



# Microsoft® SQL Server® 2012



## Features Supported by the Editions of SQL Server 2012

This topic provides details of features supported by the different editions of SQL Server 2012.

All the current features of SQL Server 2008 R2 are available in the corresponding editions of SQL Server 2012:

SQL Server 2008 R2  
SQL Server 2008

**Note:**

SQL Server is available in an Evaluation edition for a 180-day trial period.

For more information, see the SQL Server Trial Software Web Site.

**Note:**

For features supported by Evaluation and Developer editions see the SQL Server Enterprise feature set.

To navigate to the table for a SQL Server technology, click on its link:

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## Cross-Box Scale Limits

Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
Maximum Compute Capacity Used by a Single Instance (SQL Server Database Engine) <sup>1</sup>	Operating System maximum	Limited to lesser of 4 Sockets or 16 cores	Limited to lesser of 4 Sockets or 16 cores	Limited to lesser of 4 Sockets or 16 cores	Limited to lesser of 1 Socket or 4 cores	Limited to lesser of 1 Socket or 4 cores	Limited to lesser of 1 Socket or 4 cores
Maximum Compute Capacity Used by a Single Instance (Analysis Services, Reporting Services) <sup>1</sup>	Operating system maximum	Operating system maximum	Limited to lesser of 4 Sockets or 16 cores	Limited to lesser of 4 Sockets or 16 cores	Limited to lesser of 1 Socket or 4 cores	Limited to lesser of 1 Socket or 4 cores	Limited to lesser of 1 Socket or 4 cores
Maximum memory utilized (SQL Server Database Engine)	Operating system maximum	64 GB	64 GB	64 GB	1 GB	1 GB	1 GB
Maximum memory utilized (Analysis Services)	Operating system maximum	Operating system maximum	64 GB	N/A	N/A	N/A	N/A
Maximum memory utilized (Reporting Services)	Operating system maximum	Operating system maximum	64 GB	64 GB	4 GB	N/A	N/A
Maximum relational Database size	524 TB	524 TB	524 TB	524 TB	10 GB	10 GB	10 GB

<sup>1</sup> For more information, see [Compute Capacity Limits by Edition of SQL Server](#).

## High Availability (AlwaysOn)

Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
Server Core support <sup>1</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Log Shipping	Yes	Yes	Yes	Yes			
Database mirroring	Yes	Yes (Safety Full Only)	Yes (Safety Full Only)	Witness only	Witness only	Witness only	Witness only
Failover Clustering	Yes (Node support: Operating system maximum)	Yes (Node support: 2)	Yes (Node support: 2)				
Backup compression	Yes	Yes	Yes				
Database snapshot	Yes						
AlwaysOn Availability Groups	Yes						
SQL Server Multi-Subnet Clustering	Yes						
Connection Director	Yes						
Online page and file restore	Yes						
Online indexing	Yes						
Online schema change	Yes						
Fast recovery	Yes						
Mirrored backups	Yes						
Hot Add Memory and CPU2	Yes						

<sup>1</sup> For more information on installing Microsoft SQL Server 2012 Release Candidate 0 (RC 0) on Server Core, see [Install SQL Server 2012 on Server Core](#).

## Scalability and Performance

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Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
Multi-instance support	50	50	50	50	50	50	50
Table and index partitioning	Yes						
Data compression	Yes						
Resource Governor	Yes						
Partition Table Parallelism	Yes						
Multiple Filestream containers	Yes						

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## Security

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Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
C2 compliant audit mode	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SQL Server audit	Yes						
Transparent database encryption	Yes						
Extensible Key Management	Yes						

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## Replication

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Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
SQL Server change tracking	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Merge replication	Yes	Yes	Yes	Yes (Subscriber only)	Yes (Subscriber only)	Yes (Subscriber only)	Yes (Subscriber only)
Transactional replication	Yes	Yes	Yes	Yes (Subscriber only)	Yes (Subscriber only)	Yes (Subscriber only)	Yes (Subscriber only)
Snapshot replication	Yes	Yes	Yes	Yes (Subscriber only)	Yes (Subscriber only)	Yes (Subscriber only)	Yes (Subscriber only)
Heterogeneous subscribers	Yes	Yes	Yes				
Oracle publishing	Yes						
Peer to Peer transactional replication	Yes						

