**[Breaking Features in SQL Server 2012](javascript:void(0)" \o "Collapse)**

|  |  |  |  |
| --- | --- | --- | --- |
| Category | Deprecated feature | Replacement | Feature name |
| Backup and restore | BACKUP { DATABASE | LOG } WITH PASSWORD | None | BACKUP DATABASE or LOG WITH PASSWORD |
| Backup and restore | BACKUP { DATABASE | LOG } WITH MEDIAPASSWORD | None | BACKUP DATABASE or LOG WITH MEDIAPASSWORD |
| Backup and Restore | RESTORE { DATABASE | LOG } … WITH DBO\_ONLY | RESTORE { DATABASE | LOG } … … WITH RESTRICTED\_USER | RESTORE DATABASE or LOG WITH DBO\_ONLY |
| Backup and restore | RESTORE { DATABASE | LOG } WITH PASSWORD | None | RESTORE DATABASE or LOG WITH PASSWORD |
| Backup and restore | RESTORE { DATABASE | LOG } WITH MEDIAPASSWORD | None | RESTORE DATABASE or LOG WITH MEDIAPASSWORD |
| Compatibility levels | 80 compatibility level and upgrade from version 80. | Compatibility levels are only available for the last two versions. For more information about compatibility levels, see [ALTER DATABASE Compatibility Level (Transact-SQL)](http://msdn.microsoft.com/en-us/library/bb510680(v=sql.100).aspx). | Database compatibility level 80 |
| Metadata | DATABASEPROPERTY | DATABASEPROPERTYEX | DATABASEPROPERTY |
| Database objects | WITH APPEND clause on triggers | Re-create the whole trigger. | CREATE TRIGGER WITH APPEND |
| Instance options | Default setting of disallow results from triggers option = 0 | Default setting of disallow results from triggers option = 1 | sp\_configure 'disallow results from triggers' |
| Database options | sp\_dboption | ALTER DATABASE | sp\_dboption |
| Query hints | FASTFIRSTROW hint | OPTION (FAST n). | FASTFIRSTROW |
| Remote servers | sp\_addremotelogin  sp\_addserver  sp\_dropremotelogin  sp\_helpremotelogin  sp\_remoteoption | Replace remote servers by using linked servers. | sp\_addremotelogin  sp\_addserver  sp\_dropremotelogin  sp\_helpremotelogin  sp\_remoteoption |
| Remote servers | @@remserver | Replace remote servers by using linked servers. | None |
| Remote servers | SET REMOTE\_PROC\_TRANSACTIONS | Replace remote servers by using linked servers. | SET REMOTE\_PROC\_TRANSACTIONS |
| Security | sp\_dropalias | Replace aliases with a combination of user accounts and database roles. Use sp\_dropalias to remove aliases in upgraded databases. | sp\_dropalias |
| SET options | SET DISABLE\_DEF\_CNST\_CHK | None. Option has no effect. | SET DISABLE\_DEF\_CNST\_CHK |
| SET options | SET ROWCOUNT for INSERT, UPDATE, and DELETE statements | TOP keyword | SET ROWCOUNT |
| Transact-SQL syntax | Use of \*= and =\* | Use ANSI join syntax. For more information, see [FROM (Transact-SQL)](http://msdn.microsoft.com/en-us/library/ms177634(v=sql.100).aspx). | Non-ANSI \*= or =\* outer join operators |
| Transact-SQL syntax | COMPUTE / COMPUTE BY | Use ROLLUP | COMPUTE [BY] |
| System tables | sys.database\_principal\_aliases | Use roles instead of aliases. | database\_principal\_aliases |
| Tools | sqlmaint Utility | Use the SQL Server maintenance plan feature | None |
| Transact-SQL | The RAISERROR (Format: RAISERROR integer string) syntax is deprecated. | Rewrite the statement using the current RAISERROR syntax. | Oldstyle RAISEERROR |

[**Deprecated Features of SQL Server 2012**](javascript:void(0))

|  |  |  |  |
| --- | --- | --- | --- |
| Category | Deprecated feature | Replacement | Feature name |
| Compatibility levels | sp\_dbcmptlevel | ALTER DATABASE … SET COMPATIBILITY\_LEVEL. For more information, see [ALTER DATABASE Compatibility Level (Transact-SQL)](http://msdn.microsoft.com/en-us/library/bb510680(v=sql.100).aspx). | sp\_dbcmptlevel |
