Quest® Change Auditor for SQL Server® 7.4

Event Reference Guide

Contents

Introduction

Change Auditor for SQL Server provides database auditing to secure SQL database assets with extensive, customizable auditing and reporting for critical SQL changes including broker, database, object, performance, transaction events, errors and warnings, and data changes. SQL auditing helps tighten enterprise-wide change and control policies by tracking user and administrator activity such as database additions and deletions, granting and removing SQL access, and so on.

To enable SQL Server auditing in Change Auditor, you must assign a SQL Auditing template to Change Auditor agents. Change Auditor for SQL Server ships with a predefined SQL Auditing template that you can use to audit key events on the default SQL Server instance or you can create a SQL auditing template to specify the SQL instances and SQL Server operations to audit.

In addition to real-time auditing, you can also enable event logging to capture SQL Server events locally in a Windows event log. This event log can then be collected using InTrust to satisfy long-term storage requirements.

> **i** | **NOTE:** SQL Server auditing and event logging are only available when you have licensed Change Auditor for SQL Server and assigned a SQL Auditing template to your agents. Contact your Sales Representative for more information about obtaining Change Auditor for SQL Server.

This guide lists the events that are captured by Change Auditor for SQL Server. Separate event reference guides are available that list the core Change Auditor events (when any Change Auditor license is applied) and the events captured when the different auditing modules are licensed.

Change Auditor for SQL Server Events

This section lists the audited events specific to Change Auditor for SQL Server. It also lists each event's corresponding severity setting. Audited events are listed in alphabetical order by facility:

- SQL Broker Event
- SQL CLR Event
- SQL Cursors Event
- SQL Database Event
- SQL Deprecation Event
- SQL Errors and Warnings Event
- SQL Full Text Event
- SQL Locks Event
- SQL Objects Event
- SQL OLEDB Event
- SQL Performance Event
- SQL Progress Report Event
- SQL Query Notifications Event
- SQL Scan Event
- SQL Security Audit Event
- SQL Server Event
- SQL Session Event
- SQL Stored Procedures Event
- SQL Transactions Event
- SQL TSQL Event
- SQL User-Configurable Event
- SQL Data Level Event
- SQL Extended Events

i | **IMPORTANT:** When expecting large numbers of events, it may be necessary to increase the Max Events per Connection setting in the client (Agent Configuration on the Administration Tasks tab) to avoid an ever-increasing backlog of events waiting to be sent from the agent to the coordinator database.

i | **NOTE:** To view a complete list of all the events, open the Audit Events page on the Administration Tasks tab in the client. This page displays the facility to which the event belongs, the severity assigned to each event, if the event is enabled or disabled, and the type of license that is required to capture each event.

SQL Broker Event

The SQL Broker Event facility includes event classes that are produced by the Service Broker.

Table 1. SQL Broker events

Event	Description	Severity
Broker: Activation - Aborted	Created when a SQL Server activation stored procedure is aborted.	Medium
Broker: Activation – Ended	Created when a SQL Server activation stored procedure is ended.	Medium
Broker: Activation - Start	Created when SQL Server activation stored procedure is started.	Medium
Broker: Connection – Accept	Created when SQL Server has accepted a transport connection from another instance.	Medium
Broker: Connection – Closed	Created when a SQL Server has closed the transport connection.	Medium
Broker: Connection - Closing	Created when a SQL Server is closing the transport connection.	Medium
Broker: Connection – Connect Failed	Created when a SQL Server fails to establish a transport connection.	Medium
Broker: Connection – Connected	Created when a SQL Server has established a transport connection.	Medium
Broker: Connection - Connecting	Created when a SQL Server is initiating a transport connection.	Medium
Broker: Connection – Receive IO Error	Created when a SQL Server encounters a transport error while receiving a message.	Medium
Broker: Connection – Send IO Error	Created when a SQL Server encounters a transport error while sending a message.	Medium
Broker: Conversation – Begin Dialog	Created when the Database Engine executes a Begin Dialog command.	Medium
Broker: Conversation – Broker Initiated Error	Created when the Service Broker creates an error message.	Medium
Broker: Conversation – Dialog Created	Created when the Service Broker creates an endpoint for a dialog.	Medium
Broker: Conversation – End Conversation	Created when the Database Engine executes an END CONVERSATION statement that does not include the WITH ERROR clause.	Medium
Broker: Conversation – End Conversation with Cleanup	Created when the Database Engine executes an END CONVERSATION statement that includes the WITH CLEANUP CLAUSE.	Medium
Broker: Conversation – End Conversation with Error	Created when the Database Engine executes an END CONVERSATION statement that includes the WITH ERROR clause.	Medium
Broker: Conversation – Received Broker Error Message	Created when the Service Broker receives a broker-defined error message from the other side of the conversation.	Medium
Broker: Conversation – Received End Conversation	Created when SQL Server receives an End Dialog message from the other side of the conversation.	Medium

Table 1. SQL Broker events

Event	Description	Severity
Broker: Conversation – Received End Conversation Ack	Created when the other side of a conversation acknowledged an End Dialog or Error message sent by this side of the conversation.	Medium
Broker: Conversation – Received End Conversation with Error	Created when SQL Server receives a user-defined error from the other side of the conversation.	Medium
Broker: Conversation – Received Sequenced Message	Created when SQL Server receives a message that contains a message sequence number.	Medium
Broker: Conversation – Send Message	Created when the Database Engine executes a SEND statement.	Medium
Broker: Conversation – Terminate Dialog	Created when the Service Broker terminates the dialog.	Medium
Broker: Conversation Group – Create	Created when SQL Server creates a new conversation group.	Medium
Broker: Conversation Group – Drop	Created when SQL Server deletes a conversation group.	Medium
Broker: Corrupted Message	Created when the Service Broker receives a corrupted message.	Medium
Broker: Forwarded Message Dropped	Created when the Service Broker drops a message that was intended to be forwarded.	Medium
Broker: Forwarded Message Sent	Created when the Service Broker forwards a message.	Medium
Broker: Message Classify – Delayed	Created when the Service Broker delayed the routing for a message. (Disabled by default)	Medium
Broker: Message Classify - Local	Created when the Service Broker determines the routing for a local message.	Medium
Broker: Message Classify – Remote	Created when the Service Broker determines the routing for a remote message.	Medium
Broker: Mirrored Route State Changed	Created when the mirrored route state changes on the Service Broker.	Medium
Broker: Queue Disabled	Created when a poison message is detected because there are five consecutive transaction rollbacks on a Service Broker queue.	Medium
Broker: Remote Message Ack – Acknowledgment Received	Created when the Service Broker receives an acknowledgment outside of a normal sequenced message	Medium
Broker: Remote Message Ack - Acknowledgment Sent	Created when the Service Broker sends an acknowledgment outside of a normal sequenced message.	Medium
Broker: Remote Message Ack – Message with Acknowledgment Received	Created when the Service Broker receives an acknowledgment as part of a normal sequenced message.	Medium
Broker: Remote Message Ack – Message with Acknowledgment Sent	Created when the Service Broker sends an acknowledgment as part of a normal sequenced message.	Medium
Broker: Sequenced Message Undeliverable	Created when the Service Broker is unable to retain a received sequenced message that should have been delivered to a service.	Medium
Broker: Transmission	Created when an error has occurred in the Service Broker transport layer.	Medium
Broker: Unsequenced Message Undeliverable	Create when the Service Broker is unable to retain a received unsequenced message that should have been delivered to a service.	Medium

SQL CLR Event

The SQL CLR Event facility includes event classes that are produced by the execution of .NET Common Language Runtime (CLR) objects inside SQL Server.

Table 2. SQL CLR event

Event	Description	Severity
Assembly Load	Created when a request to load the assembly results in an error.	Medium

SQL Cursors Event

The SQL Cursor Event facility contains event classes that are used to monitor the behavior of cursors.

Table 3. SQL Cursors events

Event	Description	Severity
Cursor - Close	Created when a Transact-SQL cursor statement by ODBC, OLE DB, or DB-Library is closed.	Medium
Cursor - Execute	Created when the Database Engine creates and populates a cursor from the execution plan created by a cursor prepare event.	Medium
Cursor - Implicit Conversion	Created when the Database Engine executes a Transact-SQL statement that is not supported by server cursors of the type requested.	Medium
Cursor - Open	Created when the Database Engine defines the SQL statement to be associated with the cursor and the cursor options, and then populates the cursor.	Medium
Cursor - Prepare	Created when the Database Engine compiles a SELECT statement associated with a cursor into an execution plan but does not create the cursor.	Medium
Cursor - Recompile	Created when the Database Engine recompiles a Transact-SQL cursor due to a schema change.	Medium
Cursor - Unprepare	Created when the Database Engine discards an execution plan.	Medium

SQL Database Event

The SQL Database Event facility contains event classes that are used to monitor the Microsoft® SQL Server Database Engine.

