

What's New

What's New in Microsoft SQL Server 2000

Microsoft® SQL Server™ 2000 extends the performance, reliability, quality, and ease-of-use of Microsoft SQL Server version 7.0. Microsoft SQL Server 2000 includes several new features that make it an excellent database platform for large-scale online transactional processing (OLTP), data warehousing, and e-commerce applications.

The OLAP Services feature available in SQL Server version 7.0 is now called SQL Server 2000 Analysis Services. The term OLAP Services has been replaced with the term Analysis Services. Analysis Services also includes a new data mining component. For more information, see [What's New in Analysis Services](#).

The Repository component available in SQL Server version 7.0 is now called Microsoft SQL Server 2000 Meta Data Services. References to the component now use the term Meta Data Services. The term repository is used only in reference to the repository engine within Meta Data Services. For more information, see [What's New in Meta Data Services](#).

The What's New topics contain brief overviews of the new features and links to relevant conceptual topics that provide more detailed information. These conceptual topics provide links to topics that describe the commands or statements you use to work with these features.

What's New

Relational Database Enhancements

Microsoft® SQL Server™ 2000 introduces several server improvements and new features:

[XML Support](#)

[Federated Database Servers](#)

SQL Server 2000 introduces Net-Library support for Virtual Interface Architecture (VIA) system-area networks that provide high-speed connectivity between servers, such as between application servers and database servers. For more information, see [Communication Components](#).

[User-Defined Functions](#)

[Indexed Views](#)

[New Data Types](#)

[INSTEAD OF and AFTER Triggers](#)

[Cascading Referential Integrity Constraints](#)

[Collation Enhancements](#)

Collations support code page translations. Operations with **char** and **varchar** operands having different code pages are now supported. Code page translations are not supported for **text** operands. You can use ALTER DATABASE to change the default collation of a database. For more information, see [SQL Server Collation Fundamentals](#) and [ALTER DATABASE](#).

[Full-Text Search Enhancements](#)

[Multiple Instances of SQL Server](#)

[Index Enhancements](#)

The CREATE INDEX statement can now use the **tempdb** database as a work

area for the sorts required to build an index. This results in improved disk read and write patterns for the index creation step, and makes it more likely that index pages will be allocated in contiguous strips. In addition, the complete process of creating an index is eligible for parallel operations, not only the initial table scan. For more information, see [tempdb and Index Creation](#), [Parallel Operations Creating Indexes](#), and [CREATE INDEX](#).

Failover Clustering Enhancements

Net-Library Enhancements

64-GB Memory Support

Distributed Query Enhancements

SQL Server 2000 distributed queries add support for the OLE DB Provider for Exchange and the Microsoft OLE DB Provider for Microsoft Directory Services. For more information, see [OLE DB Provider for Microsoft Directory Services](#) and [OLE DB Provider for Exchange](#).

Updatable Distributed Partitioned Views

Kerberos and Security Delegation

Backup and Restore Enhancements

Users can define passwords for backup sets and media sets that prevent unauthorized users from accessing SQL Server backups. For more information, see [BACKUP](#).

Scalability Enhancements for Utility Operations

Text in Row Data

What's New

XML Integration of Relational Data

The Microsoft® SQL Server™ 2000 relational database engine natively supports Extensible Markup Language (XML).

You can now access SQL Server 2000 over HTTP using a Universal Resource Locator (URL). You can define a virtual root on a Microsoft Internet Information Services (IIS) server, which gives you HTTP access to the data and XML functionality of SQL Server 2000.

You can use HTTP, ADO, or OLE DB to work with the XML functionality of SQL Server 2000:

- You can define XML views of SQL Server 2000 databases by annotating XML-Data Reduced (XDR) schemas to map the tables, views, and columns that are associated with the elements and attributes of the schema. The XML views can then be referenced in XPath queries, which retrieve results from the database and return them as XML documents.
- The results of SELECT statements can be returned as XML documents. The SQL Server 2000 Transact-SQL SELECT statement supports a FOR XML clause that specifies that the statement results be returned in the form of an XML document instead of a relational result set. Complex queries, or queries that you want to make secure, can be stored as templates in an IIS virtual root, and executed by referencing the template name.
- You can expose the data from an XML document as a relational rowset using the new OPENXML rowset function. OPENXML can be used everywhere a rowset function can be used in a Transact-SQL statement, such as in place of a table or view reference in a FROM clause. This allows you to use the data in XML documents to insert, update, or delete data in the tables of the database, including modifying multiple rows in multiple tables in a single operation.