| Compatibility levels | Database compatibility level 90 | Plan to upgrade the database and application for a future release. | Database compatibility level 90 |
| XML | Inline XDR Schema Generation | The XMLDATA directive to the FOR XML option is deprecated. Use XSD generation in the case of RAW and AUTO modes. There is no replacement for the XMLDATA directive in EXPLICT mode. | XMLDATA |
| Backup and restore | BACKUP { DATABASE | LOG } TO TAPE  BACKUP { DATABASE | LOG } TO *device\_that\_is\_a\_tape* | BACKUP { DATABASE | LOG } TO DISK  BACKUP { DATABASE | LOG } TO *device\_that\_is\_a\_disk* | BACKUP DATABASE or LOG TO TAPE |
| Backup and restore | sp\_addumpdevice '**tape**' | sp\_addumpdevice '**disk**' | ADDING TAPE DEVICE |
| Backup and restore | sp\_helpdevice | sys.backup\_devices | sp\_helpdevice |
| Collations | Korean\_Wansung\_Unicode  Lithuanian\_Classic  SQL\_AltDiction\_CP1253\_CS\_AS | None. These collations exist in SQL Server 2005, but are not visible through fn\_helpcollations. | Korean\_Wansung\_Unicode  Lithuanian\_Classic  SQL\_AltDiction\_CP1253\_CS\_AS |
| Collations | Hindi  Macedonian | These collations exist in SQL Server 2005 and higher, but are not visible through fn\_helpcollations. Use Macedonian\_FYROM\_90 and Indic\_General\_90 instead. | Hindi  Macedonian |
| Collations | Azeri\_Latin\_90  Azeri\_Cyrilllic\_90 | Azeri\_Latin\_100  Azeri\_Cyrilllic\_100 | Azeri\_Latin\_90  Azeri\_Cyrilllic\_90 |
| Configuration | SET ANSI\_NULLS OFF and ANSI\_NULLS OFF database option  SET ANSI\_PADDING OFF and ANSI\_PADDING OFF database option  SET CONCAT\_NULL\_YIELDS\_NULL OFF and CONCAT\_NULL\_YIELDS\_NULL OFF database option  SET OFFSETS | None.  ANSI\_NULLS, ANSI\_PADDING and CONCAT\_NULLS\_YIELDS\_NULL will always be set to ON. SET OFFSETS will be unavailable. | SET ANSI\_NULLS OFF  SET ANSI\_PADDING OFF  SET CONCAT\_NULL\_YIELDS\_NULL OFF  SET OFFSETS  ALTER DATABASE SET ANSI\_NULLS OFF  ALTER DATABASE SET ANSI\_PADDING OFF  ALTER DATABASE SET CONCAT\_NULL\_YIELDS\_NULL OFF |
| Data types | sp\_addtype  sp\_droptype | CREATE TYPE  DROP TYPE | sp\_addtype  sp\_droptype |
| Data types | **timestamp** syntax for **rowversion** data type | **rowversion** data type syntax | TIMESTAMP |
| Data types | Ability to insert null values into **timestamp** columns. | Use a DEFAULT instead. | INSERT NULL into TIMESTAMP columns |
| Data types | 'text in row' table option | Use **varchar(max)**, **nvarchar(max)**, and **varbinary(max)** data types. For more information, see [sp\_tableoption (Transact-SQL)](http://msdn.microsoft.com/en-us/library/ms173530(v=sql.100).aspx). | Text in row table option |
| Data types | Data types:   * **text** * **ntext** * **image** | Use **varchar(max)**, **nvarchar(max)**, and **varbinary(max)** data types. | Data types: **text** **ntext** or **image** |
| Database management | sp\_attach\_db  sp\_attach\_single\_file\_db | CREATE DATABASE statement with the FOR ATTACH option. To rebuild multiple log files, when one or more have a new location, use the FOR ATTACH\_REBUILD\_LOG option. | sp\_attach\_db  sp\_attach\_single\_file\_db |
| Database objects | CREATE DEFAULT  DROP DEFAULT  sp\_bindefault  sp\_unbindefault | DEFAULT keyword in CREATE TABLE and ALTER TABLE | CREATE\_DROP\_DEFAULT  sp\_bindefault  sp\_unbindefault |
| Database objects | CREATE RULE  DROP RULE  sp\_bindrule  sp\_unbindrule | CHECK keyword in CREATE TABLE and ALTER TABLE | CREATE\_DROP\_RULE  sp\_bindrule  sp\_unbindrule |
| Database objects | sp\_change\_users\_login | Use ALTER USER. | sp\_change\_users\_login |