Table 4. SQL Database events

Event	Description	Severity
Data File Auto Grow	Created when the data file grows automatically.	Medium
Data File Auto Shrink	Created when the data file shrinks automatically.	Medium
Database Mirroring Connection	Created when the principal database makes a connection to the mirrored database.	Medium
Database Mirroring State Change	Created when the state of the mirrored database changes.	Medium

Table 4. SQL Database events

Event	Description	Severity
Log File Auto Grow	Created when the log file grows automatically.	Medium
Log File Auto Shrink	Created when the log file shrinks automatically.	Medium

SQL Deprecation Event

The SQL Deprecation Event facility contains general deprecation events.

Table 5. SQL Deprecation events

Event	Description	Severity
Deprecation Announcement	Created when a feature is used which will be removed from a future version of SQL Server.	Medium
Deprecation Final Support	Created when a feature is used which will be removed from the next major release of SQL Server.	Medium

SQL Errors and Warnings Event

The SQL Errors and Warnings Event facility contains general error and warning events.

Table 6. SQL Errors and Warnings events

Event	Description	Severity
Attention Event	Created when an attention event, such as cancel, client-interrupt requests or broken client connections, occurs.	Medium
Background Job Error – Failure With Error	Created when a background job gave up after failure with an error.	Medium
Background Job Error – Queue is Full	Created when a background job is dropped because the queue is full.	Medium
Background Job Error – Returned Error	Created when a background job is dropped because it returned an error.	Medium
Bitmap Warning	Created when a bitmap filter was disabled in a query.	Medium
Blocked Process Report	Created when a task has been blocked for more than a specified amount of time. (Disabled by default)	Medium
CPU Threshold Exceeded	Created when the Resource Governor detected a query that exceeded the CPU threshold specified for REQUEST_MAX_CPU_TIME_SEC.	Medium
Database Suspect Data Page	Created when a page was added to the suspect_pages table in msdb.	Medium
Error Logged	Created when a message with error has been logged in the SQL Server error log. (Disabled by default.)	Medium
Event Logged	Created when an event with error has been logged in the Microsoft Windows® event log. (Disabled by default.)	Medium
Exception	Created when an exception with error has occurred in SQL Server. (Disabled by default)	Medium

Table 6. SQL Errors and Warnings events

Event	Description	Severity
Exchange Spill – Begin	Created when communication buffers in a parallel query plan have started to write to the tempdb database.	Medium
Exchange Spill – End	Created when communication buffers in a parallel query plan have ended writing to the tempdb database.	Medium
Execution Warnings – Query Timeout	Created when a query wait warning occurred during the execution of a SQL Server statement or stored procedure. (Disabled by default)	Medium
Execution Warnings – Query Wait	Created when a query timeout warning occurred during the execution of a SQL Server statement or stored procedure. (Disabled by default)	Medium
Hash Warning – Bailout	Created when hash bailout has occurred during a hashing operation.	Medium
Hash Warning – Recursion	Created when hash recursion has occurred during a hashing operation.	Medium
Missing Column Statistics	Created when column statistics that could have been useful for the optimizer are not available.	Medium
Missing Join Predicate	Created when a query was being executed that has no join predicate.	Medium
Sort Warnings – Multiple Pass	Created when multiple passes over the data were required to complete a sort operation.	Medium
Sort Warnings – Single Pass	Created when one additional pass over the data was required to complete a sort operation.	Medium
User Error Message	Created when a user error message is displayed with error. (Disabled by default)	Medium

SQL Full Text Event

The SQL Full Text Event facility contains general full-text events.

Table 7. SQL Full Text events

Event	Description	Severity
FT: Crawl Aborted	Created when an error exception has been encountered during a full-text crawl.	Medium
FT: Crawl Started	Created when a full-text crawl has started.	Medium
FT: Crawl Stopped	Created when a full-text crawl has stopped.	Medium

SQL Locks Event

The SQL Locks Event facility contains event classes used to monitor locking activity in an instance of the Microsoft SQL Database Engine. These event classes can help you investigate locking problems caused by multiple users reading and modifying data concurrently.

Table 8. SQL Locks events

Event	Description	Severity
Deadlock Graph	Created when an XML description of a deadlock is available.	Medium
Lock: Acquired	Created when acquisition of a lock on a resource has been achieved. (Disabled by default)	Medium
Lock: Cancel	Created when acquisition of a lock on a resource has been canceled. (Disabled by default)	Medium
Lock: Deadlock	Created when an attempt to acquire a lock is canceled because the attempt was part of a deadlock and was chosen as the deadlock victim.	Medium
Lock: Deadlock Chain – Resource Type Exchange	Created when the Deadlock participant information is available for resource type Exchange.	Medium
Lock: Deadlock Chain – Resource Type Lock	Created when the Deadlock participant information is available for resource type Lock.	Medium
Lock: Escalation	Created when a finer-grained lock has been converted to a coarser-grained lock. (Disabled by default)	Medium
Lock: Released	Created when a lock on a resource has been released. (Disabled by default)	Medium
Lock: Timeout	Created when a request for a lock on a resource has timed out because another transaction is holding a blocking lock on the required resource. (Disabled by default)	Medium
Lock: Timeout (timeout > 0)	Created when a request for a lock on a resource has timed out (timeout >0) because another transaction is holding a blocking lock on the required resource. (Disabled by default)	Medium

SQL Objects Event

The SQL Objects Event facility contains general objects events.

Table 9. SQL Objects events

Event	Description	Severity
Object:Altered – Begin	Created when an object is being altered (updated) by one of the ALTER statements. (Disabled by default)	Medium
Object:Altered - Commit	Created when committing changes to an object being updated by one of the ALTER statements. (Disabled by default)	Medium
Object:Altered – Rollback	Created when rolling back changes to an object updated by one of the ALTER statements.	Medium
Object:Created - Begin	Created when an object is being created using one of the CREATE statements. (Disabled by default)	Medium
Object:Created – Commit	Created when committing an object that has been created using one of the CREATE statements. (Disabled by default)	Medium
Object:Created – Rollback	Created when rolling back an object that has been created using one of the CREATE statements.	Medium

Table 9. SQL Objects events

Event	Description	Severity
Object:Deleted – Begin	Created when an object is being deleted using one of the DROP statements. (Disabled by default)	Medium
Object:Deleted – Commit	Created when committing the deletion of an object. (Disabled by default)	Medium
Object:Deleted - Rollback	Created when rolling back an object that has been deleted.	Medium

SQL OLEDB Event

The SQL OLEDB Event facility contains general OLEDB events.

Table 10. SQL OLEDB events

Event	Description	Severity
OLEDB Call - Completed	Created when the SQL Server has completed a call to an OLEDB provider for distributed queries and remote stored procedures.	Medium
OLEDB Call - Starting	Created when the SQL Server has issued a call to an OLEDB provider for distributed queries and remote stored procedures.	Medium
OLEDB DataRead - Completed	Created when the SQL Server has completed reading data from an OLEDB provider for distributed queries and remote stored procedures.	Medium
OLEDB DataRead - Starting	Created when the SQL Server is reading data from an OLEDB provider for distributed queries and remote stored procedures.	Medium
OLEDB Errors	Created when a call to an OLEDB provider returns an error.	Medium
OLEDB Provider Information	Created when a distributed query ran and collected information corresponding to the provider connection.	Medium
OLEDB QueryInterface - Completed	Created when the SQL Server has completed an OLEDB QueryInterface call for distributed queries and remote stored procedures.	Medium
OLEDB QueryInterface – Starting	Created when the SQL Server has issued an OLEDB QueryInterface call for distributed queries and remote stored procedures.	Medium

SQL Performance Event

The SQL Performance Event facility contains event classes used to monitor Showplan events and events that are produces from the execution of SQL Data Manipulation Language (DML) operators.

Table 11. SQL Performance events

Event	Description	Severity
Auto Stats – Async Completed	Created when an automatic updating of index and column statistics has occurred asynchronously; job completed. (Disabled by default)	Medium
Auto Stats – Async Queued	Created when an automatic updating of index and column statistics has occurred asynchronously; job queued. (Disabled by default)	Medium

