ApexSQL® Build 2022.x

Release Notes

These release notes provide information about the ApexSQL® Build 2022.x which is a major release.

Topics:

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About ApexSQL Build

ApexSQL Build is a SQL database deployment tool that builds new databases and updates existing ones by packaging SQL scripts, SQL script folders, database snapshots, and scripts under version control into a single deployment SQL script, a C# solution, or an executable installer. It allows specifying the objects to be created or updated, ensures error-free deployment, and more.

New Features

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

Fixes:

- 209522: "Partition column 'column_name' has data type data_type1_name which is different from the partition function 'partition_function_name' parameter data type data_type2_name" error is encountered when building a database where the partition function parameter and partition column have different data types
- 206490: "Invalid partition scheme specified" error is encountered when trying to build database which contains partition schema
- 211134: "You can only create a user with a password in a contained database" error is encountered when trying to create a contained database which is linked on the Git repository

Changes:

- The activation model is switched to Subscription
- Trust server certificate option is added under the Connection options dialog

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.

System requirements

Hardware	Dual Core 2.0 GHz CPU 3 GB memory 133 MB disk space
SQL Server	SQL Server 2005 and higher [1] Azure SQL Database [1] Amazon RDS for SQL Server [1]
OS	Windows 7 SP1/Windows Server 2008 R2 SP1 and higher [1]

Software	.NET Framework 4.7.2 or higher
Note	Source control integration available for Azure DevOps [4], Git [5], Mercurial [5], Subversion [5] and Perforce [5]
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

[4] Azure DevOps Server (TFS) [5] / Azure DevOps Services

[5] Up to the latest version

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 [3]									
						2017		2019 CTP 3	
	2005	2008	2012	2014	2016	Windows	Linux [2]	Windows	Linux [2]
ApexSQL Build	✔	✔	✔	✔	✔	✔	✔	✔	✔

SQL Server edition [3]						
				Azure SQL Database		Amazon RDS for SQL Server
	Express	Standard	Enterprise	Single Database, Elastic Pool	Managed Instance	
ApexSQL Build	✓	✓	✓	✓		✓

Source control systems					
	Azure DevOps [4]	Git [5]	Mercurial [5]	Perforce [5]	Subversion [5]
ApexSQL Build	✓	✓	✓	✓	✓

[2] Tested on Ubuntu 16.04

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

[4] Azure DevOps Server (TFS) [5] / Azure DevOps Services

[5] Up to the latest version

Release History (release notes)

Release:	2022.01.0358
Date:	October 10, 2022

Fixes:

- 209522: "Partition column 'column_name' has data type data_type1_name which is different from the partition function 'partition_function_name' parameter data type data_type2_name" error is encountered when building a database where the partition function parameter and partition column have different data types
- 206490: "Invalid partition scheme specified" error is encountered when trying to build database which contains partition schema
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Changes:

- The activation model is switched to Subscription
- Trust server certificate option is added under the Connection options dialog

Release:	2021.01.0345
Date:	April 12, 2021

Enhancements:

- Application telemetry now collects anonymous data on the use and performance of applications and application components
- ApexSQL Updater is added for configuring advanced updating settings of all installed ApexSQL products

Fixes:

- 195016: Static data is not inserted into the newly created database when the Git repository is used as an input source
- 195015: ''The INSERT statement conflicted with the FOREIGN KEY constraint'' error is encountered when inserting static data starts for the Git repository as an input source when using the CLI
- 194830: ''Could not load file or assembly 'SharpSvn' or one of its dependencies. An attempt was made to load a program with an incorrect format'' error is encountered when setting up the Subversion repository as an input source
- 159087: "Could not load file or assembly" error is encountered when the Browse, Test, or Finish button is clicked in the Source control wizard for the Subversion source control repository
- 179048: Static data is not being read from a database code hosted on the Azure DevOps server when setting up the Team Foundation Server repository as a source
- 195139: ''TFS server has more than one collection. Specify concrete collection via URL'' error is encountered when building a database via CLI from Azure DevOps Server repository
- 194973: ''Cannot connect this repository to '' error is encountered when using the CLI to build a database from the Mercurial source control repository
- 121767: Neither schema nor data are created when building a database from the Subversion source control repository from the CLI
- 127318: "StartIndex cannot be less than zero" error is encountered when applying source control options in the CLI and the Mercurial repository is used as the input source
- 146791: "Cannot set local path %path%". "The path %path% is already mapped in workspace" error is encountered when the Team Foundation Server repository hosted on Azure DevOps Server is used as a source
- 159657: "Make a sure correct username and password are specified" error is encountered when connecting to the Git source control repository hosted on Azure DevOps Server
- 170336: "Make a sure correct username and password are specified" message is shown when the Git source control password is changed in the host and updated in the application connection configuration

- 187455: Empty project is saved when the Save as button is clicked after the Finish button is clicked in the last step• 119403: The corresponding CLI switches are not shown in the Save as a batch window when the Consolidate scripts action is used
- 118745: "The ALTER TABLE statement conflicted with the FOREIGN KEY constraint" error is encountered when inserting data from the Mercurial source control repository to a built database from the CLI
- 127337: Missing the Insert into statements in the saved build script for inserting static data when a source control repository is used as a input source
- 203849: Procedures that contain the With results sets command are not loaded in the Build objects step when using a script folder or source control as an input source
- 203065: Default Filestream filegroups are incorrectly scripted without the Contains filestream clause during the build process
- 198051: "Default FILESTREAM filegroup is not available in database" error is encountered when a build script including SQL tables with FILESTREAM is run
- 187453: Partition schemas are incorrectly scripted as filegroups in the build process
- 189904: Data compressed tables are incorrectly scripted as partitioned tables in the build process

Changes:

- ApexSQL defaults, My defaults, and Save as my defaults functionality has been modified

Release:	2019.03.0322
Date:	July 30, 2020

Fixes:

- The Error handling option under the Package tab in the Output options step is not saved when an executable installer is created
- "Could not find file .dat" error is encountered when the Edit existing database option is used in a created executable installer and the Run button is clicked
- "Parameter or variable has an invalid type" error is encountered when the building process is started using a scripts folder as the Input source
- "Cannot find data type < table_name > " error is encountered when building a SQL database from a scripts folder
- "Could not load file or assembly" error is encountered when linking to the Git repository hosted on Azure DevOps Services using visualstudio.com URL

Changes:

- Error handling and send logs functionality has been modified

Release:	2019.02.0311

Date: March 13, 2020

Enhancements:

- Custom filegroups are now created immediately after the database is created

Fixes:

- "Object ApexSql.Common.ScriptMetadata.Internal.Enums.SqlTypes [sys].[TT_Tax_Delta_0] is ignored: object already exists" error is encountered when multiple data type objects with same name that belong to different schemas exist in a script folder
- Generated build script does not contain statements to create data types when multiple data type objects with same name that belong to different schemas exist in a script folder
- The install confirmation message box appears when the /verysilent and /suppressmsgboxes options from CLI are used

Release: 2019.01.0304

Date: December 23, 2019

Enhancements:

- SQL Sever 2019 support

Fixes:

- "Inserting static data completed" message is shown even after static data update execution failed when invalid static data scripts are used as source
- SQL views are created before SQL queues when using the Build process and deploying directly into a SQL database

Release: 2018.05.0227

Date: November 04, 2019

Enhancements:

- Active Directory support for:
  o Password authentication
  o Integrated authentication
  o Universal with MFA support authentication

Fixes:

- A role is created before a user in a build script when the sp_addrolemember system procedure is used with compatibility level SQL Server 2005 or 2008

