

ApexSQL® Complete 2021.x

Release Notes

These release notes provide information about the ApexSQL® Complete 2021.x which is a minor release.

Topics:

- About ApexSQL Complete
- New features
- Getting Started
- System requirements
- Supported platforms
- Product licensing
- Release History
- About us

About ApexSQL Complete

ApexSQL Complete is a SQL Server Management Studio and Visual Studio add-in, that speeds up coding by automatically completing SQL code statements, filling in SQL code fragments and more.

New Features

This version of ApexSQL Complete introduces the following new features, enhancements or deprecations:

Enhancements:

- The time to display the right-click context menu in the Object Explorer panel has been improved up to 60%
- Auto-complete hints list appearing time has been improved up to 50% when working on scripts with more than 10,000 lines of code

Fixes:

- 135365: SQL Server Management Studio freezes when a table from the hint list is selected and the Show object script option is enabled in settings on Azure SQL Databases
- 136831: Global aliases do not appear in the hint list when connected to an SQL Server instance using the IP address
- 143588: Results search window allows custom values in the predefined drop-down options under the Look in section
- 144110: Insert into statement sub-option from the Copy results as options under the rightclick context menu of the Results grid does not escape single quotation marks (') when exporting the date type value
- 146379: Auto-complete hint list does not show the column list of tables after the Openjson function
- 150182: Server Management Studio stops working when a large result set with more than 1,200,000 rows is searched using the Results search feature
- 153186: Context menu of SQL Server Management Studio's Object Explorer needs about 10 seconds to appear and causes the host application to hang when a user has db_datareader and db_datawriter database permissions only
- 153951: SQL code competition doesn't work with SQL files that are coming from within a solution in Solution Explorer
- 156946: SQL Server Management Studio freezes up to a minute when the Linked server credentials window is shown in the query editor
- 161458: SQL Server Management Studio stops working when a new query is opened if the connection is established to an Azure instance using the Active Directory Universal with MFA support authentication method
- 161827: Query tabs are not restored on SQL Server Management Studio 2014 startup from the point when they have been saved using the Save workspace option
- 165808: Host application freezes when a table that does not exist in a database is specified in the Insert statement
- 166507: Performance degradation of 50% in processing typed characters when the .sql file location is on a network drive
- 166664: Auto-complete hint list is positioned incorrectly when the cursor is near the bottom of the query editor
- 168851: Auto-complete generates invalid syntax when a column is selected from the list of suggestions in the Create index statement
- 181162: Send anonymous usage statistics option is saved when checked and discard by clicking the Cancel button in the Options window
- 188582: SQL Server Management Studio stops working when the Edit and Delete buttons are clicked randomly in the Auto-replacement window
- 188918: Go to object feature does not query the selected database from either Object Explorer or Available Databases drop-down menu when a database for the connection is set to any database other than the default under connection properties
- 200849: The right-click context menu of Object Explorer has a delay of about 6 seconds when connected to an SQL Server instance using any of the Azure Active Directory authentication methods

- 193835: “Delete statement without a Where clause” built-in execution alert is triggered even though there is the Where clause in the Delete statement
- 193838: Execution alert conditions are not being saved after either SQL Server Management Studio or Visual Studio restart
- 194773: Auto-complete hint list does not show column suggestions after the Where clause when querying table containing a special character in its name
- 93604: Auto-complete hint list does not show context-sensitive hints after the Join keyword when used after the Cross-join statement

Changes:

- Executed queries feature has been renamed to Query history
- Log executed queries option has been renamed to Log ran queries

Getting Started

- For further information about installation and getting started, please check the [Quest Knowledge Base](#) or [ApexSQL Getting Started](#).

System requirements

Before installing or upgrading Short Product Name Version, ensure that your system meets the following minimum hardware and software requirements.

Hardware	Dual Core 2.0 GHz CPU 4 GB memory 104 MB disk space
SQL Server	SQL Server 2005 and higher ^[1] Azure SQL Database ^[1] Amazon RDS for SQL Server ^[1]
Add-in integration	SQL Server Management Studio 2012 and higher ^[2] Visual Studio 2010 and higher ^[1]
OS	Windows 7 SP1/Windows Server 2008 R2 SP1 and higher ^[1]

Software	.NET Framework 4.7.2 or higher
Permissions and additional requirements	<p>Windows user account with administrative privileges</p> <p>See Minimum permissions required to install and use ApexSQL products</p> <p>See Minimum SQL Server permissions for ApexSQL Developer tools</p> <p>See Remote access for SQL Server instance</p>