Table 11. SQL Performance events

Event	Description	Severity
Auto Stats – Async Starting	Created when an automatic updating of index and column statistics has occurred asynchronously; job starting. (Disabled by default)	Medium
Auto Stats –Sync	Created when an automatic updating of index and column statistics has occurred synchronously. (Disabled by default)	Medium
Degree of Parallelism – Delete	Created when SQL Server executed a DELETE statement. (Disabled by default)	Medium
Degree of Parallelism - Insert	Created when SQL Server executed an INSERT statement. (Disabled by default)	Medium
Degree of Parallelism – Select	Created when SQL Server executed a SELECT statement. (Disabled by default)	Medium
Degree of Parallelism – Update	Created when SQL Server executed an UPDATE statement. (Disabled by default)	Medium
Performance Statistics - Cached Query Destroyed	Created when a cached query has been destroyed and the historical performance data associated with the plan is about to be destroyed. (Disabled by default)	Medium
Performance Statistics – New Batch SQL Text	Created when new batch SQL text is not present in the cache. (Disabled by default)	Medium
Performance Statistics – Queries in Ad Hoc Statement Compiled	Created when queries within an ad hoc SQL statement have been compiled. (Disabled by default)	Medium
Performance Statistics – Queries in Stored Procedure Compiled	Created when queries within a stored procedure have been compiled. (Disabled by default)	Medium
Showplan All	Created when SQL Server executes a SQL statement. (Disabled by default)	Medium
Showplan All for Query Compile	Created when SQL Server compiles a SQL statement. (Disabled by default)	Medium
Showplan Statistics Profile	Created when SQL Server executes a SQL statement. (Disabled by default)	Medium
Showplan Text	Created when SQL Server executes a SQL statement. This event class stores each event as binary data. (Disabled by default)	Medium
Showplan Text (Unencoded)	Created when SQL Server executes a SQL statement. This event class is the same as the Showplan Text event class, except the event information is formatted as a string rather than as binary data. (Disabled by default)	Medium
Showplan XML	Created when SQL Server executes a SQL statement. This event class stores each event as a well-defined XML document. (Disabled by default)	Medium
Showplan XML For Query Compile	Created when SQL Server compiles a SQL statement. (Disabled by default)	Medium
Showplan XML Statistics Profile	Created when SQL Server executes a SQL statement. (Disabled by default)	Medium
SQL: FullTextQuery	Created when SQL Server executes a full text query. (Disabled by default)	Medium

SQL Progress Report Event

The SQL Progress Report Event facility contains the Progress Report: Online Index Operation event class.

Table 12. SQL Progress Report events

Event	Description	Severity
Progress Report: Online Index Operation – Done	Created when an Online index build operation is done.	Medium
Progress Report: Online Index Operation – Inserted Row Count	Created when a row count is inserted during an Online index build operation.	Medium
Progress Report: Online Index Operation – Stage 1 Execution Begin	Created when an Online index build operation stage 1 execution begins.	Medium
Progress Report: Online Index Operation – Stage 1 Execution End	Created when an Online index build operation stage 1 execution ends.	Medium
Progress Report: Online Index Operation – Stage 2 Execution Begin	Created when an Online index build operation stage 2 execution begins.	Medium
Progress Report: Online Index Operation – Stage 2 Execution End	Created when an Online index build operation stage 2 execution ends.	Medium
Progress Report: Online Index Operation – Start	Created when an Online index build operation starts.	Medium

SQL Query Notifications Event

The SQL Query Notifications Event facility contains event classes that report information that developers and administrators can use to monitor and troubleshoot query notifications.

Table 13. SQL Query Notifications events

Event	Description	Severity
QN: Dynamics – Clock Run Finished	Created when the background thread in the Database Engine that schedules expired parameter tables for cleanup has finished. (Disabled by default)	Medium
QN: Dynamics – Clock Run Started	Created when the background thread in the Database Engine that schedules expired parameter tables for cleanup has started. (Disabled by default)	Medium
QN: Dynamics – Master Cleanup Task Finished	Created when cleanup to remove expired query notification subscription data finished. (Disabled by default)	Medium
QN: Dynamics – Master Cleanup Task Skipped	Created when the Database Engine did not perform cleanup to remove expired query notification subscription data.	Medium
QN: Dynamics – Master Cleanup Task Started	Created when cleanup to remove expired query notification subscription data has started. (Disabled by default)	Medium
QN: Parameter Table – Cleanup Task Finished	Created when cleanup for all subscriptions in a parameter table has finished.	Medium
QN: Parameter Table – Cleanup Task Started	Created when cleanup for all subscriptions in a parameter table has started.	Medium
QN: Parameter Table – LRU Counter Reset	Created when the usage count for the parameter table has been reset.	Medium
QN: Parameter Table – Number of Users Decremented	Created when the number of query notification subscriptions that reference a parameter table has decreased.	Medium
QN: Parameter Table – Number of Users Incremented	Created when the number of query notification subscriptions that reference a parameter table has increased.	Medium
QN: Parameter Table – Table Attempt Failed	Created when the database tried to drop an unused parameter table and failed.	Medium
QN: Parameter Table - Table Created	Created when a parameter table has been created in the database.	Medium
QN: Parameter Table – Table Drop Attempt	Created when the database has attempted to automatically drop an unused parameter table to free resources.	Medium
QN: Parameter Table – Table Dropped	Created when the database successfully dropped a parameter table.	Medium
QN: Parameter Table – Table Pinned	Created when the parameter table is marked for current usage by internal processing.	Medium
QN: Parameter Table – Table Unpinned	Created when the parameter table has been unpinned.	Medium
QN: Subscription Table – Broker Error Intercepted	Created when a Service Broker delivers an error in the conversation that the query notification uses.	Medium
QN: Subscription Table – Firing Failed With Broker Error	Created when a notification message fails due to a Service Broker.	Medium
QN: Subscription Table – Firing Failed Without Broker Error	Created when a notification message fails but is not due to a Service Broker error.	Medium
QN: Subscription Table – Subscription Deletion Attempt	Created when the Database Engine attempts to delete an expired subscription to free up resources.	Medium
QN: Subscription Table – Subscription Deletion Failed	Created when the attempt to delete an expired subscription has failed.	Medium

Table 13. SQL Query Notifications events

Event	Description	Severity
QN: Subscription Table – Subscription Destroyed	Created when the Database Engine successfully deletes an expired subscription.	Medium
QN: Subscription Table – Subscription Fired	Created when a notification subscription produces a notification message.	Medium
QN: Subscription Table – Subscription Registered	Created when the query notification subscription is successfully registered in the database.	Medium
QN: Subscription Table – Subscription Rewound	Created when the Database Engine receives a subscription request that exactly matches an existing subscription.	Medium
QN: Template – Created	Created when a query notification template has been created in the database.	Medium
QN: Template – Dropped	Created when a query notification template is removed from the database.	Medium
QN: Template – Matched	Created when a query notification template is reused.	Medium

SQL Scan Event

The SQL Scan Event facility contains scan events.

Table 14. SQL Scan events

Event	Description	Severity
Scan: Started	Created when a table or index scan is started. (Disabled by default)	Medium
Scan: Stopped	Created when a table or index scan is stopped. (Disabled by default)	Medium

SQL Security Audit Event

The SQL Security Audit Event facility contains security audit events.

Table 15. SQL Security Audit events

Event	Description	Severity
Audit Access Database Object	Created when the object is accessed.	Medium
Audit Add DB User	Created when the identified login is added as a database user.	Medium
Audit Add Login	Created when the identified SQL Server login is added to the server.	Medium
Audit Add Login to Server Role	Created when the identified login is added to the fixed server role.	Medium
Audit Add Member to DB Role	Created when the identified login is added to the database role.	Medium
Audit Add Role	Created when the database role is added to the database.	Medium
Audit Administer Bulk Server Operations	Created when a bulk server operation is administered.	Medium
Audit Alter Database	Created when the database is altered.	Medium
Audit Alter Database Object	Created when the object is altered.	Medium

Table 15. SQL Security Audit events

Event	Description	Severity
Audit Alter Database Principal	Created when the Database Principle is altered.	Medium
Audit Alter Object Derived Permission	Created when an object with derived permissions is altered.	Medium
Audit Alter Schema Object	Created when a schema object is altered.	Medium
Audit Alter Server Object	Created when a server object is altered.	Medium
Audit Alter Server Principal	Created when a server principal object is altered.	Medium
Audit Alter Server Resources	Created when a server resource is altered.	Medium
Audit Alter Server Settings	Created when a server setting is altered.	Medium
Audit Alter Server State Operations	Created when a server state operation is altered.	Medium
Audit App Role Change Password	Created when a password is changed for the application role.	Medium
Audit Authenticate Server Operations	Created when an authenticate server operation is used.	Medium
Audit Backup	Created when a backup command is issued.	Medium
Audit Backuplog	Created when a backuplog command is issued.	Medium
Audit Broker Conversation - Invalid Signature	Created when the Service Broker could not verify the message signature supplied by the sender using the public key in the sender's certificate.	Medium
Audit Broker Conversation - No Certificate	Created when the Service Broker could not locate a usable certificate for one of the participants in the conversation.	Medium
Audit Broker Conversation - No Security Header	Created during a secure conversation when the Service Broker received a message that did not contain a session key.	Medium
Audit Broker Conversation - Run as Target Failure	Created when the destination user does not have receive permissions on the destination queue.	Medium
Audit Broker Login - Authentication Failure	Created when an Authentication Failure event reports that the Service Broker cannot perform authentication for the connection due to an error.	Medium
Audit Broker Login - Authorization Failure	Created when an Authorization Failure event reports that the Service Broker denied authorization for the connection.	Medium
Audit Broker Login - Login Protocol Error	Created when a Login Protocol Error event reports that the broker received a message that is well-formed but not valid for the current state of the login process.	Medium
Audit Broker Login - Login Success	Created when a Login Success event reports that the adjacent broker login process has finished successfully.	Medium
Audit Broker Login - Message Format Error	Created when a Message Format Error event reports that the broker received a message that does not match the expected format.	Medium
Audit Broker Login - Negotiate Failure	Created when a Negotiate Failure event reports that the local broker and the remote broker support mutually exclusive levels of authentication.	Medium
Audit Change Audit - Audit Started	Created when an audit trace is started. (Disabled by default)	Medium
Audit Change Audit - Audit Stopped	Created when an audit trace is stopped. (Disabled by default)	Medium
Audit Change Audit - C2 Mode OFF	Created when the C2 audit mode is turned OFF.	Medium