| Database objects | sp\_depends | sys.dm\_sql\_referencing\_entities and sys.dm\_sql\_referenced\_entities | sp\_depends |
| Database objects | sp\_renamedb | MODIFY NAME in ALTER DATABASE | sp\_renamedb |
| Database objects | sp\_getbindtoken | Use MARS or distributed transactions. | sp\_getbindtoken |
| Database options | sp\_bindsession | Use MARS or distributed transactions. | sp\_bindsession |
| Database options | sp\_resetstatus | ALTER DATABASE SET { ONLINE | EMERGENCY } | sp\_resetstatus |
| Database options | TORN\_PAGE\_DETECTION option of ALTER DATABASE | PAGE\_VERIFY TORN\_PAGE\_DETECTION option of ALTER DATABASE | ALTER DATABASE WITH TORN\_PAGE\_DETECTION |
| DBCC | DBCC DBREINDEX | REBUILD option of ALTER INDEX. | DBCC DBREINDEX |
| DBCC | DBCC INDEXDEFRAG | REORGANIZE option of ALTER INDEX | DBCC INDEXDEFRAG |
| DBCC | DBCC SHOWCONTIG | sys.dm\_db\_index\_physical\_stats | DBCC SHOWCONTIG |
| DBCC | DBCC PINTABLE  DBCC UNPINTABLE | Has no effect. | DBCC [UN]PINTABLE |
| Extended properties | Level0type = 'type' and Level0type = 'USER' to add extended properties to level-1 or level-2 type objects. | Use Level0type = 'USER' only to add an extended property directly to a user or role.  Use Level0type = 'SCHEMA' to add an extended property to level-1 types such as TABLE or VIEW, or level-2 types such as COLUMN or TRIGGER. For more information, see [sp\_addextendedproperty (Transact-SQL)](http://msdn.microsoft.com/en-us/library/ms180047(v=sql.100).aspx). | EXTPROP\_LEVEL0TYPE  EXTPROP\_LEVEL0USER |
| Extended stored procedure programming | srv\_alloc  srv\_convert  srv\_describe  srv\_getbindtoken  srv\_got\_attention  srv\_message\_handler  srv\_paramdata  srv\_paraminfo  srv\_paramlen  srv\_parammaxlen  srv\_paramname  srv\_paramnumber  srv\_paramset  srv\_paramsetoutput  srv\_paramstatus  srv\_paramtype  srv\_pfield  srv\_pfieldex  srv\_rpcdb  srv\_rpcname  srv\_rpcnumber  srv\_rpcoptions  srv\_rpcowner  srv\_rpcparams  srv\_senddone  srv\_sendmsg  srv\_sendrow  srv\_setcoldata  srv\_setcollen  srv\_setutype  srv\_willconvert  srv\_wsendmsg | Use CLR Integration instead. | XP\_API |
| Extended stored procedure programming | sp\_addextendedproc  sp\_dropextendedproc  sp\_helpextendedproc | Use CLR Integration instead. | sp\_addextendedproc  sp\_dropextendedproc  sp\_helpextendedproc |
| Extended stored procedures | xp\_grantlogin  xp\_revokelogin  xp\_loginConfig | Use CREATE LOGIN  Use DROP LOGIN IsIntegratedSecurityOnly argument of SERVERPROPERTY | xp\_grantlogin  xp\_revokelogin  xp\_loginconfig |
| Functions | fn\_get\_sql | sys.dm\_exec\_sql\_text | fn\_get\_sql |
| Index options | sp\_indexoption | ALTER INDEX | sp\_indexoption |
| Index options | CREATE TABLE, ALTER TABLE, or CREATE INDEX syntax without parentheses around the options. | Rewrite the statement to use the current syntax. | INDEX\_OPTION |
| Database objects | Ability to return result sets from triggers | None | Returning results from trigger |
| Instance options | sp\_configure option 'allow updates' | System tables are no longer updatable. Setting has no effect. | sp\_configure 'allow updates' |
| Instance options | sp\_configure options:   * 'locks' * 'open objects' * 'set working set size' | Now automatically configured. Setting has no effect. | sp\_configure 'locks'  sp\_configure 'open objects'  sp\_configure 'set working set size' |
| Instance options | sp\_configure options 'user instances enabled' and 'user instance timeout' | No longer needed as SQL Server Compact 3.5 SP1 provides the necessary functionality. Setting has no effect. | None |