See Also

[SQL Server and XML Support](#)

[XML and Internet Support Overview](#)

What's New

Graphical Administration Enhancements

Microsoft® SQL Server™ 2000 introduces these graphical administration improvements and new features:

Log Shipping

SQL Profiler Enhancements

SQL Profiler has been enhanced to provide auditing of SQL Server activities, up to the auditing levels required by the C2 level of security defined by the United States government. For more information, see [Auditing SQL Server Activity](#) and [Monitoring with SQL Profiler](#).

SQL Query Analyzer Enhancements

SQL Query Analyzer includes a stored procedure debugger. SQL Query Analyzer also includes templates that can be used as the starting points for creating objects such as databases, tables, views, and stored procedures. For more information, see [SQL Query Analyzer](#) and [Overview of SQL Query Analyzer](#).

Copy Database Wizard

What's New

Replication Enhancements

Microsoft® SQL Server™ 2000 introduces the following replication improvements and new features:

[Implementing Replication](#)

[Merge Replication](#)

[Transactional Replication](#)

[Queued Updating](#)

When you create a publication with the queued updating option enabled and a Subscriber performs INSERT, UPDATE, or DELETE statements on published data, the changes are stored in a queue. The queued transactions are applied asynchronously at the Publisher when network connectivity is restored.

Because the updates are propagated asynchronously to the Publisher, the same data may have been updated by the Publisher or by another Subscriber and conflicts can occur when applying the updates. Conflicts are detected automatically and several options for resolving conflicts are offered.

For more information, see [Queued Updating](#).

[Transforming Published Data](#)

Using transformable subscriptions in your replication topology allows you to customize and send published data based on the requirements of individual Subscribers, including performing data type mappings, column manipulations, string manipulations, and use of functions as data is published.

For more information, see [Transforming Published Data](#).

[Replication Usability](#)

What's New

Data Transformation Services Enhancements

Microsoft® SQL Server™ 2000 introduces these Data Transformation Services (DTS) enhancements and new features:

[New Custom Tasks](#)

[Enhanced Logging Facilities](#)

You can generate exception files for transformation tasks. When you log to exception files, you can save source and destination error rows to a file through the DTS OLE DB text file provider and re-process the error rows.

[Saving DTS Packages to Visual Basic Files](#)

[Using the Multiphase Data Pump](#)

[Using Parameterized Queries](#)

[Using Global Variables to Pass Information Between DTS Packages](#)

What's New

Analysis Services Enhancements

Microsoft® SQL Server™ 2000 Analysis Services includes the former OLAP Services. It also includes a new data mining component. For more information about data mining and the other new features of Analysis Services, see [What's New in Analysis Services](#).

What's New

Meta Data Services Enhancements

Microsoft® SQL Server™ 2000 Meta Data Services includes the former Microsoft Repository. For more information about the new features of Meta Data Services, see [What's New in Meta Data Services](#).

What's New

English Query Enhancements

English Query introduces new features such as:

- Greater integration with Microsoft® Visual Studio®, Analysis Services, and Full-Text Search.
- A graphical user interface for English Query authoring.
- The SQL Project Wizard.
- An XML-based language for persisting English Query model information.

For more information, see [What's New in English Query](#).

What's New

Documentation Enhancements

These enhancements and new features have been made to the documentation for Microsoft® SQL Server™ 2000:

[F1 Help Integrated With SQL Server Books Online](#)

[SQL Server Books Online Supports Subsets](#)

[Thumbnail Art](#)

[Glossary Improvements](#)

[Easier to Access Related Topics](#)