Table 15. SQL Security Audit events

Event	Description	Severity
Audit Change Audit - C2 Mode ON	Created when the C2 audit mode is turned ON.	Medium
Audit Change Database Owner	Created when the ALTER AUTHORIZATION statement is used to change the owner of the database and the permissions required to do that are checked.	Medium
Audit Change Member in DB Role	Created when the database role has changed for the identified database login.	Medium
Audit Create Database	Created when the database is created.	Medium
Audit Create Database Object	Created when the object is created.	Medium
Audit Create Database Principal	Created when the Database Principle is created.	Medium
Audit Create Object with Derived Permission	Created when an object with derived permissions is created. (Disabled by default)	Medium
Audit Create Schema Object	Created when a schema object is created.	Medium
Audit Create Server Object	Created when a server object is created.	Medium
Audit Create Server Principal	Created when a server principal object is created.	Medium
Audit Database Mirroring Login - Authentication Failure	Created when an Authentication Failure event reports that a database mirroring endpoint cannot perform authentication for the connection due to an error.	Medium
Audit Database Mirroring Login - Authorization Failure	Created when an Authorization Failure event reports that a database mirroring endpoint denied authorization for the connection.	Medium
Audit Database Mirroring Login - Login Protocol Error	Created when a Login Protocol Error event reports that the database mirroring login receives a message that is well-formed but not valid for the current state of the login process.	Medium
Audit Database Mirroring Login - Login Success	Created when a Login Success event reports that the adjacent database mirroring login process has finished successfully.	Medium
Audit Database Mirroring Login - Message Format Error	Created when a Message Format Error event reports that the database mirroring login received a message that does not match the expected format.	Medium
Audit Database Mirroring Login - Negotiate Failure	Created when a Negotiate Failure event reports that the local database mirroring endpoint and the remote database mirroring endpoint support mutually exclusive levels of authentication.	Medium
Audit Database Object Access	Created when the database object is accessed with the identified permissions.	Medium
Audit Database Object GDR - Deny	Created when the permissions are denied.	Medium
Audit Database Object GDR - Grant	Created when the permissions are granted.	Medium
Audit Database Object GDR - Revoke	Created when the permissions are revoked.	Medium
Audit Database Object Take Ownership	Created when the object is assigned the new owner.	Medium
Audit Database Operation – Checkpoint	Created when the checkpoint operation occurred in the database.	Medium
Audit Database Operation - Subscribe to Query Notification	Created when subscription to query notification occurred in the database.	Medium

Table 15. SQL Security Audit events

Event	Description	Severity
Audit Database Principal Impersonation	Created when an impersonation occurred within the database scope with the identified permissions.	Medium
Audit Database Scope GDR - Deny	Created when a DENY is issued for permissions for database-only actions.	Medium
Audit Database Scope GDR - Grant	Created when a GRANT is issued for permissions for database-only actions.	Medium
Audit Database Scope GDR - Revoke	Created when a REVOKE is issued for permissions for database-only actions.	Medium
Audit DBCC	Created when a DBCC command is issued.	Medium
Audit Disable Server Principal	Created when a server principal object is disabled.	Medium
Audit Drop Credential Mapping	Created when a credential mapping is dropped for the login.	Medium
Audit Drop Database	Created when the database is dropped.	Medium
Audit Drop Database Object	Created when the object is dropped.	Medium
Audit Drop Database Principal	Created when the Database Principle is dropped.	Medium
Audit Drop DB User	Created when the identified login is dropped as a database user.	Medium
Audit Drop Login	Created when the identified SQL Server login is removed from the server.	Medium
Audit Drop Login from Server Role	Created when the identified login is removed from the fixed server role.	Medium
Audit Drop Member from DB Role	Created when the identified login is removed from the database role.	Medium
Audit Drop Object with Derived Permission	Created when an object with derived permissions is dropped. (Disabled by default)	Medium
Audit Drop Role	Created when the database role is removed from the database.	Medium
Audit Drop Schema Object	Created when a schema object is dropped.	Medium
Audit Drop Server Object	Created when a server object is dropped.	Medium
Audit Drop Server Principal	Created when a server principal object is dropped.	Medium
Audit Dump Database	Created when the database is dumped.	Medium
Audit Dump Database Object	Created when the object is dumped.	Medium
Audit Dump Database Principal	Created when the Database Principle is dumped.	Medium
Audit Dump Object Derived Permission	Created when an object with derived permissions is dumped.	Medium
Audit Dump Schema Object	Created when a schema object is dumped.	Medium
Audit Dump Server Object	Created when a server object is dumped.	Medium
Audit Dump Server Principal	Created when a server principal object is dumped.	Medium
Audit Enable Server Principal	Created when a server principal object is enabled.	Medium
Audit External Access Server Operations	Created when an external access server operation is used.	Medium
Audit Grant Database Access to DB User	Created when the identified login is granted access to the database.	Medium
Audit Load Database Object	Created when the object is loaded.	Medium
Audit Load Database Principal	Created when the Database Principle is loaded.	Medium
Audit Load Object Derived Permission	Created when an object with derived permissions is loaded.	Medium

Table 15. SQL Security Audit events

Event	Description	Severity
Audit Load Schema Object	Created when a schema object is loaded.	Medium
Audit Load Server Object	Created when a server object is loaded.	Medium
Audit Load Server Principal	Created when a server principal object is loaded.	Medium
Audit Login	Created when the user has successfully logged in to the SQL Server.	Medium
Audit Login Change Credential Property	Created when the credential property of the login has changed.	Medium
Audit Login Change Default Database Property	Created when the default database property of the login has changed.	Medium
Audit Login Change Default Language Property	Created when the default language property of the login has changed.	Medium
Audit Login Change Expiration Property	Created when the expiration property of the login has changed.	Medium
Audit Login Change Name Property	Created when the name property of the login has changed.	Medium
Audit Login Change Policy Property	Created when the policy property of the login has changed.	Medium
Audit Login Change Password - Changed	Created when the SQL Server login password is changed for the user.	Medium
Audit Login Change Password - Must Change	Created when the SQL Server login password must change for the user.	Medium
Audit Login Change Password - Reset	Created when the SQL Server login password is reset for the user.	Medium
Audit Login Change Password - Self Changed	Created when the SQL Server login password is self changed for the user.	Medium
Audit Login Change Password - Self Reset	Created when the SQL Server login password is self reset for the user.	Medium
Audit Login Change Password – Unlocked	Created when the SQL Server login password has been unlocked for the user.	Medium
Audit Login Change Policy Property	Created when the policy property of the login has changed.	Medium
Audit Login Failed	Created when the user tried to log in to the SQL Server and failed.	Medium
Audit Login GDR - Deny	Created when a Windows Login right is denied for the login.	Medium
Audit Login GDR - Grant	Created when a Windows Login right is granted for the login.	Medium
Audit Login GDR - Revoke	Created when a Windows Login right is revoked for the login.	Medium
Audit Logout	Created when the user has logged out of the SQL Server.	Medium
Audit Map Credential Login	Created when a credential is mapped to the login.	Medium
Audit Open Database Object	Created when the object is opened.	Medium
Audit Restore	Created when a restore command is issued.	Medium
Audit Revoke Database Access from DB User	Created when the identified login is revoked access to the database.	Medium
Audit Schema Object Access	Created when a schema object is used with permissions. (Disabled by default)	Medium
Audit Schema Object GDR - Deny	Created when permissions are denied for a schema object.	Medium
Audit Schema Object GDR - Grant	Created when permissions are granted to a schema object.	Medium

Table 15. SQL Security Audit events

Event	Description	Severity
Audit Schema Object GDR - Revoke	Created when permissions are revoked from a schema object.	Medium
Audit Schema Object Take Ownership	Created when a schema object is assigned a new owner.	Medium
Audit Server Alter Trace	Created when a trace is altered. (Disabled by default)	Medium
Audit Server Object GDR - Deny	Created when permissions are denied for a server object.	Medium
Audit Server Object GDR - Grant	Created when permissions are granted to a server object.	Medium
Audit Server Object GDR - Revoke	Created when permissions are revoked from a server object.	Medium
Audit Server Object Take Ownership	Created when a server object is assigned to a new owner.	Medium
Audit Server Pause	Created when the SQL Server service is paused.	Medium
Audit Server Principal Impersonation	Created when an impersonation occurred within the server scope.	Medium
Audit Server Resume	Created when the SQL Server service is resumed.	Medium
Audit Server Scope GDR - Deny	Created when a DENY is issued for permissions in the server scope.	Medium
Audit Server Scope GDR - Grant	Created when a GRANT is issued for permissions in the server scope.	Medium
Audit Server Scope GDR - Revoke	Created when a REVOKE is issued for permissions in the server scope.	Medium
Audit Server Shutdown	Created when the SQL Server service is shutdown.	Medium
Audit Server Start	Created when the SQL Server service is started.	Medium
Audit Statement Permission	Created when statement permissions are used.	Medium
Audit Transfer Schema Object	Created when a schema object is transferred.	Medium

SQL Server Event

The SQL Server Event facility contains general server events.