| Instance options | sp\_configure option 'priority boost' | System tables are no longer updatable. Setting has no effect. | sp\_configure 'priority boost' |
| Instance options | sp\_configure option 'remote proc trans' | System tables are no longer updatable. Setting has no effect. | sp\_configure 'remote proc trans' |
| Linked servers | Specifying the SQLOLEDB provider for linked servers. | SQL Server Native Client (SQLNCLI) | SQLOLEDDB for linked servers |
| Locking | sp\_lock | sys.dm\_tran\_locks | sp\_lock |
| Mail | SQL Mail | Database Mail | SQLMail |
| Metadata | FILE\_ID  INDEXKEY\_PROPERTY | FILE\_IDEX  sys.index\_columns | FILE\_ID  INDEXKEY\_PROPERTY |
| Native XML Web Services | The CREATE ENDPOINT or ALTER ENDPOINT statement with the FOR SOAP option.  sys.endpoint\_webmethods  sys.soap\_endpoints | Use Windows Communications Foundation (WCF) or ASP.NET instead. | CREATE/ALTER ENDPOINT  sys.endpoint\_webmethods  sys.soap\_endpoints |
| Programmability | SQL Server Database Management Objects (SQL-DMO) | [SQL Server Management Objects (SMO)](http://msdn.microsoft.com/en-us/library/ms162169(v=sql.100).aspx) | SQL Server Database Management Objects (SQL-DMO) has been removed from SQL Server 2008 Express and will be removed from other editions.  We recommend that you modify applications that currently use this feature as soon as possible. If you must support SQL-DMO for SQL Server Express, install the Backward Compatibility Components from the SQL Server 2005 feature pack from the Microsoft Download Center. Do not use SQL-DMO in new development work; use SQL Server Management Objects (SMO) instead. You can obtain the SMO documentation by installing SQL Server 2005 Books Online. |
| Removable databases | sp\_certify\_removable  sp\_create\_removable | sp\_detach\_db | sp\_certify\_removable  sp\_create\_removable |
| Removable databases | sp\_dbremove | DROP DATABASE | sp\_dbremove |
| Security | The ALTER LOGIN WITH SET CREDENTIAL syntax | Replaced by the new ALTER LOGIN ADD and DROP CREDENTIAL syntax | ALTER LOGIN WITH SET CREDENTIAL |
| Security | sp\_addapprole  sp\_dropapprole | CREATE APPLICATION ROLE  DROP APPLICATION ROLE | sp\_addapprole  sp\_dropapprole |
| Security | sp\_addlogin  sp\_droplogin | CREATE LOGIN  DROP LOGIN | sp\_addlogin  sp\_droplogin |
| Security | sp\_adduser  sp\_dropuser | CREATE USER  DROP USER | sp\_adduser  sp\_dropuser |
| Security | sp\_grantdbaccess  sp\_revokedbaccess | CREATE USER  DROP USER | sp\_grantdbaccess  sp\_revokedbaccess |
| Security | sp\_addrole  sp\_droprole | CREATE ROLE  DROP ROLE | sp\_addrole  sp\_droprole |
| Security | sp\_approlepassword  sp\_password | ALTER APPLICATION ROLE  ALTER LOGIN | sp\_approlepassword  sp\_password |
| Security | sp\_changeobjectowner | ALTER SCHEMA or ALTER AUTHORIZATION | sp\_changeobjectowner |
| Security | sp\_defaultdb  sp\_defaultlanguage | ALTER LOGIN | sp\_defaultdb  sp\_defaultlanguage |
| Security | sp\_denylogin  sp\_grantlogin  sp\_revokelogin | ALTER LOGIN DISABLE  CREATE LOGIN  DROP LOGIN | sp\_denylogin  sp\_grantlogin  sp\_revokelogin |
| Security | USER\_ID | DATABASE\_PRINCIPAL\_ID | USER\_ID |
| Security | sp\_srvrolepermission  sp\_dbfixedrolepermission | These stored procedures return information that was correct in SQL Server 2000. The output does not reflect changes to the permissions hierarchy implemented in SQL Server 2008. For more information, see [Permissions of Fixed Server Roles (Database Engine)](http://msdn.microsoft.com/en-us/library/ms175892(v=sql.100).aspx). | sp\_srvrolepermission  sp\_dbfixedrolepermission |