^[1] See [Supported systems](#) for exact version support

^[2] You can use the latest full-featured backwards compatible SQL Server Management Studio for free. [Click here](#)

Supported platforms

Windows version				
Windows 7 SP1 & Windows Server 2008 R2 SP1	Windows Server 2012	Windows 8.1 & Windows Server 2012 R2	Windows 10 & Windows Server 2016	Windows Server 2019
✓	✓	✓	✓	✓

SQL Server version ^[4]							
	2005	2008	2012	2014	2016	2017	2019 CTP 3
						Windows	Linux ^[3]
						Windows	Linux ^[3]

ApexSQL Complete	✓	✓	✓	✓	✓	✓	✓	✓	✓
------------------	---	---	---	---	---	---	---	---	---

SQL Server edition ^[4]						
	Express	Standard	Enterprise	Azure SQL Database		Amazon RDS for SQL Server
				Single Database, Elastic Pool	Managed Instance	
ApexSQL Complete	✓	✓	✓	✓	✓	✓

Visual Studio add-in integration						
	2010	2012	2013	2015	2017	2019
ApexSQL Complete	✓	✓	✓	✓	✓	✓

SQL Server Management Studio add-in integration					
	2012	2014	2016	17	18
ApexSQL Complete	✓	✓	✓	✓	✓

^[3] Tested on Ubuntu 16.04

^[4] Including Amazon EC2, Google Compute Engine, and Azure Virtual Machine cloud computing SQL Server instances.

Product licensing

ApexSQL offers 2 types of licenses:

1. Individual license

For applications licensed per user, an individual license is for the use of a single user only. This means that only 1 user can use 1 license. If there are multiple users, multiple licenses are needed.

For applications licensed per instance, an individual license is to be used on a single SQL Server instance only. If there are multiple instances, multiple licenses are needed.

2. Enterprise license

An enterprise license can be activated on an unlimited number of instances and can be used by an unlimited number of users, without geographical limitations.

Release History [\(release notes\)](#)

Release: 2021.02.0631

Date: February 18, 2021

Enhancements:

- The time to display the right-click context menu in the Object Explorer panel has been improved up to 60%
- Auto-complete hints list appearing time has been improved up to 50% when working on scripts with more than 10,000 lines of code

Fixes:

- 135365: SQL Server Management Studio freezes when a table from the hint list is selected and the Show object script option is enabled in settings on Azure SQL Databases
- 136831: Global aliases do not appear in the hint list when connected to an SQL Server instance using the IP address
- 143588: Results search window allows custom values in the predefined drop-down options under the Look in section
- 144110: Insert into statement sub-option from the Copy results as options under the rightclick context menu of the Results grid does not escape single quotation marks (') when exporting the date type value
- 146379: Auto-complete hint list does not show the column list of tables after the Openjson function
- 150182: Server Management Studio stops working when a large result set with more than 1,200,000 rows is searched using the Results search feature

- 153186: Context menu of SQL Server Management Studio's Object Explorer needs about 10 seconds to appear and causes the host application to hang when a user has db_datareader and db_datawriter database permissions only
- 153951: SQL code competition doesn't work with SQL files that are coming from within a solution in Solution Explorer
- 156946: SQL Server Management Studio freezes up to a minute when the Linked server credentials window is shown in the query editor
- 161458: SQL Server Management Studio stops working when a new query is opened if the connection is established to an Azure instance using the Active Directory Universal with MFA support authentication method
- 161827: Query tabs are not restored on SQL Server Management Studio 2014 startup from the point when they have been saved using the Save workspace option
- 165808: Host application freezes when a table that does not exist in a database is specified in the Insert statement
- 166507: Performance degradation of 50% in processing typed characters when the .sql file location is on a network drive
- 166664: Auto-complete hint list is positioned incorrectly when the cursor is near the bottom of the query editor
- 168851: Auto-complete generates invalid syntax when a column is selected from the list of suggestions in the Create index statement
- 181162: Send anonymous usage statistics option is saved when checked and discard by clicking the Cancel button in the Options window
- 188582: SQL Server Management Studio stops working when the Edit and Delete buttons are clicked randomly in the Auto-replacement window
- 188918: Go to object feature does not query the selected database from either Object Explorer or Available Databases drop-down menu when a database for the connection is set to any database other than the default under connection properties
- 200849: The right-click context menu of Object Explorer has a delay of about 6 seconds when connected to an SQL Server instance using any of the Azure Active Directory authentication methods
- 193835: "Delete statement without a Where clause" built-in execution alert is triggered even though there is the Where clause in the Delete statement
- 193838: Execution alert conditions are not being saved after either SQL Server Management Studio or Visual Studio restart
- 194773: Auto-complete hint list does not show column suggestions after the Where clause when querying table containing a special character in its name
- 93604: Auto-complete hint list does not show context-sensitive hints after the Join keyword when used after the Cross join statement