Table 16. SQL Server events

Event	Description	Severity
Mount Tape Cancel	Created when a tape mount request is canceled.	Medium
Mount Tape Complete	Created when a tape mount request is completed.	Medium
Mount Tape Request	Created when a tape mount request is received.	Medium
Server Memory Decrease	Created when the memory usage is decreased for the SQL Server.	Medium
Server Memory Increase	Created when the memory usage is increased for the SQL Server.	Medium
Trace File Close	Created when a trace file has been closed during rollback.	Medium

SQL Session Event

The SQL Session Event facility contains general session events.

Table 17. SQL Session events

Event	Description	Severity
Plan Guide Successful	Created when the SQL Server successfully produces an execution plan for a query or batch that contained a plan guide.	Medium
Plan Guide Unsuccessful	Create when the SQL Server can not produce an execution plan for a query or batch that contained a plan guide.	Medium
PreConnect:Completed	Created when a LOGON trigger or the Resource Governor classifier function has finished execution	Medium
PreConnect:Starting	Created when a LOGON trigger or the Resource Governor classifier function started execution	Medium

SQL Stored Procedures Event

The SQL Stored Procedures Event facility contains general stored procedure events.

Table 18. SQL Stored Procedures events

Event	Description	Severity
RPC Output Parameter	Created when the output parameter values of a remote procedure call is available.	Medium
RPC:Completed	Created when a remote procedure call has been completed. (Disabled by default)	Medium
RPC:Starting	Created when a remote procedure call has started. (Disabled by default)	Medium
SP:CacheHit – Compplan Hit	Created when a complied plan was found in the plan cache. (Disabled by default)	Medium
Sp:CacheHit – Execution Context Hit	Created when a free execution plan was found in the plan cache. (Disabled by default)	Medium

Table 18. SQL Stored Procedures events

Event	Description	Severity
SP:CacheInsert	Created when a stored procedure has been inserted into the procedure cache.	Medium
SP:CacheMiss	Created when a stored procedure is not found in the cache. (Disabled by default)	Medium
SP:CacheRemove - Compplan Remove	Created when a compiled query plan has been removed from the cache.	Medium
SP:CacheRemove – Proc Cache Flush	Created when all entries have been removed from the procedure cache.	Medium
SP:Completed	Created when a stored procedure has completed executing. (Disabled by default)	Medium
SP:Recompile – Browse Perms Changed	Created when a stored procedure has been recompiled for browse perms changes.	Medium
SP:Recompile – Cursor Options Changed	Created when a stored procedure has been recompiled for cursor options changes.	Medium
SP:Recompile – MPI View Changed	Created when a stored procedure has been recompiled for MPI view changes.	Medium
SP:Recompile – Query Notification Environment Changed	Created when a stored procedure has been recompiled for query notification environment changes.	Medium
SP:Recompile – Recompile DNR	Created when a stored procedure has been recompiled for DNR recompiles. (Disabled by default)	Medium
SP:Recompile – Recompile Option	Created when a stored procedure has been recompiled with recompile option.	Medium
SP:Recompile – Remote Rowset Changed	Created when a stored procedure has been recompiled for remote rowset changes.	Medium
SP:Recompile – Schema Changed	Created when a stored procedure has been recompiled for schema changes.	Medium
SP:Recompile – Set Option Changed	Created when a stored procedure has been recompiled for set option changes. (Disabled by default)	Medium
SP:Recompile – Statistics Changed	Created when a stored procedure has been recompiled for statistics changes. (Disabled by default)	Medium
SP:Recompile – Temp Table Changed	Created when a stored procedure has been recompiled for temp table changes.	Medium
SP:Starting	Created when a stored procedure is beginning execution. (Disabled by default)	Medium
SP:StmtCompleted	Created when a Transact-SQL statement within a stored procedure has completed. (Disabled by default)	Medium
SP:StmtStarting	Created when a Transact-SQL statement within a stored procedure has started. (Disabled by default)	Medium

SQL Transactions Event

The SQL Transactions Event facility contains event classes that can be used to monitor the status of transactions. The event class names prefixed with TM: are used to track the transaction-related operations that are sent through the transmission management interface.

Table 19. SQL Transactions events

Event	Description	Severity
DTCTransaction – Close Connection	Created when Distributed Transaction Coordinator state is Close Connection.	Medium
DTCTransaction – Creating a New DTC Transaction	Created when Distributed Transaction Coordinator state is Creating A New DTC Transaction.	Medium
DTCTransaction – Enlisting in a DTC Transaction	Created when Distributed Transaction Coordinator state is Enlisting in A DTC Transaction.	Medium
DTCTransaction – Get Address	Created when Distributed Transaction Coordinator state is Get Address.	Medium
DTCTransaction – Internal Abort	Created when Distributed Transaction Coordinator state is Internal Abort.	Medium
DTCTransaction - Internal Active	Created when Distributed Transaction Coordinator state is Internal Active.	Medium
DTCTransaction – Internal Commit	Created when Distributed Transaction Coordinator state is Internal Commit.	Medium
DTCTransaction – Preparing Transaction	Created when Distributed Transaction Coordinator state is Preparing Transaction.	Medium
DTCTransaction – Propagate Transaction	Created when Distributed Transaction Coordinator state is Propagate Transaction.	Medium
DTCTransaction – TM Failed While In Prepared State	Created when Distributed Transaction Coordinator state is TM Failed While in Prepared State.	Medium
DTCTransaction – Transaction Is Aborting	Created when Distributed Transaction Coordinator state is Transaction is Aborting.	Medium
DTCTransaction – Transaction Is Committing	Created when Distributed Transaction Coordinator state is Transaction is Committing.	Medium
DTCTransaction – Transaction Is Prepared	Created when Distributed Transaction Coordinator state is Transaction is Prepared.	Medium
DTCTransaction – Unknown	Created when Distributed Transaction Coordinator state is Unknown.	Medium
SQLTransaction Begin	Created when a SQL transaction has begun. (Disabled by default)	Medium
SQLTransaction Commit	Created when a SQL transaction is committed. (Disabled by default)	Medium
SQLTransaction Rollback	Created when a SQL transaction is rolled back. (Disabled by default)	Medium
SQLTransaction Savepoint	Created when a SQL transaction is at savepoint. (Disabled by default)	Medium
TM: Begin Tran Completed	Created when a BEGIN TRANSACTION request has been completed.	Medium
TM: Begin Tran Starting	Created when a BEGIN TRANSACTION request is starting.	Medium
TM: Commit Tran Completed – Commit	Created when a COMMIT TRANSACTION request is completed.	Medium
TM: Commit Tran Completed – Commit and Begin	Created when a COMMIT TRANSACTION request is completed and a new transaction will be started after the current transaction is committed.	Medium
TM: Commit Tran Starting – Commit	Created when a COMMIT TRANSACTION request is starting.	Medium
TM: Commit Tran Starting – Commit and Begin	Created when a COMMIT TRANSACTION request is starting and a new transaction will be started after the current transaction is committed.	Medium

Table 19. SQL Transactions events

Event	Description	Severity
TM: Promote Tran Completed	Created when a PROMOTE TRANSACTION request has completed.	Medium
TM: Promote Tran Starting	Created when a PROMOTE TRANSACTION request is starting.	Medium
TM: Rollback Tran Completed – Rollback	Created when a ROLLBACK TRANSACTION request has completed.	Medium
TM: Rollback Tran Completed – Rollback and Begin	Created when a ROLLBACK TRANSACTION request has completed and a new transaction will be started after the current transaction is rolled back.	Medium
TM: Rollback Tran Starting – Rollback	Created when a ROLLBACK TRANSACTION request is starting.	Medium
TM: Rollback Tran Starting – Rollback and Begin	Created when a ROLLBACK TRANSACTION request is starting and a new transaction will be started after the current transaction is rolled back.	Medium
TM:Save Tran Completed	Created when a SAVE TRANSACTION request has completed.	Medium
TM:Save Tran Starting	Created when a SAVE TRANSACTION request has started.	Medium
TransactionLog	Created when a Transaction log activity has occurred. (Disabled by default)	Medium

SQL TSQL Event

The SQL TSQL Event facility contains general TSQL events.

