

Glossary

actions Client-oriented commands that are defined and stored on the server and can be used to integrate SSAS with other applications.

additive measure A measure that can be aggregated across all dimensions.

Administrators role A predefined server role that has unrestricted access to the SSAS server.

aggregated data Within a cube, data can be summarized at various dimension levels so that when a query is sent, the cube does not have to calculate the answer from the lowest level of data; it uses the aggregated data. Examples of aggregates in SSAS include minimum, maximum, count, average, and sum.

aggregation A pre-calculated summary of data.

aggregation design An output from the Aggregation Design Wizard and Usage-Based Optimization Wizard that specifies what aggregations will be created when the partition is processed.

Aggregation Design Wizard An SSAS tool for creating aggregations at design time.

Aggregation Manager A sample application for creating custom aggregations.

Analysis Management Objects (AMO) Analysis Management Objects (AMO) is a library of classes designed to manage an instance of Microsoft SQL Server 2005 Analysis Services from a client application.

Analysis Services Migration Wizard Tool that walks you through moving existing SSAS 2000 cube structures to SSAS 2005.

Association Rules A data mining algorithm useful for market basket analysis and product recommendations based on discovered purchasing patterns.

attributes Columns or fields of a dimension that describe or categorize that dimension.

Backup A management task for creating a copy of an existing SSAS database.

breakpoint Integration Services control flow debugging mechanism that you set so that you can pause the control flow execution and observe the execution state at that point in time.

Business intelligence (BI) Turning data into information through organizing, presenting, and analyzing data. SQL Server 2005's BI tools include Integration Services, Reporting Services, and Analysis Services.

Business Intelligence Development Studio (BIDS) The integrated Visual Studio 2005 platform for designing and developing the business intelligence (BI) components of SQL Server 2005, including Integration Services, Analysis Services, and Reporting Services.

Cached Report A report that has the Execution property defined as "Keep a temporary copy of this report."

case Unit of analysis in data mining.

Catalog Database A Reporting Services system database, stored in SQL Server, that contains all the information about the object inside the server.

Cell security The most-granular level of security that protects access to the cube cells.

checkpoint An Integration Services restartability feature that, when configured, lets you rerun a package after debugging it, starting from the point of failure or an earlier step.

classification matrix Predictive models evaluation tool showing numbers of correct and incorrect predictions in a matrix.

- client-initiated notification** A proactive caching notification where the client application notifies the server when it changes data.
- clustering** A data mining algorithm that groups cases in clusters that contain similar characteristics.
- Collation settings** Defines how the database engine handles data sorting based on locale settings, case sensitivity, and binary order.
- column chart** Type of data viewer that displays the summary values of a column selected in the data flow.
- Command-line deployment mode** A Deployment Wizard option for automating deployment.
- configuration file** A file in plain text or XML format with configuration options for a service or an application.
- Connected Mode** A design option in BIDS for making changes directly to the SSAS database.
- connection** A physical connection to a server and database or a file path and filename. Used for operations or as a source or destination for data processing.
- connection manager** Logical definition of the connections made by SSIS control flow or data flow objects during package design and execution. Includes the pointer to a specific server and database or file path and file.
- continuous** Property of an attribute showing that an attribute can take any possible value from a closed or open range.
- control flow** Integration Services workflow engine that contains control flow tasks, containers, and precedent constraints, which manage when tasks and containers execute.
- control flow containers** Provide a grouping mechanism for control flow tasks and other containers.
- control flow precedent constraints** The connectors between tasks and containers that allow the control flow to manage the ordering and workflow of tasks for successes, errors, and advanced workflow handling.
- control flow task** Component in Integration Services that performs an operation such as sending an email, executing an SQL statement, or copying a file from an FTP server. When a control flow task completes, it either succeeded or failed.
- Cube Designer** The main design window within BIDS to design a cube. Includes the functionality to define measures, measure groups, dimension associations to measure groups, calculations, KPIs, actions, and translations.
- cube dimension** An instance of an SSAS database dimension used within a cube. Multiple cube dimensions can be based on the same SSAS database dimension.
- Cube dimension data security** A security mechanism for protecting cube dimension members and their data.
- cubes** Group of related dimensions, attributes, and measures in which measures are summarized and aggregated based on the dimension and attributes; allows quick access to data in a usable form.
- Cube Wizard** Automated cube builder, which walks the designer through a short series of screens and then builds a cube in SSAS.
- Database dimension data security** A security mechanism for protecting database dimension members and their data.
- database role** Defines data access for database-level administration tasks and for end users.
- data-driven subscription** A report subscription that dynamically reads data specific for each subscriber from an SQL Server table.
- Data Flow** Primary data processing feature in SQL Server Integration Services.
- data flow designer** The design tool within the Package designer in BIDS, used to create data processing management and operations with SSIS data flow objects.