Changes:

- Executed queries feature has been renamed to Query history
- Log executed queries option has been renamed to Log ran queries

Release: 2021.01.0608
Date: November 02, 2020

Changes:

- The application is now part of the ApexSQL Fundamentals Toolkit for SQL Server bundle and requires activation.

Release: 2020.03.0601
Date: October 20, 2020

Fixes:

- 193844: Performance deterioration in processing typed characters speed when using the auto-complete feature on a remote SQL Server

Release: 2020.02.0600
Date: October 08, 2020

Fixes:

- 188619: SQL Server Management Studio stops working when joining a temporary table to another regular table in the Select statement from the hint-list of suggestions
- 164702: The toolbar remains in both SQL Server Management Studio version 2012 and 2014 after the add-in has been uninstalled

Changes:

- [Error handling and send logs functionality has been modified](#)

Release: 2020.01.0570
Date: May 28, 2020

Enhancements:

- [Application telemetry now collects anonymous data on the use and performance of applications and application component](#)
- [ApexSQL Updater is added for configuring advanced updating settings of all installed ApexSQL products](#)

Fixes:

- "System.IndexOutOfRangeException" error is encountered when the Hint-list feature is used on the SQL Server 2008 R2 version

- Data from the Results panel of the executed Select query with the Cast function is dropped from the column in the exported Excel sheet
- Date column under the list of the Executed queries window is missing the timestamp when the query was executed
- Export to Excel feature does not export the Null value from columns correctly for some built-in data types
- Font weight of the tab in use loses bold when either selected portion of the code or entire code in query editor is executed
- SQL auto-complete inserts invalid code from the Select query with the Join clause when the Insert column owner option is disabled from the Inserts tab of the Options window
- SQL Server Management Studio stops working when trying to use the hint-list feature without permissions to access the master database

Release: 2019.01.0553

Date: October 4, 2019

Enhancements:

- [Active Directory – Integrated authentication support](#)
- Current statement execution option is added under the right-click context menu of Query Editor
- Enclose identifiers within square brackets option is added under the CRUD submenus of the Options window

Fixes:

- "Error generating CRUD procedures" error is encountered when the Create CRUD procedures command is used from Object Explorer on a database which contains one or more tables without a primary key
- "Error navigating to node" error is encountered when the Navigate to object command is used on a column name in a Select statement from the right-click context menu in the query editor
- "No data to export" message is shown when the Export to Excel button is clicked on a very large query result set
- Export to Excel removes decimal points with numeric data types for the European convention where the dot is the thousands separator and the comma is the decimal separator
- Host application freezes for a few seconds when a database context is specified to a database name that does not exist on a connected SQL Server
- "Object reference not set to an instance of an object" error is encountered when the Options command is used from add-in main menu in Visual Studio 2019
- Object script preview window is unusable on high DPI and 4K resolution
- Scrolling down the list of suggestion in order to view the remaining columns using either mouse wheel or clicking the lower right tiny triangle does not work properly
- SQL auto-complete does not show database objects within either the Create or Alter procedure statement
- SQL auto-complete does not show the list of suggestions after the Isnull function in the Select statement

- SQL auto-complete does not show variables that have been declared and used in a Select statement within the Between operator after And keyword
- SQL auto-complete inserts objects incorrectly when the Format keywords option under General tab of Options window is set to the Proper capitalization value
- SQL auto-complete removes database name from the statement when a table from a different database is selected from the hint-list
- SQL Server Management Studio stops working when code of a query is copied to the clipboard from the Executed queries dialog and the Escape key is pressed to close the dialog
- Tab coloring function loses bold effect when switched to another application and back to host application
- The add-in toolbar disappears when a solution is closed in SQL Server Management Studio 2014
- The application does not integrate into Visual Studio 2017 Community version, even though it was selected during the installation process
- The application shortcut settings are not fully visible under the Shortcuts tab of the Options window on high DPI and 4K resolution
- The application tab navigation settings are not fully visible under the Tab navigation tab of the Options window on high DPI and 4K resolution
- The Availability Database drop-down box cannot be highlighted when Ctrl + U keyboard shortcut is used within SQL Server Management Studio 2016 and higher
- The context menu has a 3 seconds delay until is displayed when right-click is used on a trigger in Object Explorer
- The money data type is exported as a date format in Excel sheet when the numbers from the query results set are with a decimal symbol
- Visual Studio 2019 stops working when a new query editor is opened