| Security | GRANT ALL  DENY ALL  REVOKE ALL | GRANT, DENY, and REVOKE specific permissions. | ALL Permission |
| Security | PERMISSIONS intrinsic function | Query sys.fn\_my\_permissions instead. | PERMISSIONS |
| Security | SETUSER | EXECUTE AS | SETUSER |
| Security | RC4 and DESX encryption algorithms | Use another algorithm such as AES. | DESX algorithm |
| SMO classes | **Microsoft.SQLServer.Management.Smo.Information** class  **Microsoft.SQLServer.Management.Smo.Settings** class  **Microsoft.SQLServer.Management.Smo.DatabaseOptions** class  **Microsoft.SqlServer.Management.Smo.DatabaseDdlTrigger.NotForReplication** property | **Microsoft.SqlServer.Management.Smo.Server** class  **Microsoft.SqlServer.Management.Smo.Server** class  **Microsoft.SqlServer.Management.Smo.Database** class  None | None |
| SQL Server Agent | **net send** notification  Pager notification  ActiveX subsystem | E-mail notification  E-mail notification  Command or PowerShell scripts | None |
| SQL Server Management Studio | Solution Explorer integration in SQL Server Management Studio  Source Control integration in SQL Server Management Studio |  | None |
| System tables | sysaltfiles  syscacheobjects  syscolumns  syscomments  sysconfigures  sysconstraints  syscurconfigs  sysdatabases  sysdepends  sysdevices  sysfilegroups  sysfiles  sysforeignkeys  sysfulltextcatalogs  sysindexes  sysindexkeys  syslockinfo  syslogins  sysmembers  sysmessages  sysobjects  sysoledbusers  sysopentapes  sysperfinfo  syspermissions  sysprocesses  sysprotects  sysreferences  sysremotelogins  sysservers  systypes  sysusers | Compatibility views. For more information, see [Compatibility Views (Transact-SQL)](http://msdn.microsoft.com/en-us/library/ms187376(v=sql.100).aspx).  Important note**Important**  The compatibility views do not expose metadata for features that were introduced in SQL Server 2005. We recommend that you upgrade your applications to use catalog views. For more information, see [Catalog Views (Transact-SQL)](http://msdn.microsoft.com/en-us/library/ms174365(v=sql.100).aspx). | sysaltfiles  syscacheobjects  syscolumns  syscomments  sysconfigures  sysconstraints  syscurconfigs  sysdatabases  sysdepends  sysdevices  sysfilegroups  sysfiles  sysforeignkeys  sysfulltextcatalogs  sysindexes  sysindexkeys  syslockinfo  syslogins  sysmembers  sysmessages  sysobjects  sysoledbusers  sysopentapes  sysperfinfo  syspermissions  sysprocesses  sysprotects  sysreferences  sysremotelogins  sysservers  systypes  sysusers |
| System tables | sys.numbered\_procedures  sys.numbered\_procedure\_parameters | None | numbered\_procedures  numbered\_procedure\_parameters |
| System functions | fn\_virtualservernodes  fn\_servershareddrives | sys.dm\_os\_cluster\_nodes  sys.dm\_io\_cluster\_shared\_drives | fn\_virtualservernodes  fn\_servershareddrives |
| System views | sys.sql\_dependencies | sys.sql\_expression\_dependencies | sys.sql\_dependencies |
| Table compression | The use of the vardecimal storage format. | Vardecimal storage format is deprecated. SQL Server 2008 data compression compresses decimal values as well as other data types. We recommend that you use data compression instead of the vardecimal storage format. | Vardecimal storage format |
| Table compression | Use of the sp\_db\_vardecimal\_storage\_format procedure. | Vardecimal storage format is deprecated. SQL Server 2008 data compression compresses decimal values as well as other data types. We recommend that you use data compression instead of the vardecimal storage format. | sp\_db\_vardecimal\_storage\_format |