data flow destination adapters The location where data is sent to from the data flow pipeline such as to a database table or file.

data flow path The connectors between adapters and transformations that allow the routing of rows and columns between objects in the data flow.

data flow source adapter Extracts data from data sources into the data flow, where it is modified and sent to a destination.

data flow transformation Provides the ability to modify and manipulate data in the SSIS data flow; performs an operation on the data either one row at a time or on several rows of data at once.

data mining A component of SSAS that performs data prediction and data association based on underlying base algorithms.

Data Mining Extensions (DMX) A language to create and query data mining models in Microsoft SQL Server.

data path Connects data sources, data flow transformations, and data flow destinations; the green and red connectors that go from one component to another.

Data Pump Primary data processing mechanism in Data Transformation Services, the predecessor to SQL Server Integration Services.

dataset The part of a report that contains the data source definition, the query, or the procedures to obtain the data and other configurations to query the information from the data source.

data source Analysis Services or Reporting Services item or optional Integration Services project object that provides the information required to connect to a data source. It includes the data source type, connection string, and security credentials.

data source view (DSV) An Analysis Services or Reporting Services element that contains a logical model of the schema of the data source.

Data Transformation Services (DTS) SQL Server 2000 and SQL Server 7.0 extract, transform, and load (ETL) tool, the predecessor to Integration Services.

data viewers SSIS component for debugging and troubleshooting that pauses the execution of the data flow and displays the data in one of a few formats.

Decision Trees A data mining algorithm useful for predicting discrete and continuous variables.

Default instance A single installation of the database engine, Analysis Services, or Reporting Services on a server without a name given for the installation instance.

Deploying SSAS objects A process of sending the design changes to the server.

Deployment set Contains all the files you need to deploy an Integration Services package in a project; created by the Package Deployment Utility.

Deployment Wizard An SSAS tool for incremental deployment.

dimension A related group of properties, columns, or attributes that combine together to provide analysis on a measure by allowing grouping, filtering, and

Dimension Designer The main design interface in BIDS where SSAS dimensions are designed. Includes the ability to define attributes, hierarchies, and translations.

dimension relationships The association between dimensions and measure groups. Dimension relationships can be defined as regular, referenced, many to many, fact, or data mining.

Dimension Wizard Automated design tool that walks a designer through a series of questions and then outputs an SSAS dimension based on the user input.

discrete Property of an attribute showing that an attribute can take only a small set of selected values.

discretized Property of an attribute showing that values of a continuous attribute were grouped in a limited number of discrete groups.

Distinct Count measure A measure that counts unique values.

drillthrough actions Actions that show the fact data behind a cell.

Drillthrough security Security right that controls if the end user has rights to execute drillthrough actions.

DTEExec utility: Integration Services command-line tool for executing a package.

DTEExecUI utility: Visual tool for building the DTEExec command line.

.dtsx file The package file that contains the definition of a package in XML format based on the Integration Services package development in BIDS; the file is located in the project directory where you created the SSIS project.

DTUtil Integration Services command-line utility that performs package management tasks (such as deployment) through command-line or batch file processes; works with packages that are stored in the file system, in SQL Server, or in the SSIS Package Store.

Environment variable configuration type

Saves the configuration information inside the system's global variables collection, which is called an environment variable; you can choose only one property per an environment variable configuration.

error paths The red connectors between data flow components; the data rows that fail a component if the error rows are set to be redirected.