Release: 2018.10.0519

Date: June 21, 2019

Changes:

- Software Transaction Agreement is added as a new step in the installation wizard and updated in accordance with <https://www.quest.com/legal/sta.aspx>

Release: 2018.10.0516

Date: May 04, 2019

Fixes:

- SQL Server Management Studio stops working after the Linked dialog is shown
- The add-in doesn't integrate with SQL Server Management Studio 18 GA version
- The add-in doesn't work in Visual Studio 2017

Release: 2018.09.0513

Date: February 08, 2019

Fixes:

- A custom execution alert for the Alter statement cannot be configured using the options in the New alert dialog
- The application installer does not check if the .NET Framework 4.7.2 is installed on the operating system
- Usage of the '%PROMPT%' macro variable in a snippet generates two empty lines in the output script

Changes:

- ApexSQL parent menu of the add-in is now located under the Extensions main menu in Visual Studio 2019

Release: 2018.08.0512

Date: December 24, 2018

Enhancements:

- [Visual Studio 2019 integration support](#)

Fixes:

- The hint-list inserts the full column path after the Where clause when the 'at' table alias is used
- Tab coloring feature makes it hard to distinguish the currently active tab from other tabs when multiple tabs are opened side-by-side on the same environment

Changes:

- The application now requires Microsoft .NET Framework 4.7.2

Release: 2018.07.0510

Date: November 20, 2018

Fixes:

- Check for updates on startup option in the available updates dialog is not saved when unchecked
- The names of the hosts in the host integration step are cutoff on high DPI and 4K resolution
- SQL Server Management Studio stops working after connecting to a SQL Server Analysis Services instance
- SQL Server Management Studio stops working after connecting to a SQL Server Reporting Services instance
- The "The ApexSQL Complete _Inst Package" package has not loaded correctly" warning message appears when launching SQL Server Management Studio 18 preview

Release: 2018.06.0505

Date: October 08, 2018

Enhancements:

- Alter object scripting
- [Improved application installer with a dark theme](#)
- [New application icon](#)
- [New error handling and send logs functionality](#)
- SQL Server 2019 CTP 2.0 support
- [SQL Server Management Studio 18 integration support](#)

Fixes:

- “Couldn't locate this type of object or this object doesn't exist in the currently connected database. Check if this type of object is included for display in the hint-list” error is encountered when the Code structure window is active and the “Navigate to object” command is used from the right-click context menu in query editor
- “Create CRUD procedures” command omits square brackets in the generated script when used on an object from Object Explorer
- “Error navigating to node” message is shown when double-clicking a temporal history table in Go to object window to navigate to object in Object Explorer
- “Error navigating to node” message is shown when the “Navigate to object” command is used on a Temporal (History) table which has underscore (_) in its name from the query editor
- “No matches are found” message is shown when “Matching type:” radio button is set to “Regular expressions” option and the Highlight all button is clicked in the Results search dialog
- Auto-complete is sometimes disabled on startup in SQL Server Management Studio
- In the “Look in:” drop-down box of the Results search window the “Current results grid” option is not selected by default
- Missing icons for all object types in the hint-list on high DPI and 4K resolution
- Missing the “Go to object” command in the right-click context menu under the Go to object dialog
- SQL Server Management Studio 17.8 stops working when the Where clause is used in a Select statement and the connection is established to an Azure SQL Database
- SQL Server Management Studio/Visual Studio stops working when the Left join keyword is used to a linked server as the cross reference in the Select statement
- SQL Server Management Studio/Visual Studio stops working when the “Navigate to object” command is used and the user is connected to Azure SQL database via Active Directory - Password authentication
- The application executable installer does not detect that Visual Studio 2017 is running in the background
- The Executed queries feature does not log a query that was executed using the “Select Top X Rows” command from the right-click context menu in Object Explorer
- The execution alert prompt dialog is unusable on high DPI and 4K resolution
- The hint-list runs in the background when called using the Ctrl+Shift+Alt+N key combination from the keyboard to insert a snippet and the query editor tab is floated