Table 20. SQL TSQL events

Event	Description	Severity
Exec Prepared SQL	Created when the SqlClient, ODBC, OLEDB, or D-Library has executed a prepared Transact-SQL statement or statements. (Disabled by default)	Medium
Prepare SQL	Created when the SqlClient, ODBC, OLEDB, or D-Library has prepared a Transact-SQL statement or statements for use. (Disabled by default)	Medium
SQL:BatchCompleted	Created when a Transact-SQL batch has completed. (Disabled by default)	Medium
SQL:BatchStarting	Created when a Transact-SQL batch is starting. (Disabled by default)	Medium
SQL:StmtCompleted	Created when a Transact-SQL statement has completed. (Disabled by default)	Medium
SQL:StmtRecompile – Browse Permissions Changed	Created when statement-level recompilations occurred for browse permission changes.	Medium
SQL:StmtRecompile – Cursor Options Changed	Created when statement-level recompilations occurred for cursor options changes.	Medium
SQL:StmtRecompile – Deferred Compile	Created when statement-level recompilations occurred for deferred compiles. (Disabled by default)	Medium
SQL:StmtRecompile – Options Requested	Created when statement-level recompilations occurred for options (recompile) requests.	Medium
SQL:StmtRecompile – Partition View Changed	Created when statement-level recompilations occurred for partition view changes.	Medium

Table 20. SQL TSQL events

Event	Description	Severity
SQL:StmtRecompile – Query Notification Environment Changed	Created when statement-level recompilations occurred for query notification environment changed.	Medium
SQL:StmtRecompile – Remote Rowset Changed	Created when statement-level recompilations occurred for remote rowset changes.	Medium
SQL:StmtRecompile – Schema Changed	Created when statement-level recompilations occurred for schema changes.	Medium
SQL:StmtRecompile – Set Option Changed	Created when statement-level recompilations occurred for set option changes. (Disabled by default)	Medium
SQL:StmtRecompile – Statistics Changed	Created when statement-level recompilations occurred for statistics changes. (Disabled by default)	Medium
SQL:StmtRecompile – Temp Table Changed	Created when statement-level recompilations occurred for temp table changes.	Medium
SQL:StmtStarting	Created when a Transact-SQL statement has started. (Disabled by default)	Medium
Unprepare SQL	Created when the SqlClient, ODBC, OLEDB, or DB-Library has unprepared (deleted) a prepared Transact-SQL statement or statements. (Disabled by default)	Medium
XQuery Static Type	Created when the SQL Server® executed an XQuery expression. (Disabled by default)	Medium

SQL User-Configurable Event

Use the SQL User-Configurable Event facility to monitor user-defined events that cannot be audited by the system-supplied event classes in the other SQL facilities.

Table 21. SQL User-configurable events

Event	Description	Severity
User-Configurable-0	Created when User-Configurable event 0 occurs.	Medium
User-Configurable-1	Created when User-Configurable event 1 occurs.	Medium
User-Configurable-2	Created when User-Configurable event 2 occurs.	Medium
User-Configurable-3	Created when User-Configurable event 3 occurs.	Medium
User-Configurable-4	Created when User-Configurable event 4 occurs.	Medium
User-Configurable-5	Created when User-Configurable event 5 occurs.	Medium
User-Configurable-6	Created when User-Configurable event 6 occurs.	Medium
User-Configurable-7	Created when User-Configurable event 7 occurs.	Medium
User-Configurable-8	Created when User-Configurable event 8 occurs.	Medium
User-Configurable-9	Created when User-Configurable event 9 occurs.	Medium

SQL Data Level Event

The SQL Data Level facility contains event classes that are used to monitor SQL data changes.

Table 22. SQL Data Level Auditing events

Event	Description	Severity
Row added to a table	Created when a row has been added to a table.	High
Row updated in a table	Created when a row has been updated in a table.	High
Row removed from a table	Created when a row has been deleted from a table.	High
Table added	Created when a table has been added to a database.	High
Table removed	Created when a table has been deleted from a database.	High
Table altered	Created when a database table has been altered.	High
Table truncated	Created when a table has been truncated in a database.	Medium
View added	Created when a view is added to a database.	Medium
View removed	Created when a view has been deleted from a database.	Medium
View altered	Created when a database view has been altered.	Medium
Procedure added	Created when a procedure has been added to a database.	Medium
Procedure removed	Created when a table has been deleted from a database.	Medium
Procedure altered	Created when a database procedure has been altered.	Medium
Function added	Created when a function table has been added to a database.	Medium
Function removed	Created when a function has been deleted from a database.	Medium
Function altered	Created when a database function has been altered.	Medium
Index added to a table	Created when an index has been added to a table.	Medium
Index removed from a table	Created when an index has been deleted from a table.	Medium
Trigger added	Created when a trigger has been added.	Medium
Trigger removed	Created when a trigger has been deleted.	Medium

Table 22. SQL Data Level Auditing events

Event	Description	Severity
Trigger altered	Created when a table trigger has been altered.	Medium
Rule added	Created when a rule has been added to a database.	Medium
Rule removed	Created when a rule has been deleted from a database.	Medium
Object renamed	Created when a database object has been renamed.	Medium
Primary key added to a table	Created when a primary key has been added to a table.	Medium
Primary key removed from a table	Created when a primary key has been deleted from a table.	Medium
Foreign key added to a table	Created when a foreign key has been added to a table.	Medium
Foreign key removed from a table	Created when a foreign key has been deleted from a table.	Medium
Default object added	Created when a default object has been added to a database.	Medium
Default object removed	Created when a default object has been deleted from a database.	Medium
Default constraint added to a table	Created when a default constraint has been added to a table.	Medium
Default constraint removed from a table	Created when a default constraint has been deleted from a table.	Medium
Check constraint added to a table	Created when a check constraint has been added to a table.	Medium
Check constraint removed from a table	Created when a check constraint has been deleted from a table.	Medium
Type added	Created when a type has been added to a database.	Medium
Type removed	Created when a type has been deleted from a database.	Medium
Statistics added to a table	Created when statistics have been added to a table.	Medium
Statistics removed from a table	Created when statistics have been deleted from a table.	Medium

Table 22. SQL Data Level Auditing events

Event	Description	Severity
User added	Created when a user has been added to a database.	High
User removed	Created when a user has been removed from a database.	High

SQL Extended Events

The SQL Extended Events facility contains event classes that are used to monitor SQL data changes that are part of the Admin, Analytic, and Operational channels.

Table 23. SQL Extended Events Auditing events

Event	Description	Severity
SQL Server Admin Extended Event	Created when an SQL Extended Event occurs in the Admin channel.	Medium
SQL Server Analytic Extended Event	Created when an SQL Server Analytic Extended Event occurs in the Analytic channel.	Medium
SQL Server Operational Extended Event	Created when an SQL Server Operational Extended Event occurs in the Operational channel.	Medium

Log Events

When event logging for SQL is enabled in Change Auditor, SQL events will be written to a Windows event log, named ChangeAuditor for SQL. This event log can then be gathered by InTrust for further processing and reporting.

> **i** | **NOTE:** To enable event logging, select Event Logging on the Agent Configuration page (Administration Tasks tab), and select the type of event logging to be enabled.

ChangeAuditor for SQL event log

The following SQL events are recorded to the ChangeAuditor for SQL event log when **SQL** event logging is enabled. They are listed below in numeric order by Event ID.

Table 24. ChangeAuditor for SQL event log events

Event ID	Description
2560	RPC: Completed
2816	RPC: Starting
3072	SQL: BatchCompleted
3328	SQL: BatchStarting
3584	Audit Login
3840	Audit Logout
4096	Attention Event
4609	Audit Server Shutdown
4610	Audit Server Start
4611	Audit Server Pause
4612	Audit Server Resume
4864	DTCTransaction – Get Address
4865	DTCTransaction – Propagate Transaction
4867	DTCTransaction – Close Connection
4870	DTCTransaction – Creating a new DTC Transaction
4871	DTCTransaction – Enlisting in a DTC Transaction
4872	DTCTransaction – Internal Active
4873	DTCTransaction – Internal Commit
4874	DTCTransaction – Internal Abort
4878	DTCTransaction – Preparing Transaction
4879	DTCTransaction – Transaction is Prepared
4880	DTCTransaction – Transaction is Aborting
4881	DTCTransaction – Transaction is Committing

Table 24. ChangeAuditor for SQL event log events

Event ID	Description
4886	DTCTransaction – TM Failed While in Prepared State
4887	DTCTransaction – Unknown
5120	Audit Login Failed
5376	Event Logged
5632	Error Logged
5888	Lock: Released
6144	Lock: Acquired
6400	Lock: Deadlock
6656	Lock: Cancel
6912	Lock: Timeout
7169	Degree of Parallelism – Select
7170	Degree of Parallelism – Insert
7171	Degree of Parallelism – Update
7172	Degree of Parallelism – Delete
8448	Exception
8704	SP:CacheMiss
8960	SP:CacheInsert
9217	SP:CacheRemove – Compplan Remove
9218	SP:CacheRemove – Proc Cache Flush
9473	SP:Recompile – Schema Changed
9474	SP:Recompile – Statistics Changed
9475	SP:Recompile – Recompile DNR
9476	SP:Recompile – Set Option Changed
9477	SP:Recompile – Temp Table Changed
9478	SP:Recompile – Remote Rowset Changed
9479	SP:Recompile – Browse Perms Changed
9480	SP:Recompile – Query Notification Environment Changed
9481	SP:Recompile – MPI View Changed
9482	SP:Recompile – Cursor Options Changed
9483	SP:Recompile – Recompile Option
9729	SP:CacheHit – Execution Context Hit
9730	SP:CacheHit – Compplan Hit
10240	SQL:StmtStarting
10496	SQL:StmtCompleted
10752	SP:Starting
11008	SP:Completed
11264	SP:StmtStarting
11520	SP:StmtCompleted
11776	Object: Created – Begin
11777	Object: Created – Commit
11778	Object: Created – Rollback
12032	Object: Deleted – Begin