Evaluation operation properties Properties that let you define the conditions that determine the successful evaluation of the constraint.

event handler SSIS element that lets you trap for events and execute alternative code

depending on the execution event; uses the control flow paradigm for workflow processing, which includes all the same control flow tasks and containers that are found in the toolbox of the control flow.

Execution Results Package designer tab that shows the execution results when a package is run within BIDS. This tab is called the Progress tab when the package is executing.

extract, transform, and load (ETL) BI processing in which data is extracted from a source, transformed into a usable format, and loaded into a data warehouse, data mart, and/or cubes for user reporting or analytics.

Failover clustering Using Microsoft Clustering Services' shared-drive model to provide automatic failover to a failover instance if a server has a hardware or software problem that causes the SQL Server 2005 service to stop.

Failover instances What Database Engine instances or Analysis Service instances are called when installed in an MSCS installation. The instance that SQL Server fails over to if a server has a hardware or software problem.

File-level security Security mechanism that lets you apply access rights to a file or folder if your packages reside on a machine's file system.

flight recorder An error and activity log for SQL Server Analysis Services.

Foreach Loop Container One of three primary types of Integration Services containers; allows looping, but instead of providing a condition expression, you loop over a set of objects, such as files in a folder.

For Loop Container One of three primary containers in Integration Services; provides the same functionality as the Sequence Container except that it also lets you run the tasks within it multiple times based on an evaluation condition, such as looping from 1 to 10.

Goal property A expression-based property that defines the KPI goal.

grid Type of data viewer that shows the raw data in columns and rows; the most common data viewer to identify row-level data.

Hierarchical namespace The tree created by all the content that has been published to a Reporting Services server and that starts at the root (the Home folder).

hierarchies Associated attributes within the same dimension that give the user a pre-defined navigation path through the dimension attributes.

histogram Type of data viewer used for numeric columns; shows the distribution of data across a range.

HOLAP Hybrid OLAP storage mode where data is kept in the relational database and aggregations are stored on the server.

Import and Export Wizard Wizard in SQL Server Management Studio (SSMS) that you can use to create Integration Services packages.

in-place upgrade Upgrade in which a SQL Server component is installed with the same instance name as a previous version of the same component without uninstalling the prior version.

Instance A single installation of the database engine, Analysis Services, or Reporting Services on a server. Multiple installations of these services can be installed on a single server, each installation is called an instance of the service.

Instance Renaming tool Analysis Services 2005 tool that can change the name of an installation instance of SSAS to the default instance or another named instance.

Interactive deployment mode A tool that uses the output files generated by an Analysis Services project to deploy the project's metadata to a destination server.

Internet Information Services (IIS) The Web server service for windows.

Item-level role A group of tasks associated with content in the hierarchical namespace.

Kerberos An authentication mechanism used to verify user or host identity.

key attribute An attribute that serves as a primary key for cases in a data mining model.

key performance indicators (KPIs) Quantifiable measures that represent critical success factors.

key sequence attribute An attribute that serves as a primary key for cases in a data mining model and includes information about sequences of events.

key time attribute An attribute that serves as a primary key for cases in a data mining model and includes information about time series of events.

KPI Browser A Cube Designer tool that lets you test the KPIs.

lift chart Predictive models evaluation tool that compares the accuracy of the predictions of each model in a chart.

linear regression A data mining algorithm that is a variation of the Decision Trees algorithm.

Linked Reports A report that has a constant dependency on another report, known as the base report. A linked report has no RDL of its own.

Logical condition properties Properties you can set to apply comparisons across constraints when you have multiple precedence constraints connected to the same task or container; the two logical conditions are Logical AND and Logical OR.

logistic regression A data mining algorithm that is a variation of the Neural Network algorithm.

MDX The query language of Analysis Services.

MDX functions Standard functions that are supported by MDX.

MDX queries Queries described in MDX grammar that an end-user or client application can send to the server to return data.

measure group Groups measures that are related to the same underlying Data Source View (DSV) entity. Typically, all the measures from a single fact table are contained in a single measure group. Cubes can contain one or more measure groups.

measures SSAS objects that represent the numeric facts in the cube.