| Table compression | Use of the sp\_estimated\_rowsize\_reduction\_for\_vardecimal procedure. | Use data compression and the sp\_estimate\_data\_compression\_savings procedure instead. | sp\_estimated\_rowsize\_reduction\_for\_vardecimal |
| Table hints | Specifying NOLOCK or READUNCOMMITTED in the FROM clause of an UPDATE or DELETE statement. | Remove the NOLOCK or READUNCOMMITTED table hints from the FROM clause. | NOLOCK or READUNCOMMITTED in UPDATE or DELETE |
| Table hints | Specifying table hints without using the WITH keyword. | Use WITH. | Table hint without WITH |
| Table hints |  |  | HOLDLOCK table hint without parenthesis |
| Table hints |  |  | INSERT\_HINTS |
| Textpointers | WRITETEXT  UPDATETEXT  READTEXT | None | UPDATETEXT or WRITETEXT  READTEXT |
| Textpointers | TEXTPTR()  TEXTVALID() | None | TEXTPTR  TEXTVALID |
| Transact-SQL | :: function-calling sequence | Replaced by SELECT *column\_list* FROM sys.<*function\_name*>().  For example, replace SELECT \* FROM ::fn\_virtualfilestats(2,1)with SELECT \* FROM sys.fn\_virtualfilestats(2,1). | '::' function calling syntax |
| Transact-SQL | Three-part and four-part column references. | Two-part names is the standard-compliant behavior. | More than two-part column name |
| Transact-SQL | A string enclosed in quotation marks used as a column alias for an expression in a SELECT list:  '*string\_alias*' = *expression* | *expression* [AS] *column\_alias*  *expression* [AS] [*column\_alias*]  *expression* [AS] "*column\_alias*"  *expression* [AS] '*column\_alias*'  *column\_alias* = *expression* | String literals as column aliases |
| Transact-SQL | Numbered procedures | None. Do not use. | ProcNums |
| Transact-SQL | *table\_name.index\_name* syntax in DROP INDEX | *index\_name* ON *table\_name* syntax in DROP INDEX. | DROP INDEX with two-part name |
| Transact-SQL | Not using a statement terminator for Transact-SQL statements. | End Transact-SQL statements with a statement terminator, which is a semicolon ( ; ). | None |
| Transact-SQL | GROUP BY ALL | Use custom case-by-case solution with UNION or derived table. | GROUP BY ALL |
| Transact-SQL | ROWGUIDCOL as a column name in DML statements. | Use $rowguid. | ROWGUIDCOL |
| Transact-SQL | IDENTITYCOL as a column name in DML statements. | Use $identity. | IDENTITYCOL |
| Transact-SQL | Use of #, ## as temporary table and temporary stored procedure names. | Use at least one additional character. | '#' and '##' as the name of temporary tables and stored procedures |
| Transact-SQL | Use of @, @@, or @@ as Transact-SQL identifiers. | Do not use @ or @@ or names that begin with @@ as identifiers. | '@' and names that start with '@@' as Transact-SQL identifiers |
| Transact-SQL | Use of DEFAULT keyword as default value. | Do not use the word DEFAULT as a default value. | DEFAULT keyword as a default value |
| Transact-SQL | Use of a space as a separator between table hints. | Use a comma to separate table hints. | Multiple table hints without comma |
| Transact-SQL | The select list of an aggregate indexed view must contain COUNT\_BIG (\*) in 90 compatibility mode | Use COUNT\_BIG (\*). | Index view select list without COUNT\_BIG(\*) |
| Transact-SQL | The indirect application of table hints to an invocation of a multi-statement table-valued function (TVF) through a view. | None. | Indirect TVF hints |
| Transact-SQL | ALTER DATABASE syntax:  MODIFY FILEGROUP READONLY  MODIFY FILEGROUP READWRITE | MODIFY FILEGROUP READ\_ONLY  MODIFY FILEGROUP READ\_WRITE | MODIFY FILEGROUP READONLY  MODIFY FILEGROUP READWRITE |
