scalable Web deployments and can extend seamlessly to the entire extended enterprise. Complements Developer Workbench and Analysis Studio by providing the underlying J2EE-based foundation and a full set of Java APIs.

Horizontal scalability — Enables the creation of a DB2 OLAP Server cluster that serves as a single data source for applications allowing end-user requests to be distributed across multiple physical machines, increasing user scalability and ensuring consistent query response times.

DB2 OLAP Server Deployment Services V8.2 — Highlights

- Several new Java APIs for custom-defined functions and macros, and for managing security access privileges
- New Java API capabilities for listing calculation functions
- Support for querying DB2 OLAP Server using MDX (new Java API support for MDX); XMLA support

- Supports better password control
- Zero maintenance option for tools users
- Zero maintenance option that enables automated addition of new user information to the DB2 OLAP Server Deployment Services server
- Administrators can now manage DB2 OLAP Server Deployment Services using the DB2 OLAP Server Administration Services Console, as DB2 OLAP Server Deployment Services administration has been integrated into DB2 OLAP Server Administration Services
- Veritas Cluster Server support for DB2 OLAP Server on Windows platform
- Ability to identify and halt specific DB2 OLAP Server requests
- Unicode (UTF-8) support
- Metadata security support
- Ability to perform an Integration Server drill-through on a range of cells
- Ability to perform a drill-across on a range of cells
- Support for connection pooling with:
 - com.essbase.api.metadata and
 - com.essbase.api.datasource
- Support for the DB2 OLAP Server security platform (also referred to as Common Security Services (CSS))
- Support for external authentication
- Outline caching support for member selection queries
- Backward compatibility with DB2 OLAP Server V8.1
- Additional platform support: With V8.2, DB2 OLAP Server Deployment Services adds AIX 5.2, Red Hat Linux AS 2.1, Microsoft Windows 2003, and Sun Solaris 9 (Sun OS 5.0.9) to its list of supported platforms

For a complete list of supported operating systems, refer to the Software requirements section.

DB2 OLAP Server Spreadsheet Services

DB2 OLAP Server Spreadsheet Services provides a user-friendly spreadsheet environment for OLAP analysis with DB2 OLAP Server. By integrating directly into Excel, users can complete powerful ad-hoc analysis through an already familiar environment. This highly intuitive, ultra-thin spreadsheet client provides full functionality via the Web, and its Web services architecture runs securely across networks and seamlessly through firewalls.

DB2 OLAP Server Spreadsheet Services V8.2 — Highlights

The new DB2 OLAP Server Query Designer allows:

- DB2 OLAP Server Spreadsheet Services clients to create, save, and open queries
- Access to queries on the open worksheet and can export queries to report scripts
- Improved look and feel throughout the product
- Ability for spreadsheet users to change passwords
- Enhanced Member Selection dialog box — Dialogs are now modeless and resizable

- Connection and disconnection from servers is now available from the client
- Lightweight installation for client software (MSI client)
- Allow setting global and sheet-specific options
- Cascading reports
- Support for linked reporting objects
- Support for formula fill and formula preservation
- Unicode (UTF-8) support
- Metadata security support
- DB2 OLAP Integration Server drill-through support
- Hybrid analysis support
- Backward compatibility with DB2 OLAP Server V8.1
- Support for sheet level options using defined names
- Support for substitution variables
- Support for named ranges
- Support for Dynamic Time Series
- Lock and send menu item
- Support for current and many new VBA functions
- Support for localization
- Excel 2003 support
- Additional platform support: With V8.2, DB2 OLAP Spreadsheet Services adds AIX 5.2, Red Hat Linux AS 2.1, Microsoft Windows 2003, and Sun Solaris 9 (Sun OS 5.09) to its list of supported platforms

For a complete list of supported operating systems, refer to the Software requirements section.

DB2 OLAP Server Documentation Installation Improvements

Starting with DB2 OLAP Server V8.2, all DB2 OLAP Server documentation is installed separately from the software product installation.

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