Microsoft Clustering Services (MSCS) Windows server technology that allows services and service dependencies to move to other servers in the event of a failure.

Mixed Mode Authentication Lets users connect to SQL Server with Windows Authentication or with authentication defined in SQL Server.

model cases Source cases used for training a model.

model content The knowledge learned by a data mining algorithm, stored in an SSAS database, in the form of a table with nested tables.

MOLAP Multidimensional OLAP storage mode that stores the data and aggregations in file-based multidimensional structures on the server.

msdb SSIS roles Fixed database-level roles assigned through the SQL Server msdb database.

Multidimensional Expressions (MDX) Language used in OLAP structures to query multidimensional data or to create expressions in OLAP structures.

Naive Bayes A data mining algorithm useful for classification and prediction.

named calculation A named calculation is a computed column added to entities in a DSV without changing the underlying table or view structure. For example, a Full Name could be added that is a calculation as the First Name plus the Last Name in a table.

Named calculations use the query language of the underlying database.

Named instance A single installation of the database engine, Analysis Services, or Reporting Services on a server where a name is specified for the installation instance.

named query A SELECT query that is added to a DSV that appears as a new entity, which can be used to base objects on in the cube.

named sets A pre-defined MDX set that has an alias.

Neural Network An advanced data mining algorithm useful for prediction.

Node A server in a cluster.

non-additive measure A measure that cannot be meaningfully aggregated across any dimension.

on-demand execution Viewing a report at any arbitrary selected time.

Online Analytical Processing (OLAP) As opposed to Online Transaction Processing (OLTP), OLAP is a type of database structure that is designed for reporting and analytics. Basic OLAP concepts include measures, dimensions, and cubes.

package The core object within Integration Services that contains the business logic to handle workflow and data processing, which you use to transform data from sources to destinations and to handle the timing precedence of when things process. You create packages by using the Import and Export Wizard in SQL Server Management Studio (SSMS) or through the Business Intelligence Development Studio (BIDS).

Package Configurations Organizer Integration Services tool that lets you enable or disable a package's package configurations, add and remove configurations assigned to the package, and define the order in which the configurations are applied.

Package Configuration Wizard Integration Services wizard that lets you create new package configurations.

Package Deployment Utility Integration Services utility found in BIDS that lets you create the package deployment set, which contains all the files that you need to deploy the packages in a project.

Package encryption Security applied to the underlying package definition where either all or a portion of the XML is encrypted.

Package Installation Wizard Deploys the package deployment set (aka installer kit) to the destination.

Package installer kit The output of the Package Deployment Utility, which contains all the files you need to deploy an SSIS project.

Package Migration Wizard Tool that walks the user through a best-effort migration of DTS packages to SSIS; can be started either through SSMS or through BIDS.

Package password A password that can be applied to a package where the password is needed to unencrypt the encrypted information. If the entire package is encrypted, the password is needed to view the package definition, modify the package, or execute the package.

Parent package variable configuration type

With this configuration type, when a package is executed from another SSIS package by using the Execute Package Task, its variable values are available to the child package through the parent package variable configuration.

partition A physical unit of measure group that stores data.

partition slice A SELECT statement that defines the number of rows stored in a partition.

Performance counter A built-in Windows OS performance object that collects performance data from hardware and software resources.

Permission A combination of security policies and the objects to which they apply.

perspectives Logical subviews of the cube metadata.

precedence constraints SSIS Control flow feature that provides ordering and workflow management of tasks. Precedence constraints can be defined with success, completion or failure requirements, or they can use advanced expressions or logical operators.

prediction join A special data mining join between a mining model and data from a relational rowset; you make a prediction join in order to add predictions to the relational rowset.

Proactive caching An SSAS mechanism for processing the cube automatically.

Proactive caching notifications Server settings for subscribing to changes in the data source.

ProactiveCaching property Allows an SSAS cube object to be processed through an automated process, such as by changes in underlying data or through a defined schedule.

Process Add A processing option that loads only new data.

Process Data A processing option that loads the object with data without building indexes and aggregations.

Process Default A processing option that applies the tasks required to bring an object in a fully processed state.

Process Full A processing option that drops the object stores and rebuilds the object.