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## Management Tools

Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
SQL Management Objects (SMO)	Yes	Yes	Yes <sup>1</sup>	Yes	Yes	Yes	Yes
SQL Configuration Manager	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SQL CMD (Command Prompt tool)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SQL Server Management Studio	Yes	Yes	Yes	Yes	Yes	Yes	
Distributed Replay – Admin Tool	Yes	Yes	Yes	Yes	Yes	Yes	
Distributed Replay - Client	Yes	Yes	Yes	Yes			
Distributed Replay - Controller	Yes (Enterprise supports up to 16 clients, Developer supports only 1 client)	Yes (1 client support only)	Yes (1 client support only)	Yes (1 client support only)			
SQL Profiler	Yes	Yes	Yes	No <sup>2</sup>	No <sup>2</sup>	No <sup>2</sup>	No <sup>2</sup>
SQL Server Agent	Yes	Yes	Yes	Yes			
Microsoft System Center Operations Manager Management Pack	Yes	Yes	Yes	Yes			
Database Tuning Advisor (DTA)	Yes	Yes	Yes <sup>3</sup>	Yes <sup>3</sup>			

<sup>1</sup> SMO is not available for 64-bit version of Standard edition.

<sup>2</sup> SQL Server Web, SQL Server Express, SQL Server Express with Tools, and SQL Server Express with Advanced Services can be profiled using SQL Server Standard and SQL Server Enterprise editions

<sup>3</sup> Tuning enabled only on Standard edition features.

## RDBMS Manageability

Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
User Instances					Yes	Yes	Yes
Dedicated admin connection	Yes	Yes	Yes	Yes	Yes (under trace flag)	Yes (under trace flag)	Yes (under trace flag)
PowerShell scripting support	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SysPrep support <sup>1</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Support for Data-tier application component operations – extract, deploy, upgrade, delete	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Policy automation (check on schedule and change)	Yes	Yes	Yes	Yes			
Performance data collector	Yes	Yes	Yes	Yes			
Able to enroll as a managed instance in a multi-instance management	Yes	Yes	Yes	Yes			
Standard performance reports	Yes	Yes	Yes	Yes			
Plan guides and plan freezing for plan guides	Yes	Yes	Yes	Yes			
Direct query of indexed views (using NOEXPAND hint)	Yes	Yes	Yes	Yes			
Automatic indexed view maintenance	Yes	Yes	Yes	Yes			

Distributed partitioned views	Yes	Partial. Distributed Partitioned Views are not updatable	Partial. Distributed Partitioned Views are not updatable	Partial. Distributed Partitioned Views are not updatable	Partial. Distributed Partitioned Views are not updatable	Partial. Distributed Partitioned Views are not updatable	Partial. Distributed Partitioned Views are not updatable
Parallel indexed operations	Yes						
Automatic use of indexed view by query optimizer	Yes						
Parallel consistency check	Yes						
SQL Server utility control point	Yes						

<sup>1</sup> SysPrep is supported for stand-alone instances of Database Engine and Reporting Services. For more information, see [Considerations for Installing SQL Server Using SysPrep](#).

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## Development Tools

Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
Microsoft Visual Studio Integration	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SQL Server Developer Studio	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Intellisense (Transact-SQL and MDX) <sup>1</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SQL Server Data Tools (SSDT)	Yes	Yes	Yes	Yes	Yes		
SQL query edit and design tools <sup>1</sup>	Yes	Yes	Yes				
Version control support <sup>1</sup>	Yes	Yes	Yes				
MDX edit, debug, and design tools <sup>1</sup>	Yes	Yes	Yes				

<sup>1</sup> This feature is not available for 64-bit version of Standard edition.

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## Programmability

Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
Common Language Runtime (CLR) Integration	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Native XML support	Yes	Yes	Yes	Yes	Yes	Yes	Yes
XML indexing	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MERGE & UPSERT Capabilities	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FILESTREAM support	Yes	Yes	Yes	Yes	Yes	Yes	Yes
File Table	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Date and Time datatypes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Internationalization support	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Full text semantic search	Yes	Yes	Yes	Yes	Yes		
Specification of language in query	Yes	Yes	Yes	Yes	Yes		
Service Broker (messaging)	Yes	Yes	Yes	No (Client only)	No (Client only)	No (Client only)	No (Client only)
Web services (HTTP/SOAP endpoints)	Yes	Yes	Yes	Yes			
T-SQL endpoints	Yes	Yes	Yes	Yes			

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## Integration Services

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Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
SQL Server Import and Export Wizard	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Built-in data source connectors	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SSIS designer and runtime	Yes	Yes	Yes				
Basic Transforms	Yes	Yes	Yes				
Basic data profiling tools	Yes	Yes	Yes				

