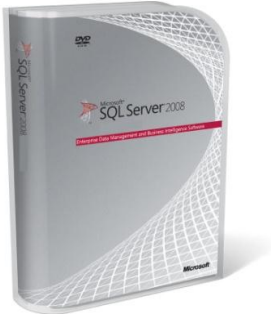




SQL Server 2008 Native Data Access



Enhanced Microsoft® SQL Server® Connectivity through SQL Server Native Client and the .NET 3.5 SQLClient managed provider provides a high performance, versatile data access library that enables developers to take advantage of the new capabilities of SQL Server 2008.

<http://www.microsoft.com/sqlserver/2008/en/us/native-data-access.aspx>

TOP NEW FEATURES

- Use table-valued parameters to work with tabular data.
- Store and access FILESTREAM data with transactional consistency.
- Use sparse columns to store NULL values efficiently.
- Take advantage of support for UDTs larger than 8 KB.
- Incorporate spatial data into applications using SQL Server 2008's new GEOMETRY and GEOGRAPHY data types.
- Use enhanced support for date and time data to simplify migration to SQL Server 2008.
- Take advantage of the new connection plan support.

BUILD HIGH-PERFORMANCE DATA ACCESS SOLUTIONS

Build high-performance data access applications by using SQL Server Native Client or the SQL Client managed provider.

Benefit from performance optimizations

Take advantage of performance enhancements in SQL Server 2008 Native Client. Achieve up to 10% performance improvement in some scenarios.

Work efficiently with tabular data

Encapsulate tabular data in a client application efficiently by using table-valued parameters.

Table-valued parameters

Pass table-valued parameters to the server by using a single command and continue to operate on the data as a table in Transact-SQL code. Take advantage of the improved programming model and

performance enhancements provided by table-valued parameters. Benefit from cleaner, more maintainable code, faster performance, and improved scalability for large data volumes.

Connection plans

By using connection plans to specify the server instance that an application will connect to, you centralize the management of which servers to use by decouples the database application from a dependency on a specific server. A database administrator can update a connection plan to use another SQL Server instance without the need to change per user connection strings.

BEYOND RELATIONAL DATA

Access both relational and non-relational data in SQL Server 2008 to build comprehensive solutions.

Access FILESTREAM data

Store unstructured data, such as documents and images, on the file system by using the new FILESTREAM data type and maintain transactional integrity with the database. Take advantage of a dual-programming model that enables developers to use Transact-SQL or IO APIs to access the data by using SQL Client or SQL Server Native Client.

Manage NULL values efficiently

Efficiently manage columns that contain large amounts of NULL data by using sparse columns, new in SQL Server 2008, that consume no physical space for storing NULL values. Model property sets and support highly end-user configurable applications 'in the cloud' with great flexibility and efficiency.

Use large user-defined types

Use SQL Server 2008 to go beyond the 8-KB limit of previous versions of SQL Server for user-defined types (UDTs). Use enhanced support for UDTs in SQL Server 2008. Retrieve UDTs as live CLR objects in managed client applications for a consistent, intuitive programming model or as BLOBs with well-known storage layouts in native applications.

Incorporate spatial capabilities into business applications

Extend business applications by incorporating geographical capabilities through the spatial data support in SQL Server 2008. Use the GEOGRAPHY and GEOMETRY data types to store spatial data and perform spatial operations. Integrate with industry-standard geospatial applications by taking advantage of the comprehensive library of functions supported by these data types.

Effectively work with hierarchical data

Support hierarchical data structures with greater flexibility and performance than ever before by using the new HIERARCHYID data type.

MIGRATE TO SQL SERVER 2008

Easily migrate existing applications to SQL Server 2008 and SQL Server 2008 Native Client or the .NET 3.5 SQLClient managed provider.

Migrate from SQL Server 2005 Native Client as needed

Take advantage of SQL Server Native Client compatibility with SQL Server 2000, SQL Server 2005, and SQL Server 2008. Upgrade servers to SQL Server 2008 and continue to use SQL Server 2005 Native Client in client applications where new or enhanced features in SQL Server 2008 are not required.

New Date and Time support

Simplify migration from Oracle, DB2, and Sybase applications to SQL Server 2008 by using new date and time data types and improve cross-system compatibility. SQL Server 2008 Native Client and the .NET 3.5 SQLClient managed provider include support for the following SQL Server 2008 data types:

- DATE. Date-only data type
- TIME. Time-only data type
- DATETIMEOFFSET. Time zone-aware data type
- DATETIME2. Supports a larger fractional second and year range than DATETIME

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