



HYPERION® SYSTEM™ 9 BI+™

ANALYTIC SERVICES

RELEASE 9.2

NEW FEATURES



This document describes the new features in Analytic Services Release 9.0. For information on the new features in Administration Services, see the *Administration Services New Features* booklet.

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NEW FEATURES IN RELEASE 9.0

The new features in Release 9.0 are described in the following topics.

HYPERION SYSTEM 9

Hyperion System 9 is a comprehensive Business Performance Management system. It integrates financial applications with a business intelligence platform to provide a modular system that adapts to any business need.

The major components of Hyperion System 9 are Hyperion System 9 Applications+, Hyperion System 9 Foundation Services and Hyperion System 9 BI+.

Hyperion System 9 Applications+ is a set of packaged applications for planning, consolidation, and scorecarding.

Hyperion System 9 Foundation Services is a base of common technologies used by multiple products. It eases the installation and configuration process and provides metadata management and a common Microsoft Office interface. Hyperion System 9 Foundation Services includes Hyperion System 9 Shared Services, Hyperion System 9 Data and Application Integration, Hyperion System 9 Master Data Management, Hyperion System 9 BI+ Workspace, Hyperion License Server and Hyperion System 9 Smart View for Office.

Hyperion System 9 BI+ is a comprehensive business intelligence platform. It provides management reporting and analysis from any data source, including transactional systems, data warehouses, SAP BW, Analytic Services, and Hyperion financial applications.

Hyperion System 9 BI+ offerings:

- User interaction with all types of information in one environment—viewing of reports, processing of reports and queries that include parameters, and using dynamic dashboards to view and interact with content
- The richly interactive BI+ user interface, which serves as a single thin client for reporting, analysis, and metrics management
- The broadest set of modular BI functionality in the market, including production reporting, financial reporting, ad hoc query and analysis, and advanced analytics
- Seamless integration and interaction with Microsoft Office
- Flexible and complete content access, which integrates third-party content with Hyperion content in an easy to use interface.
- Capabilities including subscription notifications, favorites, and scheduling options to support a wide range of application uses
- Integration with the full Hyperion System 9 Foundation Services for central provisioning and management of all Hyperion System 9 users

Hyperion System 9 BI+ Module descriptions:

- **Essbase Analytics and Enterprise Analytics**—Collectively referred to as Analytic Services; provides powerful OLAP capabilities for high performance multidimensional reporting, analysis, and modeling
- **Interactive Reporting**—Self-service, ad hoc query and analysis for relational databases that enable users to pivot interactively, and to slice and drill from summary to detailed data
- **Production Reporting**—Visually clear, high volume, enterprise reporting with parameters
- **Financial Reporting**—Highly formatted financial reports with access to Hyperion System 9 Applications+, Hyperion System 9 BI+ Analytic Services, and SAP BW

- **Web Analysis**—Interactive, visualization and reporting against Hyperion System 9 BI+ Analytic Services, Hyperion System 9 Applications+, and SAP BW
- **Enterprise Metrics**—Enterprisewide metrics management and analysis delivered through personalized, interactive dashboards

SHARED SERVICES USER MANAGEMENT

Shared Services User Management enables centralized management of user access rights and accessibility to applications created under various projects of different products. The user management process allows the administrator or delegated administrator to associate users and groups to projects and give them specific roles in that application.

User IDs and groups may exist in various authentication systems and also within products in an existing installation. Also, you can create new users and groups and roles at the native level. Every product has product-specific roles defined at the product level.

A project may contain one or more applications. Users or groups can be associated with an application and can be assigned one or more roles per application.

For additional information about user management, see the *Hyperion Shared Services User Management Guide* available on the Hyperion Download Center.

AGGREGATE STORAGE DATABASES

Support for aggregate storage databases (introduced in Release 7.1) enables dramatic scalability improvements in both database aggregation time and dimensional scalability. Release 9.0 provides the following enhancements to the support for aggregate storage databases:

- [“Restructuring” on page 3](#)
- [“Export Database Enhancements” on page 3](#)
- [“Kernel Improvements” on page 4](#)

RESTRUCTURING

Release 9.0 introduces significant aggregate storage database restructuring improvements. In most cases, you can now change a database outline and restructure without clearing data from the database.