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## Integration Services - Advanced Adapters

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Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
High performance Oracle destination	Yes						
High performance Teradata destination	Yes						
SAP BW source and destination	Yes						
Data mining model training destination adapter	Yes						
Dimension processing destination adapter	Yes						
Partition processing destination adapter	Yes						

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## Integration Services - Advanced Transforms

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Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
Persistent (high performance) lookups	Yes						
Data mining query transformation	Yes						
Fuzzy grouping and lookup transformations	Yes						
Term extractions and lookup transformations	Yes						

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## Master Data Services

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Note: Master Data Services is available on the 64-bit editions of Business Intelligence and Enterprise only.

Microsoft SQL Server 2012 Release Candidate 0 (RC 0) Enterprise is available when upgrading from SQL Server 2008 R2 Enterprise only.

Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
Master Data Services database	Yes	Yes					
Master Data Manager web application	Yes	Yes					

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## Data Warehouse

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Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
Create cubes without a database	Yes	Yes	Yes				
Auto-generate staging and data warehouse schema	Yes	Yes	Yes				
Change data capture	Yes						
Star join query optimizations	Yes						
Scalable read-only Analysis Services configuration	Yes						
Proactive caching	Yes						
Parallel query processing on partitioned tables and indices	Yes						
ColumnStore Indexes	Yes						

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## Analysis Services

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Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
Scalable Shared Databases (Attach/Detach, Read only databases)	Yes	Yes					
High Availability	Yes	Yes	Yes				
Programmability (AMO, ADOMD.Net, OLEDB, XML/A, ASSL)	Yes	Yes	Yes				

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## BI Semantic Model (Multidimensional)

Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
Semi-additive Measures	Yes	Yes					
Hierarchies	Yes	Yes	Yes				
KPIs	Yes	Yes	Yes				
Perspectives	Yes	Yes					
Actions	Yes	Yes	Yes				
Account intelligence	Yes	Yes	Yes				
Time Intelligence	Yes	Yes	Yes				
Custom rollups	Yes	Yes	Yes				
Writeback cube	Yes	Yes	Yes				
Writeback dimensions	Yes	Yes					
Writeback cells	Yes	Yes	Yes				
Drill through	Yes	Yes	Yes				
Advanced hierarchy types (Parent-Child, Ragged Hierarchies)	Yes	Yes	Yes				
Advanced dimensions (Reference dimensions, many-to-many dimensions)	Yes	Yes	Yes				
Linked measures and dimensions	Yes	Yes					
Translations	Yes	Yes					
Aggregations	Yes	Yes	Yes				



Multiple Partitions	Yes	Yes	Yes, up to 3				
Proactive caching	Yes	Yes					
Custom Assemblies (stored procs)	Yes	Yes	Yes				
MDX queries and scripts	Yes	Yes	Yes				
Role-based security model	Yes	Yes	Yes				
Dimension and Cell-level Security	Yes	Yes	Yes				
Scalable string storage	Yes	Yes	Yes				
MOLAP, ROLAP, HOLAP storage modes	Yes	Yes	Yes				
Binary and compressed XML transport	Yes	Yes	Yes				
Push-mode processing	Yes	Yes					
Direct Writeback	Yes	Yes					
Measure Expressions	Yes	Yes					

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## BI Semantic Model (Tabular)

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Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
Hierarchies	Yes	Yes					
KPIs	Yes	Yes					
Semi-additive Measures	Yes	Yes					
Perspectives	Yes	Yes					
Translations	Yes	Yes					
DAX calculations, DAX queries, MDX queries	Yes	Yes					
Row-level Security	Yes	Yes					
Partitions	Yes	Yes					
VertiPaq and DirectQuery storage modes (Tabular only)	Yes	Yes					

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## PowerPivot for SharePoint

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Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
SharePoint farm integration based on shared service architecture	Yes	Yes					
Usage reporting	Yes	Yes					
Health monitoring rules	Yes	Yes					
PowerPivot Gallery	Yes	Yes					
PowerPivot Data Refresh	Yes	Yes					
PowerPivot Data Feeds	Yes	Yes					

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## Data Mining

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Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
Standard Algorithms	Yes	Yes	Yes				
Data Mining Tools (Wizards, Editors Query Builders)	Yes	Yes	Yes				
Cross Validation	Yes	Yes					
Models on Filtered Subsets of Mining Structure Data	Yes	Yes					
Time Series: Custom Blending	Yes	Yes					