Table 24. ChangeAuditor for SQL event log events

Event ID	Description
12033	Object: Deleted – Commit
12034	Object: Deleted – Rollback
12800	SQL Transaction Begin
12801	SQL Transaction Commit
12802	SQL Transaction Rollback
12803	SQL Transaction Savepoint
13056	Scan: Started
13312	Scan: Stopped
13568	Cursor – Open
13824	TransactionLog
14080	Hash Warning – Recursion
14081	Hash Warning – Bailout
14849	Auto Stats - Sync
14850	Auto Stats – Async Queued
14851	Auto Stats – Async Starting
14852	Auto Stats – Async Completed
15205	Lock: Deadlock Chain – Resource Type Lock
15206	Lock: Deadlock Chain – Resource Type Exchange
15360	Lock: Escalation
15616	OLEDB Errors
17153	Execution Warnings – Query Wait
17154	Execution Warnings – Query Timeout
17408	Showplan – Text (Unencoded)
17665	Sort Warnings – Single Pass
17666	Sort Warnings – Multiple Pass
17920	Cursor – Prepare
18176	Prepare SQL
18432	Exec Prepared SQL
18688	Unprepare
18944	Cursor – Execute
19200	Cursor – Recompile
19456	Cursor – Implicit Conversion
19712	Cursor – Unprepare
19968	Cursor – Close
20224	Missing Column Statistics
20480	Missing Join Predicate
20737	Server Memory Increase
20738	Server Memory Decrease
20992	User-Configurable 0
21248	User-Configurable 1
21504	User-Configurable 2
21760	User-Configurable 3

Table 24. ChangeAuditor for SQL event log events

Event ID	Description
22016	User-Configurable 4
22272	User-Configurable 5
22528	User-Configurable 6
22784	User-Configurable 7
23040	User-Configurable 8
23296	User-Configurable 9
23552	Data File Auto Grow
23808	Log File Auto Grow
24064	Data File Auto Shrink
24320	Log File Auto Shrink
24576	Showplan Text
24832	Showplan All
25088	Showplan Statistics Profile
25600	PRC Output Parameter
26113	Audit Database Scope GDR - Grant
26114	Audit Database Scope GDR – Revoke
26115	Audit Database Scope GDR – Deny
26369	Audit Schema Object GDR – Grant
26370	Audit Schema Object GDR – Revoke
26371	Audit Schema Object GDR – Deny
26625	Audit Add Login
26626	Audit Drop Login
26881	Audit Login GDR – Grant
26882	Audit Login GDR – Revoke
26883	Audit Login GDR – Deny
27137	Audit Login Change Default Database Property
27138	Audit Login Change Default Language Property
27139	Audit Login Change Name Property
27140	Audit Login Change Credential Property
27141	Audit Login Change Policy Property
27142	Audit Login Change Expiration Property
27393	Audit Login Change Password – Self Changed
27394	Audit Login Change Password – Changed
27395	Audit Login Change Password – Self Reset
27396	Audit Login Change Password – Reset
27397	Audit Login Change Password – Unlocked
27398	Audit Login Change Password – Must Change
27649	Audit Add Login to Server Role
27650	Audit Drop Login from Server Role
27905	Audit Add DB User
27906	Audit Drop DB User
27907	Audit Grant Database Access to DB User

Table 24. ChangeAuditor for SQL event log events

Event ID	Description
27908	Audit Remove Database Access from DB User
28161	Audit Add Member to DB Role
28162	Audit Drop Member from DB Role
28163	Audit Change Member in DB Role
28417	Audit Add Role
28418	Audit Drop Role
28672	Audit App Role Change Password
28928	Audit Statement Permissions
29184	Audit Schema Object Access
29441	Audit Backup
29442	Audit Restore
29443	Audit Backuplog
29696	Audit DBCC
29953	Audit Change Audit – Audit Started
29954	Audit Change Audit – Audit Stopped
29955	Audit Change Audit – C2 Mode ON
29956	Audit Change Audit – C2 Mode OFF
30209	Audit Create Object with Derived Permission
30210	Audit Alter Object Derived Permission
30211	Audit Drop Object Derived Permission
30212	Audit Dump Object Derived Permission
30219	Audit Load Object Derived Permission
30464	OLEDB Call – Starting
30465	OLEDB Call – Completed
30720	OLEDB QueryInterface – Starting
30721	OLEDB QueryInterface – Completed
30976	OLEDB DataRead – Starting
30977	OLEDB DataRead - Completed
31232	Showplan XML
31488	SQL: FullTextQuery
31745	Broker: Conversation – Send Message
31746	Broker: Conversation – End Conversation
31747	Broker: Conversation – End Conversation with Error
31748	Broker: Conversation – Broker Initiated Error
31749	Broker: Conversation – Terminate Dialog
31750	Broker: Conversation – Received Sequenced Message
31751	Broker: Conversation – Received End Conversation
31752	Broker: Conversation – Received End Conversation with Error
31753	Broker: Conversation – Received Broker Error Message
31754	Broker: Conversation – Received End Conversation Ack
31755	Broker: Conversation – Begin Dialog
31756	Broker: Conversation – Dialog Created

Table 24. ChangeAuditor for SQL event log events

Event ID	Description
31757	Broker: Conversation – End Conversation with Cleanup
32000	Deprecation Announcement
32256	Deprecation Final Support
32513	Exchange Spill – Begin
32514	Exchange Spill – End
32769	Audit Create Database
32770	Audit Alter Database
32771	Audit Drop Database
32772	Audit Dump Database
33025	Audit Create Database Object
33026	Audit Alter Database Object
33027	Audit Drop Database Object
33028	Audit Dump Database Object
33034	Audit Open Database Object
33035	Audit Load Database Object
33036	Audit Access Database Object
33281	Audit Create Database Principal
33282	Audit Alter Database Principal
33283	Audit Drop Database Principal
33284	Audit Dump Database Principal
33291	Audit Load Database Principal
33537	Audit Create Schema Object
33538	Audit Alter Schema Object
33539	Audit Drop Schema Object
33540	Audit Dump Schema Object
33544	Audit Transfer Schema Object
33547	Audit Load Schema Object
33792	Audit Server Principal Impersonation
34048	Audit Database Principal Impersonation
34304	Audit Server Object Take Ownership
34560	Audit Database Object Take Ownership
34817	Broker: Conversation Group – Create
34818	Broker: Conversation Group – Drop
35072	Blocked Process Report
35329	Broker: Connection – Connecting
35330	Broker: Connection – Connected
35331	Broker: Connection – Connect Failed
35332	Broker: Connection – Closing
35333	Broker: Connection – Closed
35334	Broker: Connection – Accept
35335	Broker: Connection – Send IO Error
35336	Broker: Connection – Receive IO Error

Table 24. ChangeAuditor for SQL event log events

Event ID	Description
35584	Broker: Forwarded Message Sent
35840	Broker: Forwarded Message Dropped
36097	Broker: Message Classify – Local
36098	Broker: Message Classify – Remote
36099	Broker: Message Classify – Delayed
36352	Broker: Transmission
36608	Broker: Queue Disabled
36864	Broker: Mirrored Route State Changed
37376	Showplan XML Statistics Profile
37888	Deadlock Graph
38145	Broker: Remote Message Ack – Message with Acknowledgment Sent
38146	Broker: Remote Message Ack – Acknowledgment Sent
38147	Broker: Remote Message Ack – Message with Acknowledgment Received
38148	Broker: Remote Message Ack – Acknowledgment Received
38400	Trace File Close
38656	Database Mirroring Connection
38912	Audit Change Database Owner
39168	Audit Schema Object Take Ownership
39425	Audit Database Mirroring Login – Login Success
39426	Audit Database Mirroring Login – Login Protocol Error
39427	Audit Database Mirroring Login – Message Format Error
39428	Audit Database Mirroring Login – Negotiate Failure
39429	Audit Database Mirroring Login – Authentication Failure
39340	Audit Database Mirroring Login – Authorization Failure
39680	FT: Crawl Started
39936	FT: Crawl Stopped
40192	FT: Crawl Aborted
40449	Audit Broker Conversation – No Security Header
40450	Audit Broker Conversation – No Certificate
40451	Audit Broker Conversation – Invalid Signature
40452	Audit Broker Conversation – Run as Target Failure
40705	Audit Broker Login – Login Success
40706	Audit Broker Login – Login Protocol Error
40707	Audit Broker Login – Message Format Error
40708	Audit Broker Login – Negotiate Failure
40709	Audit Broker Login – Authentication Failure
40710	Audit Broker Login – Authorization Failure
40961	Broker: Sequenced Message Undeliverable
40962	Broker: Unsequenced Messaged Undeliverable
41216	Broker: Corrupted Message
41472	User Error Message
41729	Broker: Activation – Start