- The /script_filegroups switch is not working when it's used in the CLI execution
- Dependencies are duplicated in the Preview step when the Previous button is clicked and then the Next button during the Build process
- Missing Drop and Create statements in a generated build script for building n Azure SQL Database when the Drop if exists option is checked and the Azure DB compatibility mode option is set
- Change of a build source with the CLI switches is not respected when project file is used for CLI execution
- The Insert static data option is not working when saved in a project file and a source type is changed when it's used int the CLI execution
- "Could not find tablename.zip file" error is encountered when building a SQL database from a script folder with static data included and build is executed in the CLI

Release:	2018.04.0220
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:	2018.04.0211
Date:	February 07, 2019

Fixes:

- "Windows logins are not supported in this version of SQL Server" warning is shown when trying to connect to a server using SQL Server authentication
- The Extend evaluation button does not open default e-mail client when clicked and the application is opened in the Community edition

Changes:

- The application now requires Microsoft .NET framework 4.7.2

Known limitations:

- Neither schema nor data are created when building a database from the Subversion source control repository from the CLI
- "StartIndex cannot be less than zero" error is encountered when applying source control options in the CLI when the Mercurial repository is used as the input source

Release:	2018.03.0208
Date:	December 10, 2018

Enhancements:

- SQL Server 2019 CTP 2.0 support
- New application icon
- New error handling and send logs functionality
- Improved application installer with a dark theme

Fixes:

- The silent installer is stopped when the application needs to automatically download and install .NET Framework, even when the /verysilent switch is used
- "Object reference not set to an instance of an object" error is encountered when any other branch is set, other than the master branch, when source control is set as input source for the Build or Update action

Known limitations:

- Neither schema nor data are created when building a database from the Subversion source control repository from the CLI
- "StartIndex cannot be less than zero" error is encountered when applying source control options in the CLI when the Mercurial repository is used as the input source

Release:	2018.02.0119
Date:	April 16, 2018

Fixes:

- The Get by label option is not working for any of the source control systems and the Get latest option is always used to pull from the source control

Known limitations:

- Neither schema nor data are created when building a database from the Subversion source control repository from the CLI
- "StartIndex cannot be less than zero" error is encountered when applying source control options in the CLI when the Mercurial repository is used as the input source

Release:	2018.01.0116
Date:	February 27, 2018

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

- Insert static data from the Script folder input source
- CLI switches:
  - Optional output elements [/oe]
  - Author [/auth]
  - Legal [/leg]

Fixes:

- "The path is not of a legal form" error is encountered if a valid path from Windows Explorer is copied into the Script Folder input box
- The return code 0 is always shown, even when an issue is encountered during the application execution in the CLI
- "Failed to compare two elements in the array" error is encountered when creating a new database from a snapshot
- "The method or operation is not implemented" error is encountered when the Show patches option is checked in the ApexSQL Build available updates window
- Compatibility mode has a default value SQL 2014, even when neither input nor the previously selected SQL Server includes SQL 2014
- The saved batch file cannot be executed as each generated CLI switch is put in a new row
- The build script cannot be created and saved through the CLI, if the output type is a database
- The Build options and Optional output elements are not generated in the batch script as CLI switches, even though they were checked in the current project
- If all input sources are defined, objects from a snapshot will be loaded even though another input source was selected for the build process
- Missing the prompt message in the installation process that will provide information about older version presence and that it will be uninstalled
- "Bad format of switch: sourcecontrol_type" error is encountered when executing a batch script created from the GUI, when the input source is a Team Foundation Server repository
- The application path disappears in the Save as batch window, when the Output type is changed
- The checked option to save a copy of the build script is not generated as the CLI switch when the Save as batch button is clicked
- "Could not load file or assembly 'NGit" error is encountered when the source control system information are set for the Git repository and then switched to any other source control system
- "Index was out of range. Must be non-negative and less than the size of the collection" error is encountered when the Finish button is clicked in the last step of the Consolidate wizard
- The /verbose and /force CLI switches are duplicated in the Save as batch window when the project file is saved or opened
- The ansi_padding is set to off when building a database from a source control repository, where it was set to on
- The CLI switch for the Compatibility mode option is not generated in the batch script, when the Save as batch window is initiated
- The value set for the Compatibility mode option is not saved and default value is used in the Database options window that's initiated from the Save as batch window