- The object tooltip does not show all parameters for objects with more than 5 on mouse over in the query editor
- The Result search window does not close when the Esc key is pressed from the keyboard
- The SQL Server Management Studio is switched to another random running application when the Results search dialog is closed
- The SQL Translate function does not appear in the hint-list on SQL Server 2017

Release: 2018.05.0478

Date: June 27, 2018

Enhancements:

- Full support for Azure SQL Database

Fixes:

- Tabs are restored upon SQL Server Management Studio startup from a point when they have been saved using the "Save workspace" command even though the "Restore tabs at startup from" option is disabled in the Options dialog
- The "The file has unsaved changes inside this editor and has been changed externally" message is encountered when there are two query editors with the same name and the "Automatic tab renaming" option, under the General tab of the Options dialog, is enabled
- The "Insert into statement" option doesn't escape apostrophes for a string copied from the Results grid
- The Connect to Database Engine error message box appears when the Create CRUD procedure command is used and the connection is established to an Azure SQL Database using the Active Directory - Password authentication
- The data types do not appear in the hint-list suggestions when variables are declared in a Create or alter statement
- The drop table execution alert rule is shown when the Drop database statement is used to delete a database from an instance of SQL Server
- The drop table execution alert rule is shown when the Drop index statement is used to delete an index in a table
- The Navigate to object feature does not work when the Active Directory - Password authentication is used
- The SQL:
 - column master key, algorithm, encrypted value keys,
 - columnstore archive compression,
 - compress all row groups,
 - concat ws function,
 - edition, size and service objective,
 - endpoint,
 - external library,
 - format type,
 - graph options,

- key store provider name and key path,
- location and resource manager location,
- query store,
- resumable index rebuild,
- scoped configuration key,
- scoped credential key,
- security policy,
- string agg function,
- trim function,
- wait at low priority do not appear in the hint-list

Release: 2018.04.0465

Date: May 29, 2018

Enhancements:

- Active Directory – Password authentication support

Fixes:

- SQL Server Management Studio stops working when the connection is established to an Azure SQL Database and the "Show object script" option under the General tab of the Options dialog is enabled
- The search result in the code section of the Tab navigation window is not highlighted when the Enter key from the keyboard is pressed
- The Code structure window does not appear when is for the second time launched from main menu
- The search result in the code section of the Executed queries dialog is not highlighted when the Search button is pressed
- The Copy button on the Object script dialog does not work

Release: 2018.03.0450

Date: May 15, 2018

Enhancements:

- The time for first appearance of the auto-complete hint-list has been improved by up to 80%

Fixes:

- "No data to export" message is shown when the Export to Excel command is used and columns order is changed in the Result grid of a query
- "No data to export" message is shown when the Export to Excel command is used and the Result grid of a query contains a cell of nvarchar type with more than 32,767 characters
- SQL Server Management Studio 2012/2014 stops working when a new query is opened and the Databases folder is expanded in the Object Explorer

- The column list of a table is not fully visible in the hint-list when expanded and the table has more than 19 columns
- The execution alert rule is omitted if it is not selected (highlighted) in the list of rules under the Execution alerts tab of the Option dialog
- The hint-list does not show up if the host application is the German localized version
- Query editor tab caption is barely visible when database connection color is set to a darker shade under the Tab coloring tab of the Options dialog

Release: 2018.02.0426

Date: January 25, 2018

Fixes:

- The "Error opening Options2 form" error message is encountered when closing the Options dialog and a query editor is disconnected
- The "No data to export" error message is encountered when Export to Excel command is used and Results grid has valid data
- The add-in icons disappear in SQL Server Management Studio 2012 and 2014 when installed in parallel with any other ApexSQL add-in product released after January 22, 2018
- The Close button in the Code description window does not work
- The Code description window shows incorrect data about an object
- The object owner of the column does not appear in the hint-list suggestions

Release: 2018.01.0420

Date: December 29, 2017

Enhancements:

- [High DPI and 4K resolution support](#)
- [Applied concepts of Visual Language Dictionary for Visual Studio for iconography, imagery, colors, menus, fonts, formatting and other GUI elements](#)
- Auto-complete hints list appearing time has been improved by up to 100%
- The time for first appearance of the auto-complete hint-list has been improved by up to 280%

Fixes:

- All execution alert rules are deleted from the list when only one is selected and the Delete button is clicked under the Execution alerts tab of the Options dialog
- Double left-click between the Name and Owner columns header in the Go to object dialog selects the object in Object Explorer that is selected in the list
- Double left-click between the Owner and Type columns header in the Go to object dialog selects the object in Object Explorer that is selected in the list
- Double left-click on the columns header in the Executed queries dialog opens three new query editor tabs
- Execution alert does not prevent execution of a query that contains the Drop table statement