Table 24. ChangeAuditor for SQL event log events

Event ID	Description
41730	Broker: Activation – Ended
41731	Broker: Activation – Aborted
41984	Object: Altered – Begin
41985	Object: Altered – Commit
41986	Object: Altered – Rollback
42240	Performance Statistics – New Batch SQL Text
42241	Performance Statistics – Queries in Stored Procedures Compiled
42242	Performance Statistics – Queries in Ad Hoc Statement Compiled
42243	Performance Statistics – Cached Query Destroyed
42497	SQL: StmtRecompile – Schema Changed
42498	SQL: StmtRecompile – Statistics Changed
42499	SQL: StmtRecompile – Deferred Compile
42500	SQL: StmtRecompile – Set Option Changed
42501	SQL: StmtRecompile – Temp Table Changed
42502	SQL: StmtRecompile – Remote Rowset Changed
42503	SQL: StmtRecompile – Browse Permissions Changed
42504	SQL: StmtRecompile – Query Notification Environment Changed
42505	SQL: StmtRecompile – Partition View Changed
42506	SQL: StmtRecompile – Cursor Options Changed
42507	SQL: StmtRecompile – Options Requested
42752	Database Mirroring State Change
43008	Showplan XML for Query Compile
43264	Showplan All for Query Compile
43521	Audit Server Scope GDR – Grant
43522	Audit Server Scope GDR – Revoke
43523	Audit Server Scope GDR – Deny
43777	Audit Server Object GDR – Grant
43778	Audit Server Object GDR – Revoke
43779	Audit Server Object GDR – Deny
44033	Audit Database Object GDR – Grant
44034	Audit Database Object GDR – Revoke
44035	Audit Database Object GDR – Deny
44289	Audit Administrator Bulk Server Operations
44290	Audit Alter Server Setting
44291	Audit Alter Server Resources
44292	Audit Authenticate Server Operations
44293	Audit External Access Server Operations
44463	Audit Alter Server State Operations
44800	Audit Server Alter Trace
45057	Audit Create Server Object
45058	Audit Alter Server Object
45059	Audit Drop Server Object

Table 24. ChangeAuditor for SQL event log events

Event ID	Description
45060	Audit Dump Server Object
45063	Audit Map Credential Login
45065	Audit Drop Credential Mapping
45067	Audit Load Server Object
45313	Audit Create Server Principal
45314	Audit Alter Server Principal
45315	Audit Drop Server Principal
45316	Audit Dump Server Principal
45317	Audit Disable Server Principal
45318	Audit Enable Server Principal
45323	Audit Load Server Principal
45569	Audit Database Operation – Checkpoint
45570	Audit Database Operation – Subscribe to Query Notification
46080	Audit Database Object Access
46336	TM: Begin Tran Starting
46592	TM: Begin Tran Completed
46848	TM: Promote Tran Starting
47104	TM: Promote Tran Completed
47361	TM: Commit Tran Starting – Commit
47362	TM: Commit Tran Starting – Commit and Begin
47617	TM: Commit Tran Completed – Commit
47618	TM: Commit Tran Completed – Commit and Begin
47873	TM: Rollback Tran Starting – Rollback
47874	TM: Rollback Tran Starting – Rollback and Begin
48129	TM: Rollback Tran Completed - Rollback
48130	TM: Rollback Tran Completed – Rollback and Begin
48384	Lock: Timeout (timeout > 0)
48641	Progress Report: Online Index Operation – Start
48642	Progress Report: Online Index Operation – Stage 1 Execution Begin
48643	Progress Report: Online Index Operation – Stage 1 Execution End
48644	Progress Report: Online Index Operation – Stage 2 Execution Begin
48645	Progress Report: Online Index Operation – Stage 2 Execution End
48646	Progress Report: Online Index Operation – Inserted Row Count
48947	Progress Report: Online Index Operation – Done
48896	TM: Save Tran Starting
49152	TM: Save Tran Completed
49409	Background Job Error – Failure with Error
49410	Background Job Error – Queue is Full
49411	Background Job Error – Returned Error
49664	OLEDB Provider Information
49921	Mount Tape Request
49922	Mount Tape Complete

Table 24. ChangeAuditor for SQL event log events

Event ID	Description
49923	Mount Tape Cancel
50176	Assembly Load
50688	Xquery Static Type
50945	QN:Subscription Table – Subscription Registered
50946	QN:Subscription Table – Subscription Rewound
50947	QN:Subscription Table – Subscription Fired
50948	QN:Subscription Table – Firing Failed with Broker Error
50949	QN:Subscription Table – Firing Failed without Broker Error
50950	QN:Subscription Table – Broker Error Intercepted
50951	QN:Subscription Table – Subscription Deletion Attempt
50952	QN:Subscription Table – Subscription Deletion Failed
50953	QN:Subscription Table – Subscription Destroyed
51201	QN:Parameter Table – Table Created
51202	QN:Parameter Table – Table Drop Attempt
51203	QN:Parameter Table – Table Attempt Failed
51204	QN:Parameter Table – Table Dropped
51205	QN:Parameter Table – Table Pinned
51206	QN:Parameter Table – Table Unpinned
51207	QN:Parameter Table – Number of Users Incremented
51208	QN:Parameter Table – Number of Users Decremented
51209	QN:Parameter Table – LRU Counter Reset
51210	QN:Parameter Table – Cleanup Task Started
51211	QN:Parameter Table – Cleanup Task Finished
51457	QN:Template – Created
51458	QN:Template – Matched
51459	QN:Template – Dropped
51713	QN:Dynamics – Clock Run Started
51714	QN:Dynamics – Clock Run Finished
51715	QN:Dynamics – Master Cleanup Task Started
51716	QN:Dynamics – Master Cleanup Task Finished
51717	QN:Dynamics – Master Cleanup Task Skipped
54272	Bitmap Warning
54528	Database Suspect Data Page
54784	CPU Threshold Exceeded
55040	PreConnect: Completed
55296	PreConnect: Starting
55552	Plan Guide Successful
55808	Plan Guide Unsuccessful

ChangeAuditor for SQL Data Level event log

The following SQL Data Level events are recorded to the ChangeAuditor for SQL Data Level event log when SQL Data level event logging is enabled. They are listed below in numeric order by Event ID.

Table 25. ChangeAuditor for SQL event log events

Event ID	Description
600	Row Added to a Table
601	Row Updated in a Table
602	Row Removed from a Table
603	Table Added
604	Table Removed
605	Table Altered
606	Table Truncated
607	View Added
608	View Removed
609	View Altered
610	Procedure Added
611	Procedure Removed
612	Procedure Altered
613	Function Added
614	Function Removed
615	Function Altered
616	Index Added to a Table
617	Index Removed from a Table
618	Trigger Added
619	Trigger Removed
620	Trigger Altered
621	Rule Added
622	Rule Removed
623	Object Renamed
624	Primary Key Added to a Table
625	Primary Key Removed from a Table
626	Foreign Key Added to a Table
627	Foreign Key Removed from a Table
628	Default Object Added
629	Default Object Removed
630	Default Constraint Added to a Table
631	Default Constraint Removed from a Table
632	Check Constraint Added to a Table
633	Check Constraint Removed from a Table
634	Type Added
635	Type Removed

Table 25. ChangeAuditor for SQL event log events

Event ID	Description
636	Statistics Added to a Table
637	Statistics Removed from a Table
638	User Added
639	User Removed

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Quest creates software solutions that make the benefits of new technology real in an increasingly complex IT landscape. From database and systems management, to Active Directory and Office 365 management, and cyber security resilience, Quest helps customers solve their next IT challenge now. Around the globe, more than 130,000 companies and 95% of the Fortune 500 count on Quest to deliver proactive management and monitoring for the next enterprise initiative, find the next solution for complex Microsoft challenges and stay ahead of the next threat. Quest Software. Where next meets now. For more information, visit www.quest.com.

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Our logo reflects our story: innovation, community and support. An important part of this story begins with the letter Q. It is a perfect circle, representing our commitment to technological precision and strength. The space in the Q itself symbolizes our need to add the missing piece—you—to the community, to the new Quest.

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Technical support is available to Quest customers with a valid maintenance contract and customers who have trial versions. You can access the Quest Support Portal at https://support.quest.com.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request.
- View Knowledge Base articles.
- Sign up for product notifications.
- Download software and technical documentation.
- View how-to-videos.
- Engage in community discussions.
- Chat with support engineers online.
- View services to assist you with your product.