- "None of the targets are working copies" error is encountered when corresponding project structure is not in the root folder of the Subversion source control repository
- Incomplete name and incorrect version for SQL Server Management Studio is shown in the Editor field under the Output options step
- "Could not find file 'C:\Program Files\ApexSQL\ApexSQL Build\FileName.sql'" error is encountered the wrong/non-existing path is entered for the Script input source
- "Index was out of range. Must be non-negative and less than the size of the collection" error is encountered when choosing not to overwrite the existing build script
- "Invoke or BeginInvoke cannot be called on a control until the window handle has been created" error is encountered when the Next button is clicked in the Preview step, when a script file is chosen as input source and a database as an output
- "Source control error: Get by label failed with a message 'None of the targets are working copies'" error is encountered when building a database using the Subversion source control repository as an input in the CLI
- The Recent project list is empty, even after saving several projects
- The /sourcecontrol_branch switch is not shown in the Save as batch window when the Git or Mercurial source control repository is chosen as input source
- The silent installation/update process is interrupted by a Setup installation prompt and is no longer automated
- The /database CLI switch was generated without the database name in the batch script, when the Save as batch button is clicked at the end of the Update database wizard
- The database is not dropped, when the /drop_if_exists switch is used in the CLI
- The license file disappears when virtual machine is stopped and then run on Amazon AWS
- The application repeatedly asks for the activation key when it is started on an Amazon EC2 instance after the virtual machine resources were deallocated and allocated again
- The /out switch is added after the @echo part in the Batch script when the Redirect console output to file option is checked
- "An error occurred while connecting to the source control server https://Server:111/svn/Name//$" error is encountered when the generated batch script is executed and the Subversion source control repository is used as an input source
- The workspace set in the Source control wizard for the Perforce source control repository is not generated under the /sourcecontrol_project CLI switch, under the Save as batch window
- "Index was out of range. Must be non-negative and less than the size of the collection" error is encountered when building a database from an empty Subversion source control repository
- The Build or Update process can be proceeded after the Connect to SQL Server step and to get execution results, even though the connection to SQL Server is not established
- "Invoke or BeginInvoke cannot be called on a control until the window handle has been created" error is encountered when the Next button is clicked in the Preview step during building of a database from a snapshot file
- DefaultDb database name is shown in the Update objects step, even though a different database is chosen for the update process
- The and names are not loaded in the Status bar when the server and database are chosen during the Update database process
- Specified names for the output files in the Save as batch window are not saved in the Batch script

- Static data are not created when building a database from the Subversion source control repository from the GUI
- Errors are shown in the GUI and CLI execution when the Drop if exists option/switch is used for existing database when building a database from any input source
- "Could not find a part of the path 'C:₩...₩Tables₩StaticData₩dbo.TableName[Data].zip'." error is encountered when inserting data from Team Foundation Server repository in the CLI
- Static data are not created when building a database from the Team Foundation Server source control repository from the GUI
- Static data is not shown in the Build wizard, if the current project is edited and a source control repository is chosen as in input source
- SQL Server Management Studio will be used as editor when opening build or update script, even if the integrated editor is chosen as default editor

Changes:

- The application now requires Microsoft .NET framework 4.7.1
- The application has been split into three editions:
    - Community
    - Standard
    - Professional
- New light, blue and dark themes are now available
- SQL Server 2017 version is added in the Compatibility mode drop-down list under the Database options step
- Header options under the Script tab in the Options window are now unchecked by default
- The Comments and Print statements options under the Script tab in the Options window are now checked by default

Known limitations:

- Neither schema nor data are created when building a database from the Subversion source control repository from the CLI
- "StartIndex cannot be less than zero" error is encountered when applying source control options in the CLI when the Mercurial repository is used as the input source

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

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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.