Process Index A processing option that retains data and builds only the indexes and aggregations.

Processing SSAS objects Loading the objects with data.

Process Structure A processing option that loads data in a mining structure without affecting the models in the structure.

Process Update A dimension processing option that applies member inserts, deletes, and updates.

profit chart Predictive models evaluation tool that displays the theoretical increase in

profit that is associated with using each model in a chart.

Progress tab See Execution Results.

Project Mode A design option in BIDS for making design changes while disconnected from the server.

ProtectionLevel setting Package security setting that encrypts package definition information that resides in the underlying XML file; is a package-level setting that defines what should be encrypted and how it should be encrypted for the entire package.

pull delivery A delivery initiated by a user.

push delivery A delivery initiated by a service.

query log A list of user queries captured in Analysis Services for future optimization of aggregations.

Read-contingent permission A permission that determines whether cells derived from restricted cells are permitted.

Read permission A permission that determines the cells that are viewable to members of the role.

Read/write permission A permission that controls if the user has rights to change partition data of a write-enabled partition.

Registry entry configuration type Lets you save package properties and settings inside of your machine's registry; you can select multiple configuration settings at a time and store them in the registry.

regular actions Multi-purpose actions that can retrieve information from different places.

rendering format The final look of a report.

Report Builder The preferred tool for information workers who need to create reports.

report deployment Moving a report to production by storing it to a report server; synonym for report publishing.

Report Designer The preferred tool for report developers or end users who want to create complex reports; hosted in Visual Studio

2005 (Business Intelligence Development Studio).

Report Model Wizard The Report Model Wizard is an assistant included with BIDS that walks the user through the development of new Report Models. You can create models with or without the Report Model Wizard.

report publishing Moving a report to production by storing it to a report server; synonym for report deployment.

report-specific schedule A delivery schedule specific for a report.

Report Wizard An tool included with Report Designer that walks the user through developing reports; can be used to create reports that are later customized in Report Designer.

reporting actions Actions that can request SSRS reports.

Reporting Services Configuration Manager

The tool that is used to set up all the supporting components and settings that are required for an SSRS instance to be enabled.

Restore A management task for bringing back an SSAS database from a backup.

ROLAP Relational OLAP storage mode where data and aggregations are kept in the relational database.

role SSAS database object you use to group users based on similar privileges.

rsconfig.exe Command-line tool that manages the connection and settings for the SSRS instance; used mainly to manage the repository database connection but also used to set up the default credentials for report execution against databases.

rs.exe Command-line tool that provides a way to run SQL Server Reporting Services script files through the command line.

rskeymgmt.exe Command-line utility for managing the symmetric encryption keys that SQL Server Reporting Services uses to secure and encrypt content in the Report Server database.

- scatter plot** Type of data viewer that reveals data relationships between two numeric columns, highlighting outliers.
- scheduled polling notification** A proactive caching notification where the server queries the database periodically to discover data changes.
- Script Task** Control flow task that uses the Visual Basic .NET for advanced scripting in an SSIS package.
- Secure Sockets Layer (SSL)** Secure protocol used for encrypting Internet traffic.
- semi-additive measures** Measures that cannot be meaningfully aggregated across the Time dimension.
- Sequence Clustering** A data mining algorithm that finds patterns in sequences.
- Sequence Container** One of three primary containers in Integration Services; lets you organize subordinate tasks by grouping them together, and lets you apply transactions or assign logging to the container.
- server role** Security mechanism that provides complete SQL Server Analysis Services access to assigned users—there is only one server role, and its assignment is available through the server properties window.
- Service pack** A program update to address application bugs, performance, and enhancements.
- sets** MDX constructs that return selected dimension members.
- shared schedule** A delivery schedule shared among multiple reports.
- side-by-side migration** Upgrade technique in which the new version of SQL Server is installed on the same machine or a different machine without affecting the prior version; server objects are migrated from the prior version to the newer version without affecting the existing objects.
- Snapshot (Report)** A report snapshot is an execution of a report that is stored in the catalog main database to be used as the source for future requests. A report snapshot can be kept in the Report History area of the report.
- SQL Server Agent** SQL Server scheduling tool that you can use to run packages on a recurring basis, whether they are stored in the file system or in SQL Server, or to help schedule report execution.
- SQL Server Agent job** Jobs that you define to run on a specific schedule, in response to a specific event, or that you can run manually; each SQL Server Agent job can have one or more steps.
- SQL Server Agent job step** One task within a SQL Server Agent job; you can have multiple steps per each job.
- SQL Server configuration type** Uses an SQL Server table to store multiple package configurations.
- SQL Server Management Studio (SSMS)** The administration tool used for SQL Server 2005 services.
- SQL Server Native Client** SQL Server 2005 OLE DB access provider.
- SQL Server notification** A proactive caching notification that listens for SQL Server trace events.
- SQL Server Profiler** Activity monitor application that captures database engine and Analysis Services user query, error, and services activity and logs.
- SQL Server Profiler event** A notification generated by the server.
- SQL Server 2005 Upgrade Advisor** Tool provided with SQL Server 2005 that helps plan the upgrade from prior versions.
- SSIS deployment** The operation of moving a package or packages from one environment to another.
- SSIS package configurations** Settings saved to a file that let you update package properties, variable values, and connections at runtime.