| Other | DB-Library  Embedded SQL for C | Although the Database Engine still supports connections from existing applications that use the DB-Library and Embedded SQL APIs, it does not include the files or documentation required to do programming work on applications that use these APIs. A future version of the SQL Server Database Engine will drop support for connections from DB-Library or Embedded SQL applications. Do not use DB-Library or Embedded SQL to develop new applications. Remove any dependencies on either DB-Library or Embedded SQL when you are modifying existing applications. Instead of these APIs, use the **SQLClient** namespace or an API such as OLE DB or ODBC. SQL Server 2008 does not include the DB-Library DLL required to run these applications. To run DB-Library or Embedded SQL applications, you must have available the DB-Library DLL from SQL Server version 6.5, SQL Server 7.0, or SQL Server 2000. | None |

**Breaking Features in SQL Server 2008**

* [SQL Server 2008 R2](http://msdn.microsoft.com/en-us/library/ms144262(v=sql.105).aspx)
* [SQL Server 2005](http://msdn.microsoft.com/en-us/library/ms144262(v=sql.90).aspx)
* [SQL Server 2012](http://msdn.microsoft.com/en-us/library/ms144262(v=sql.110).aspx)

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| Category | Discontinued feature | Replacement |
| Aliases | sp\_addalias | Replace aliases with a combination of user accounts and database roles. For more information, see [CREATE USER (Transact-SQL)](http://msdn.microsoft.com/en-us/library/ms173463(v=sql.100).aspx) and [CREATE ROLE (Transact-SQL)](http://msdn.microsoft.com/en-us/library/ms187936(v=sql.100).aspx). Remove aliases in upgraded databases by using [sp\_dropalias](http://msdn.microsoft.com/en-us/library/ms177513(v=sql.100).aspx). |
| APIs | Registered Servers API | Replaced by a new registered servers API that supports new SQL Server 2008 features. |
| Backup and restore | DUMP statement | BACKUP |
| Backup and restore | LOAD statement | RESTORE |
| Backup and restore | BACKUP LOG WITH NO\_LOG | None. The transaction log is automatically truncated when the database is using the simple recovery model. If you must remove the log backup chain from a database, switch to the simple recovery model. |
| Backup and restore | BACKUP LOG WITH TRUNCATE\_ONLY | None. The transaction log is automatically truncated when the database is using the simple recovery model. If you must remove the log backup chain from a database, switch to the simple recovery model. |
| Backup and restore | BACKUP TRANSACTION | BACKUP LOG |
| Compatibility level | 60, 65, and 70 compatibility levels | Databases must be set to at least compatibility level 80. |
| DBCC | DBCC CONCURRENCYVIOLATION | None |
| Groups | sp\_addgroup | Use roles. |
| Groups | sp\_changegroup | Use roles. |
| Groups | sp\_dropgroup | Use roles. |
| Groups | sp\_helpgroup | Use roles. |
| Sample databases | Northwind and pubs | Use AdventureWorks. Northwind and pubs are available as downloads, or can be copied from a previous installation of SQL Server.  For more information, see [AdventureWorks Sample Databases](http://msdn.microsoft.com/en-us/library/ms124501(v=sql.100).aspx). |
| Tools | Surface Area Configuration Tool | The Surface Area Configuration Tool is discontinued for SQL Server 2008. For more information, see [Backward Compatibility](http://msdn.microsoft.com/en-us/library/cc280407(v=sql.100).aspx). |
| Web Assistant | sp\_makewebtask  sp\_dropwebtask  sp\_runwebtask  sp\_enumcodepages | We recommend that you use SQL Server Reporting Services instead. |