Between ARTXP and ARIMA Methods							
Time Series: Prediction with New Data	Yes	Yes					
Unlimited Concurrent DM Queries	Yes	Yes					
Advanced Configuration & Tuning Options for Data Mining Algorithms	Yes	Yes					
Support for plug-in algorithms	Yes	Yes					
Parallel Model Processing	Yes	Yes					
Time Series: Cross-Series Prediction	Yes	Yes					
Unlimited attributes for Association Rules	Yes	Yes					
Sequence Prediction	Yes	Yes					
Multiple Prediction Targets for Naïve Bayes, Neural Network and Logistic Regression	Yes	Yes					

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## Reporting Services

Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
Supported catalog DB SQL Server edition	Standard or higher	Standard or higher	Standard or higher	Web	Express		
Supported data source SQL Server edition	All SQL Server editions	All SQL Server editions	All SQL Server editions	Web	Express		
Report Server	Yes	Yes	Yes	Yes	Yes		
Report Designer	Yes	Yes	Yes	Yes	Yes		
Report Manager	Yes	Yes	Yes	Yes	Yes		
Role based security	Yes	Yes	Yes	Yes	Yes		
Word Export and Rich Text Support	Yes	Yes	Yes	Yes	Yes		
Enhanced gauges and charting	Yes	Yes	Yes	Yes	Yes		
Export to Excel, PDF, and Images	Yes	Yes	Yes	Yes	Yes		
Custom authentication	Yes	Yes	Yes	Yes	Yes		
Report as data feeds	Yes	Yes	Yes	Yes	Yes		
Model support	Yes	Yes	Yes	Yes			
Create custom roles for role-based security	Yes	Yes	Yes				
Model Item security	Yes	Yes	Yes				
Infinite click through	Yes	Yes	Yes				
Shared component library	Yes	Yes	Yes				
Email and file share	Yes	Yes	Yes				

subscriptions and scheduling							
Report history, execution snapshots and caching	Yes	Yes	Yes				
SharePoint Integration	Yes	Yes	Yes				
Remote and non-SQL data source support <sup>1</sup>	Yes	Yes	Yes				
Data source, delivery and rendering, RDCE extensibility	Yes	Yes	Yes				
Data driven report subscription	Yes	Yes					
Scale out deployment (Web farms)	Yes	Yes					
Alerting <sup>2</sup>	Yes	Yes					
Power View <sup>2</sup>	Yes	Yes					

<sup>1</sup>For more information on the supported data sources in SQL Server 2012 Reporting Services (SSRS) Release Candidate 0 (RC 0), see [Data Sources Supported by Reporting Services \(SSRS\)](#).

<sup>2</sup>Requires Reporting Services in SharePoint mode. For more information, see [Installing Reporting Services SharePoint Mode Report Server for Power View and Data Alerting](#).

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## Business Intelligence Clients

The following software client applications are available on the Microsoft Downloads center and are provided to assist you with creating business intelligence documents that run on a SQL Server instance. When you host these documents in a server environment, use an edition of SQL Server that is supported for that document type. The following table identifies which SQL Server edition contains the server features required to host the documents created in these client applications.

Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
Report Builder	Yes	Yes	Yes				
Data Mining Addins for Excel and Visio 2010	Yes	Yes	Yes				
PowerPivot for Excel 2010	Yes	Yes					
Master Data Services Add-in for Excel	Yes	Yes					

Note: PowerPivot for Excel is an Excel addin and does not depend on SQL Server. However PowerPivot for SharePoint is required for sharing and collaborating with PowerPivot workbooks in SharePoint and this capability is available as part of SQL Server Enterprise and Business Intelligence editions.

The above table identifies the SQL Server editions that are required to enable the client tools only; however the features do not depend on SQL Server edition for accessing data

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## Spatial and Location Services

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Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
Spatial indexes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Planar and Geodetic datatypes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Advanced spatial libraries	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Import/export of industry-standard spatial data formats	Yes	Yes	Yes	Yes	Yes	Yes	Yes

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## Additional Database Services

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Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
SQL Server Migration Assistant	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Database mail <sup>1</sup>	Yes	Yes	Yes	Yes			

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## Other Components

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Feature Name	Enterprise	Business Intelligence	Standard	Web	Express with Advanced Services	Express with Tools	Express
Data Quality Services	Yes	Yes					
Stream Insight	Yes (Enterprise)	Yes (Standard)	Yes (Standard)	Yes (Standard)			
Stream Insight HA	Yes						

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