For detailed information on this feature, see “Managing Aggregate Storage Database Restructuring” in the *Database Administrator’s Guide*.

EXPORT DATABASE ENHANCEMENTS

Release 9.0 introduces the ability to export level-0 data from aggregate storage databases.

For detailed information on this feature, see “Managing Aggregate Storage Applications and Databases” in the *Database Administrator’s Guide*.

KERNEL IMPROVEMENTS

Release 9.0 introduces several kernel improvements:

- Enhanced support for deep, ragged hierarchies in an outline
- Improved database compression (in some cases, databases can be compressed up to a factor of 3X). Database compression is enabled by the accounts dimension and characteristics of the accounts dimension influence the size of the compressed database. A new tool introduced in Release 9.0 helps you choose an accounts dimension by estimating what the database size would be depending on which dimension is tagged as accounts.

For detailed information on these features, see “Choosing an Accounts Dimension” in the *Database Administrator’s Guide* (volume IV).

SUPPORT FOR OUTLINES WITH DUPLICATE MEMBER NAMES

Release 9.0 introduces duplicate member outlines (also known as non-unique member outlines). You can now create an aggregate storage database outline or a block storage database outline that has duplicate member names. For example, an outline can contain two members called “New York”, one member under State and another member under City.

You can also create alternate hierarchy members (shared members) based on the duplicate member names.

Substantial new functionality and syntax is added to support duplicate member names in database outlines. For detailed information, see “Creating and Working With Duplicate Member Outlines” in the *Database Administrator’s Guide*.

ADVANCED RELATIONAL ACCESS

Advanced relational access provides online analytical processing (OLAP) on data stored in a relational database. This feature is an expansion of Hybrid Analysis and provides increased flexibility when querying relational data. Advanced Relational Access is available for aggregate storage databases only.

In Release 9.0 you can specify any non-accounts dimension as advanced relational access enabled, and you can tag members up to generation 2 as hybrid analysis enabled.

For more information, see the Essbase Integration Services documentation and “Accessing Relational Data With Hybrid Analysis” in the *Database Administrator’s Guide*.

EXTENDED SUBSTITUTION VARIABLE SUPPORT

Substitution variables act as global placeholders for information that changes regularly; for example, you could have a variable named “Current Month” and you could change the value to January, February, March, and so on, to display the actual name of the month on a report.

Prior to Release 9.0, substitution variables could be used in calculation scripts, report scripts, and in Spreadsheet Add-in. Release 9.0 adds the ability to use substitution variables in the following areas:

- Outline formulas in both block storage outlines and aggregate storage outlines without expanding the formula when you save the outline.
- Security filters

- Areas and Mappings definitions for partitions
- MDX statements
- Rules file specifications for data source name (DNS) definitions associated with using SQL Interface to load data from relational data sources
- Rules file specifications for dimensions or member names in the data load header and in the field name specification for data load columns.

For more information, see “Using Substitution Variables” in the *Database Administrator’s Guide*.

NEW REPORT WRITER COMMANDS

Release 9.0 introduces the following new Report Writer commands:

- To control member and alias name display: <REPMBR, <REPALIAS, <REPMBRALIAS, and <REPALIASMBR.
- To report on duplicate member name outlines: <OUTPUTMEMBERKEY, and <REPQUALMBR.
- To enable the selection of shared members based on the UDA of the associated stored members: <SUDA (this command is a variation of <UDA).

For more information on these commands, see the *Technical Reference*.

DATA MINING ENHANCEMENTS

Release 9.0 enhances data mining in the following areas:

- While defining data mining models, users can now apply any of the following mathematical transformations to accessors in an algorithm: exponent, logarithm, power, scaling, addition, and linear transformation as a combination of scaling and addition. User-defined transformations can also be added to the Data Mining Framework.
- Using PMML (Predictive Modeling Markup Language) format, users can import and export data mining models.
- Using the new scoring mode, users can execute data mining models interactively, without having to store the results in a database.
- The Data Mining Wizard now provides a mapping interface that enables users to more easily select members for test and apply tasks.

