ApexSQL Plan

Version 2018.x

Release Notes and Requirements

System requirements

Hardware	Dual Core 2.0 GHz CPU 4 GB memory 163 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	Windows user account with administrative privileges See Minimum permissions required to install and use ApexSQL products See Minimum SQL Server permissions for ApexSQL Developer tools See Remote access for SQL Server instance

[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 Software

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]									
						2017		2019 CTP 3	
	2005	2008	2012	2014	2016	Windows	Linux [3]	Windows	Linux [3]
[ApexSQL Plan](#)	✓	✓	✓	✓	✓	✓	✓	✓	✓

SQL Server edition [4]						
				Azure SQL Database		Amazon RDS for SQL Server
	Express	Standard	Enterprise	Single Database, Elastic Pool	Managed Instance	
[ApexSQL Plan](#)	✓	✓	✓	✓	✓	✓

Visual Studio add-in integration

	2010	2012	2013	2015	2017	2019
ApexSQL Plan	✓	✓	✓	✓	✓	✓

SQL Server Management Studio add-in integration

	2012	2014	2016	17	18
ApexSQL Plan	✓	✓	✓	✓	✓

[3] Tested on Ubuntu 16.04

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

Getting Started

For further information about installation and getting started, please check the Quest Knowledge Base or ApexSQL Getting Started.

Release Notes (release history)

Release:	2018.08.0287
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:	2018.08.0284
Date:	May 09, 2019

Enhancements:

- Visual Studio integration support

Fixes:

- The add-in doesn't integrate with SQL Server Management Studio 18 GA version
- "ApexSQLxxx_InstPackage" warning message appears when starting SSMS 18 while different ApexSQL add-ins are installed
- Application stops responding when generating plan for specific database build scripts
- Application becomes unresponsive after scrolling through specific large SQL scripts
- Deadlock viewer does not display multiple owner modes between different nodes
- The paste option is disabled in the right click context menu when new query editor is opened
- Buttons in the Stored procedure ribbon bar can be activated with mouse right click
- Missing scrollbar in the discovered server list of the database connection dialogue
- Listed child items are highlighted in Operations tree tab
- "There are no execution results for select statement" message is shown under the Executions results tab of the Management ribbon bar when the USE statement is used for the second time in a batch

Changes:

- Execution plan tab now displays the information that the query plan for the selected statement type does not exist

Release:	2018.07.0228
Date:	February 07, 2019

Enhancements:

- "Batch mode on RowStore" property added in Properties pane of Execution plan view
- Duration time property for every operation added in Execution plan view
- Percentage of accuracy between Actual and Estimated rows for data flow and operation data property added in Execution plan view
- Support added for displaying victimless deadlocks in Deadlock view

Fixes:

- "File content doesn't confirm deadlock file format. An item with the same key has already been added" error message encountered when opening deadlock file for some cases
- "File content doesn't confirm deadlock file format" error message encountered when opening deadlock file for some cases
- "File content doesn't confirm deadlock file format. There is an error in XML document (1,1). Root element is missing" error message encountered when opening deadlock file for some cases

- "File content doesn't confirm deadlock file format. There is an error in XML document (1,1). Data at the root level is invalid. Line 1, position 1" error message encountered when opening deadlock file for some cases
- "Runtime Error (at 160:374): Internal error: ExtractTemporaryFile: The file "NDP471-KB4033344-Web.exe" was not found." error is encountered when starting .NET Framework 4.7.2 installation from application installer

Release:	2018.06.0200
Date:	December 18, 2018

Enhancements:

- Undo action is added in the context menu when remove row action is performed in the tabs containing rows with analytical data
- Lazy profile data can now be exported to HTML
- A control button for minimizing and restoring the main ribbon menu is added
- History tab item can now be removed by using the Delete key
- Smoother timeline control slider in the Live query execution view

Fixes:

- Select boxes in the installation wizard can be checked when hovering the cursor away from options in the horizontal line
- An error message is encountered during the application installation if the application is running in the background
- Missing Help button on the Query store window
- An insecure link in the tooltip for the ASYNC Network IO Wait type
- Incorrect highlighting of control buttons in execution plan and join graph tabs when the application is set to the dark theme
- The query text editor is not in focus when a new query session is created
- Plotted data is visible in the Top 10 longest wait types graph section when the Query store is not started
- Duplicate error message is shown in the error list tab when clicked on a single existing error message
- Low visibility of row values when placed under the arrow headed flow lines in the Execution plan diagram
- Missing application name in the title for the dialog with an execution process indicator
- The application does not support minimal 800x600 display resolution
- Option items are not aligned in the Layout and colors tab of the Options menu
- Row item in the Execution plan history pane gets selected when using right-click on the item
- Incomplete information within the tooltip for the header options under the Export tab of the Options dialog
- The application can be installed without warning that SQL Server Management Studio host is running in the background

- Missing costs info tooltip for the medium severity cost icon located next to a nod for the collapsed branch of the query plan diagram

Changes:

- The application now requires Microsoft .NET framework 4.7.2
- System procedures syntax color in the query editor for dark theme
- Actual and Estimate data in execution plan node in Properties and Operations tree tabs are now grouped in separate expandable nodes
- Inactive Query text tab button in management tab of the main ribbon menu is removed when plan comparison and query parameters views are shown
- Expand/Collapse commands are removed from execution plan diagram context menu when not available
- Export diagram option form the Dashboard context menu is renamed to Save diagram
- Scrollbars in execution plan Customization and Properties panes are removed
- Visible grey background when generating an execution plan is now removed
- Syntax color in XML view tab is changed
- Color of the tab outlines is changed for the dark theme
- Removed "Exploring Low Priority Lock Wait Options" link used in Additional research section for LCK_M_SCH_S_ABORT_BLOCKERS Wait type
- Warning type message is replaced with an information type message when starting the Query store on SQL Server

Release:	2018.05.0182
Date:	November 22, 2018

Enhancements:

- [SQL Server Management Studio 18 integration support](#)
- SQL Server 2019 CTP 2.0 support

Release:	2018.04.0179
Date:	September 26, 2018

Enhancements:

- Execution diagrams are generated up to 50% faster
- [Active Directory – Password and Integrated authentication support](#)
- [New error handling and send logs functionality](#)
- [Improved application installer with a dark theme](#)
- [New application icon](#)

Fixes:

- Application main window remains disabled when restoring from taskbar after switching to another application but the Query store connection window remains active
- Wrong query text formatting when importing XML query plan with multiple statements saved from SQL Server Management Studio
- Query store window remains disabled when switched to and the Wait type tooltip remained opened in the main application window
- Error list in the query text shows up when the execution plan is opened from the SQL Server Management Studio
- „Incorrect syntax" error occurs in the Error list when some correct queries are inserted in the Query text tab
- View query text in new tab option displays blank screen when one of the compared plan diagrams is shown in full screen mode
- "Unable to cast object of type 'MS.Internal.NamedObject' to type 'ApexSQL.ExecutionPlanModel.NodeViewModel'" error is encountered when using node selection after one of the compared plan diagrams was in full screen mode then restored
- Execution results panel does not show any execution results for the selected statement with the "Checkpoint" used in the query when the actual plan is generated
- Selected row in the Execution results tab does not get removed when using the "Remove row" option from the context menu
- Application error is encountered when using right-click on the Execution plan history item after changing some code in the "Query text" editor
- Application error is encountered when "Create missing index" button is used in the Query cost section after an empty query was executed
- Application error is encountered when executing the same query two times and an element in the "Execution plan" diagram was selected after the first execution
- Application error is encountered when invoking the Open window from the Home section of the main ribbon menu after using a removable media for the file Save/Open in previous session
- The "Open in ApexSQL Plan" option from SQL Server Management Studio add-in is not initiating, if one instance of application is already opened
- The Dashboard chart lines have multiple values at the same time point
- Long statements are truncated when opened from the query store

Release:	2018.03.0163
Date:	April 05, 2018

Enhancements:

- Open Query Store v2.3.1 support
- High DPI and 4K resolution support

Fixes:

- "System.NullReferenceException" message is encountered when there are no search results shown in Columns tab
- The installer doesn't recognize already present NET Framework 4.7.1
- The user settings are saved when the Options dialog is closed by Esc button on the keyboard
- The application stops working when the search option is used in the Execution results tab
- "No email client found and/or the application logs are too big (>5MB)" message is encountered when the Send logs button is clicked, even though there is an e-mail client installed and the log file is smaller than 5 MB
- "System.Reflection.TargetInvocationException" message is encountered when the commands for comparison plans from the context menu are used under the Execution plan grid and there is no execution plan shown
- "Provide value on 'System.Windows.StatisResourceExtension' threw an exception." message is encountered when the Send logs command is clicked in SQL Server Management Studio 2016 or 17 and no email client is set up on a machine

Changes:

- Global results analysis options from the bottom of the application are now in the Management and Stored procedure main ribbon tabs
- The alert icons now indicate cost thresholds instead of visual per-node operator cost highlights
- Changing the metric used to display CPU and I/O resource costs on the operation icons has been deprecated and the information is now available in operation cost tooltips
- Changing connection thickness according to row and data size has been deprecated and the connection thickness now represents estimated or actual number of rows

Release:	2018.02.0140
Date:	March 8, 2018

Enhancements:

- Graphical execution plans:
    - Dashboard intervals selection
- Query execution plan analysis:
    - XML view
    - Showplan node search
    - Execution plan comparison
    - Execution plan status bar
    - Results for actual execution plan
    - Viewing execution plans in Query store and Query performance tabs
- Other:

- Missing index creation
- Recently used file list
- Grid and execution plan nodes search option
- Query code errors tab
- Wait times descriptions
- Keyboard shortcuts
  - (Ctrl+N) shortcut can be used to start a new, empty session with a new connection
  - (Ctrl+Q) shortcut can be used to start a new, empty session with the current connection
  - (Ctrl+O) shortcut can be used to open a file in a new session
  - (Ctrl+S) shortcut can be used to save a session (prompt for a filename if this is a new session) shortcut can be used
  - (Ctrl+Shift+A) shortcut can be used to save a session as a new filename
  - (Ctrl+Shift+S) shortcut can be used to save all sessions
  - (Ctrl+U) shortcut can be used to change database connection
  - (Ctrl+L) shortcut can be used to display an estimated execution plan
  - (Ctrl+M) shortcut can be used to display an actual execution plan
  - (Ctrl+F4) shortcut can be used to close a session
  - (Shift+Alt+Enter) shortcut can be used toggle full screen (also Esc to exit full screen)

Fixes:

- "Unable to cast object of type 'System.Windows.Media.Color' to type 'System.Windows.Media.Brush'"" message is shown and the application stops working in specific cases
- The "Execution failed: Reason: The ConnectionString property has not been initialized" message is encountered when any execution plan button is clicked and the connection is not already established with SQL Server Query Store
- The "The key is not present in the dictionary" error message is encountered when executing the Actual or Live execution plan on a machine with less than 4GB of RAM memory

Release:	2018.01.0133
Date:	February 6, 2018

Enhancements:

- Open Query Store v2.1.0 support
- SQL Server 2017 plan full support:
  - Batch Hash Table Build
  - Clustered Index Merge
  - Columnstore Index Delete
  - Columnstore Index Insert

- o Columnstore Index Merge
- o Columnstore Index Scan
- o Columnstore Index Update
- o Foreign Key References Check
- o Generic
- o Print
- o Put
- o Rank

Fixes:

- An empty Query performance tab is opened instead of the Database connection window when there is no an active connection to a database and the Performance button is clicked
- The Database connection window shows the "Loading..." indicator instead of "Connecting..." when the OK button is clicked to connect to a database
- The Save as window selects an inappropriate file type under the Save as type drop-down list by default when the Save/Save as button is used
- Approximately 45% of the data is missing when a session is saved to an execution plan (*.axep) file format and later opened from the application
- Saving a session as the execution plan (*.axep) file stores SQL Server connection credentials in plain text
- "Provide value on 'System.Windows.StatisResourceExtension' threw an exception" message is shown when the Send logs button is clicked
- The values in the Actual row, Reads, Start time, End time, Duration columns under the Statements grid are not shown when the actual execution plan is used
- The application shows incorrect names for the wait types in the Waits time grid
- The default value in the Execution timeout box under the Connection options dialog is wrong
- 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

Changes:

- The application now requires Microsoft .NET Framework 4.7.1
- SQL syntax highlighting is modified on dark theme