- SQL Server Management Studio 2014 stops working when the Top expression is used in a Select statement
- SQL Server Management Studio stops working when the CAST function is used in a Select statement
- SQL Server Management Studio stops working when a linked server table is used in an Inner join statement
- SQL Server Management Studio stops working when in the Look in drop-down box is selected the Current results grid value and the value in the Search term box is 1 in the Results grid dialog when the Results grid is empty
- SQL Server Management Studio stops working when an invalid database name is used in a Use statement
- SQL Server Management Studio stops working when scrolling through the hint-list if the current Windows account is configured as a Standard user
- SQL Server Management Studio stops working when selecting objects from the hint-list in a SQL script that has over 10.000 lines of code
- SQL Server Management Studio stops working when the Decrypt encrypted objects check-box is checked under the General tab of the Options dialog and there are more than one cached databases
- SQL Server Management Studio stops working when the Show object script check box in the General tab of the Options dialog is checked
- SQL Server Management Studio stops working when the hint-list appears while editing list of columns in a Select statement
- Table names are not inserted correctly if columns from different tables are checked in the hint list
- The ApexSQL defaults, My defaults, and Save as my defaults buttons are hidden until scrolled all the way down under the Inserts tab of the Options dialog
- The Options dialog takes 8 seconds to appear when the Options command is clicked from the add-in main menu
- The code preview is changed for the selected query when the list of executed queries is ordered by any of the columns in the Executed queries dialog
- The hint-list disappears when second character is typed in the query editor
- The number of found matches in the Results search dialog does not meet search criteria for the “Current results grid selection” and “Match whole cell content” options
- The leading zero in a value is dropped when exporting 'varchar' data type from Results grid to an Excel document
- The hint-list disappears when the right arrow key is pressed to expand the table’s columns list for the first table in the list
- The Export to Excel command generates a file with incorrect column names after the 10th column
- The hint-list shows two same table names in the same color of which one is an existing table and the other is from a Create statement inside the query
- “Drag a column header here to group by that column” option does not work under Schema cache tab of the Options dialog

Changes:

- The application now requires Microsoft .NET Framework 4.7.1

About us

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.

Contacting Quest

For sales or other inquiries, visit www.quest.com/contact

Technical Support Resources

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.

© 2021 Quest Software Inc.

ALL RIGHTS RESERVED.

This guide contains proprietary information protected by copyright. The software described in this guide is furnished under a software license or nondisclosure agreement. This software may be used or copied only in accordance with the terms of the applicable agreement. No part of this guide may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording for any purpose other than the purchaser's personal use without the written permission of Quest Software Inc.

The information in this document is provided in connection with Quest Software products. No license, express or implied, by estoppel or otherwise, to any intellectual property right is granted by this document or in connection with the sale of Quest Software products. EXCEPT AS SET FORTH IN THE TERMS AND CONDITIONS AS SPECIFIED IN THE LICENSE AGREEMENT FOR THIS PRODUCT, QUEST SOFTWARE ASSUMES NO LIABILITY WHATSOEVER AND DISCLAIMS ANY EXPRESS, IMPLIED OR STATUTORY WARRANTY RELATING TO ITS PRODUCTS INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. IN NO EVENT SHALL QUEST SOFTWARE BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION OR LOSS OF INFORMATION) ARISING OUT OF THE USE OR INABILITY TO USE THIS DOCUMENT, EVEN IF QUEST SOFTWARE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Quest Software makes no representations or warranties with respect to the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. Quest Software does not make any commitment to update the information contained in this document.

If you have any questions regarding your potential use of this material, contact:

Quest Software Inc.

Attn: LEGAL Dept

4 Polaris Way

Aliso Viejo, CA 92656

Refer to our Web site (<https://www.quest.com>) for regional and international office information.

Patents

Quest Software is proud of our advanced technology. Patents and pending patents may apply to this product. For the most current information about applicable patents for this product, please visit our website at <https://www.quest.com/legal>.

Trademarks

Quest, the Quest logo, and Join the Innovation are trademarks and registered trademarks of Quest Software Inc. For a complete list of Quest marks, visit <https://www.quest.com/legal/trademark-information.aspx>. All other trademarks and registered trademarks are property of their respective owners.

Legend

 **CAUTION:** A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.

 **IMPORTANT, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.