MAXL AND MDX

For a complete description of MaxL statements and MDX language, refer to the *Technical Reference*. The following topics discuss new features in MaxL and MDX:

- The MaxL **export data** statement supports exporting level-0 data from aggregate storage databases.
- The MaxL **query database** statement estimates compression for aggregate storage databases when different dimensions are hypothetically used as the accounts dimension:

```
query database DBS-NAME list aggregate_storage
compression_info;
```

- MDX queries and MDX member formulas on aggregate storage outlines can use substitution variables. Instead of invoking member names directly in MDX statements, you can use substitution variables.

For example, if a substitution variable called `CurrentMonth` exists with the value `Jan`, and a substitution variable called `ProdType` exists with the value `100-10`, then an MDX statement can invoke the substitution variables as follows:

```
SELECT {[&CurrMon], [&ProdType]}} on COLUMNS from Sample.Basic
```

- MDX queries can use saved named sets that persist for the duration of a login session. These re-usable set specifications can help streamline the writing and execution of MDX queries. For more information, see the Help topic for `create set` in the MDX section of the *Technical Reference*.
- MDX supports new properties to help return specific information about members in databases. The properties are `IS_EXPENSE`, `COMMENTS`, `RELATIONAL_DESCENDANTS`, `MEMBER_UNIQUE_NAME`, and the direct use of alias table names (for example, `DEFAULT` and `LONG NAMES` used as properties). For more information, see the Help topic “About Member Properties” in the MDX section of the *Technical Reference*.
- MaxL data-mining statements are expanded to support the following features:
 - Transformations. Transformations are functions that can be applied to the data being retrieved from an Analytic Services database before it is passed to the data mining algorithm or to the data being written to the Analytic Services database after it comes out of the algorithm. For more information, see `create transformation`, `drop transformation`, and `display transformation` statements.
 - PMML import and export. PMML stands for Predictive Modeling Markup Language, a data mining related standard for mining model descriptions developed by the Data Mining Group (www.dmg.org). Exporting to a PMML file can be used to publish the model externally or to move it between databases (using PMML import). For more information, see `export model` and `create or replace model` statements.
 - Scoring of data mining models. Scoring a model is similar to applying a model to the data in a database. However, scoring is executed synchronously and the results are not written back into the database; rather, they are returned in XML for Analysis format. To load a model in preparation for scoring, see `create mining result` statement. To score a model, see `query database ... score miner...` statements. To unload the model after scoring, use `alter system stop mining session`.
- MaxL statements are available to help you migrate Analytic Services to Shared Services security mode, and to manage users, groups, and applications in Shared Services security mode. For more information, see “What’s New in MaxL DDL?” in the MaxL section of the *Technical Reference*.
- The MaxL `create database` statement includes grammar to create a database that supports duplicate member names. For more information, see “What’s New in MaxL DDL?” in the MaxL section of the *Technical Reference*.
- The MaxL Shell includes a new `set timestamp` command which displays a timestamp after each operation.

API

The following topics discuss new features in the API. For additional information about the features, see the *Database Administrator's Guide*. For a complete description of API functionality, and for information on the specific functions, see the *API Reference*.

- A new MDX API function, `EssMdxSetHideData`, converts `#NOACCESS` cells to `#MISSING`.
- Several API enhancements have been made to support duplicate member names. For more information, see “Migrating to Release 9.0” in the *API Reference*.
- Several API enhancements have been made to help you migrate Analytic Services to Shared Services security mode, and to manage users, groups, and applications in Shared Services security mode. For more information, see “Migrating to Release 9.0” in the *API Reference*.

HYPERION ESSBASE 64-BIT RELEASE

Release 9.0 introduces a 64-bit version of Analytic Services, available on the following platforms:

- Windows 2003 64-bit on Itanium.
- HP-UX 11.23 64-bit on Itanium.