SSIS service Manages packages stored in SQL Server.

stand-alone connection A connection in an SSIS package that is not associated with project Data Source.

star schema A common phrase that describes a fact table with single-level dimension tables, where the dimension table primary keys are referenced as foreign keys in the fact table. A star schema is a type of dimension model design for a data warehouse or data mart database.

Status property An expression-based property that defines the KPI status.

StorageMode property The type of OLAP storage that is used for an SSAS object. The storage modes include MOLAP (multidimensional OLAP, where the data and aggregates are stored in the cube), ROLAP (relational OLAP, where the cube directly uses the underlying database for storage), and HOLAP (hybrid OLAP, where the SSAS engine uses both the relational database and the cube for storage).

subscription Ordering a report delivery on a schedule.

symmetric encryption key Key that SQL Server Reporting Services uses to secure and encrypt content in the Report Server database.

Synchronize Database Wizard A tool for synchronizing two SSAS databases.

System-level role A group of tasks associated with administrative, server-wide actions that are applied outside of the hierarchical namespace.

Term Extraction Transformation A SSIS transformation that extracts specific words from texts.

Term Lookup transformation A SSIS transformation that counts number of occurrences of terms in texts.

text mining Analyzing text by using data mining methods.

time dimension Most common dimension type to handle date attributes (date, day of month, week of year, month, quarter) and date hierarchies (Year->Quarter->Month->Day, Year->Week->Day).

Time Series A data mining algorithm useful for predicting continuous columns in forecasting scenarios.

Trace An SSAS server object that outputs selected events.

transaction The unit of work—a single statement or series of statements—that is either successful and affects data or is not successful and the system returns the data to the state it was originally in before statement execution.

TransactionOption property The property you must set to enable a transaction within an Integration Services package.

transformation Provides the ability to modify and manipulate data in the Integration Services data flow.

translations Translated versions of the cube metadata and data.

Trend property An expression-based property that defines the KPI trend.

tuple A multidimensional coordinate that identifies a single cell in the cube space.

Unprocess A processing option that deletes the object data or the data in the containing objects.

Usage-Based Optimization Wizard An SSAS tool for creating aggregations based on the actual queries sent to the server.

Value property An expression-based property that defines the KPI value.

variable An attribute of a case in data mining.

Visual Studio (VS) Microsoft developer tool suite for application and web programming.

Web farm Multiple machines used to handle large volumes of responses to Internet requests.

Windows Authentication Active directory domain or local machine security validation for users or groups.

Windows Distributed Transaction Coordinator (DTC) The service that transactions in Integration Services packages use; the DTC service

needs to be started on the machine for transactions to work.

Windows Performance Monitor (PerfMon) A Windows application for monitoring utilization of hardware and software resources.

XML configuration file configuration type Stores configuration settings in an XML file in the file system; you can store multiple configurations in a single XML file.

XML for Analysis (XMLA) A protocol for communicating between client applications and the SSAS server.