Because processes on 64-bit have greatly increased memory addressability over 32-bit processes, the 64-bit edition of Analytic Services can handle larger outlines and cache sizes than 32-bit Analytic Services. In computing environments that support it, implementing 64-bit Analytic Services can improve the performance of existing applications and it can sustain much larger applications.

For more information, see “Improving Analytic Services Performance” in the *Database Administrator's Guide*. For information on platform support see *Analytic Services Installation Guide*.

The 64-bit edition of Analytic Services is licensed separately from 32-bit Analytic Services. You cannot install 64-bit Analytic Services using 32-bit files. Instead, you must use separate installation files.

INSTALLATION AND LICENSING

Hyperion now uses a common license server to provide you with a more uniform and consistent method of governing the use of your Hyperion products. Hyperion License Server uses a license file specific to your site to assist you in tracking and monitoring the following information:

- The products that you have purchased
- Your feature options
- The number of users that can access each product
- Your maintenance agreements
- The expiration dates of your license and maintenance agreements

License Server also uses a third-party component to give you one, centrally managed administrative tool for handling license issues. This tool provides the following capabilities:

- Ensuring license compliance

- Monitoring use of licenses
- Generating reports of license events

Because License Server is a process, not a physical server, it need not be installed on a dedicated computer. License Server can be installed on a shared computer, so you can install it in an environment that enables the most efficient use of resources.

For more information about Hyperion License Server, see the *Shared Services Installation Guide*.

HYPERION CONFIGURATION UTILITY

This release of Analytic Services introduces a new common tool, the Configuration Utility. The utility guides you through a series of screens to complete the following configuration tasks:

- Product activation
- Product registration with Hyperion System 9 Shared Services
- Configuration of relational databases as product data sources
- Automatic deployment of products to application servers
- If your product has unique configuration requirements, the Configuration Utility displays additional options.

You can launch the Configuration Utility from the final screen of each product installer or from the start menu (Start -> Programs -> Hyperion System 9 Foundation -> Configuration Utility). The Configuration Utility also enables you to reconfigure Hyperion products. The reconfiguration process is similar to the initial process.

For details, see the *Analytic Services Installation Guide*.

DOCUMENTATION

The following topics discuss documentation improvements for Release 9.0:

- [“Improved Documentation for Aggregate Storage Database Error Messages” on page 8](#)
- [“Documentation Installation Program” on page 8](#)
- [“Analytic Services Documentation Information Map” on page 9](#)

IMPROVED DOCUMENTATION FOR AGGREGATE STORAGE DATABASE ERROR MESSAGES

The Analytic Services Error Messages documentation Describes common Analytic Services errors with possible causes and solutions.

In Release 9.0, this documentation has been enhanced to include information on critical aggregate storage database error messages.

DOCUMENTATION INSTALLATION PROGRAM

Starting with Release 7.0, Analytic Services documentation is installed separately from the software product installation. The documentation installation program is available from the Download Center or from CD in the Analytic Services package. For more information on the documentation installation process, see the *Analytic Services Installation Guide*.

ANALYTIC SERVICES DOCUMENTATION INFORMATION MAP

You can access all Analytic Services documentation from the *Analytic Services Information Map*, an HTML file that is installed with the documentation. Access the information map in either of these ways:

- On Windows, select Start > Programs > Hyperion System 9 BI+ > Analytic Services > Information Map
- Navigate to \$ARBORPATH/docs/esb_infomap.htm.

Note: Procedures for performing administrative tasks are documented in *Administration Services Online Help*.

WHERE TO GET MORE INFORMATION

Except for the most recent information, each topic in this booklet is described in more detail in the documentation.

For answers to questions about the product, contact your authorized technical support provider or

Hyperion Solutions Customer Support

Phone: 203-703-3600 (outside the U.S.A.)

Phone: 877-901-4975 (in the U.S.A.)

Internet: <http://support.hyperion.com>

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