# ApexSQL DevOps Toolkit – Web dashboard

Version 2020.x

Release Notes and Requirements

# System requirements

ApexSQLDev	Ops to olkit
Hardware	Dual Core 2.0 GHz CPU 4 GB memory
SQL Server	SQL Server 2005 and higher <sup>11</sup>
os	Windows 7 SP1/Windows Server 2008 R2 SP1 and higher [1]
Software	.NET Framework 4.7.2 or higher ApexSQL Build 2018 R4 <sup>[3]</sup> ApexSQL Data Diff 2018 R6 <sup>[3]</sup> ApexSQL Diff 2018 R5 <sup>[3]</sup> ApexSQL Doc 2018 R4 <sup>[3]</sup> ApexSQL Enforce 2018 R6 <sup>[3]</sup> ApexSQL Generate 2018 R4 <sup>[3]</sup> ApexSQL Mask 2019 R2 <sup>[3]</sup> ApexSQL Script 2018 R4 <sup>[3]</sup> ApexSQL Trigger 2018 R3 <sup>[3]</sup> ApexSQL Unit Test 2018 R4 <sup>[3]</sup>
Note	The number of ApexSQL tools required is based on how extensive a CI/CD workflow pipeline is and how many steps it includes  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		
	See <u>How to setup image based database provisioning</u>		
Azure DevOps Ser	ver (TFS) / Azure DevOps Services plug-in		
Hardware	214 KB disk space		
Software	TFS 2015 Update 2 or higher, Azure DevOps Services		
Bamboo plug-in			
Hardware	1.65 MB disk space		
Software	Atlassian Bamboo 6.6.3 or higher		
Jenkins plugin			
Hardware	5.8 MB disk space		
Software	Jenkins 2.138 or higher		
Octopus Deploy step templates			

Hardware	32 KB disk space
Software	Octopus v2018.9.11 or higher
PowerShell scripts	
Hardware	500 KB disk space
Software	PowerShell 5.0 NuGet 3.5.0 or higher
TeamCity plug-in	
Hardware	16.3 MB disk space
Software	TeamCity 10.0 or higher
Web dashboard	
Hardware	164 MB disk space
Software	Internet Explorer 11 or higher Edge build 14393 or higher Chrome 50 or higher Mozilla Firefox 50 or higher Opera 40 or higher
Port	TCP port 5019 (http) and 4443 (https) on ApexSQL DevOps toolkit - Web Dashboard web server (configurable)

<sup>[1]</sup> See <u>Supported systems</u> for exact version support

<sup>[3]</sup> The minimum required version

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

# 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]									
	2005	2008	2012	2014	2016	201	17	2019 (	CTP 3
						Windows	Linux [3]	Windows	Linux [3]
ApexSQL DevOps toolkit	~	~	~	~	~	~	~	~	~

SQL Server edition 4						
				Azure SQL	. Database	A DDG
	Express	Standard	Enterprise	Single Database, Elastic Pool	Managed Instance	Amazon RDS for SQL Server
ApexSQL DevOps toolkit	~	~	~			

Source control systems					
	Azure DevOps [6]	Git ™	Mercurial <sup>छ</sup>	Perforce 171	Subversion [7]
ApexSQL DevOps toolkit	~	~	~	~	~

<sup>[3]</sup> Tested on Ubuntu 16.04

## **Getting Started**

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

# Release Notes (release history)

# ApexSQL DevOps toolkit - Web dashboard

Release: 2020.03.0229 Date: May 21, 2020

#### **Enhancements:**

- CLI Help link
- Application telemetry now collects anonymous data on the use and performance of applications and application components

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

<sup>&</sup>lt;sup>[6]</sup> Azure DevOps Server (TFS) <sup>[7]</sup> / Azure DevOps Services

<sup>[7]</sup> Up to the latest version

Release: 2020.02.0223 Date: April 23, 2020

#### **Enhancements:**

- The pipeline execution can be stopped now with the Run button changed into Stop upon starting
- Open database documentation and code review reports directly from pipeline
- ApexSQL Updater for configuring advanced updating settings of all installed ApexSQL products

Release: 2020.01.0214 Date: April 2, 2020

### Changes:

• The application pre-install configuration is now presented as one step layout in the Single installer for all ApexSQL Developer tools.

Release: 2020.01.0210 Date: March 04, 2020

#### **Enhancements:**

- New error handling and send logs functionality
- Improved application service logging with additional source control connection messages

#### Fixes:

- "Connection to server has failed" error is encountered when the Document step is executed using the SQL Server authentication method for database connection
- External content is opened in current browser tab when the Customer services and the Licenses agreement links are clicked in the About view
- "Incorrect username or password" error is encountered in the application login page when the account for the service Log on is changed
- Low text visibility because of color contrast in the About view when dark theme is used
- Loading source control information lasts indefinitely when creating new source control data source and refresh button is pressed without populated connection parameters
- Configuration values for the monthly schedule are reset to default in the On a schedule pipeline trigger configuration view when the view is opened for edit
- Unit tests are not executed when custom unit test class is imported

- The pipeline On a schedule trigger execution time summary in the pipeline trigger configuration view is not updated when the schedule time is changed
- The Daily frequency time for the daily schedule is not shown in the On a schedule pipeline trigger configuration view when the view is opened for edit
- Source control data source configuration can be saved when all required fields are not populated
- The Add button for the source database data source creation does not execute any action when clicked in the Backup provision method configuration view in the Provision step
- The pipeline is not executed when the On a new commit trigger is set and new code committed to a source control repository
- The source control data type configuration can be saved without the required Folder parameter

# Changes:

- The "File:\\\" prefix is no longer required before entering the rest of the path when creating the source control data source configuration with the connection to a local repository
- The "Repository" field for URL and the "Branch" select box have switched places in the Source Control data source configuration view
- The API key field in the NuGet data source configuration view is removed
- The "Users.xml" main configuration file location is changed from the users' "%appdata%\Local\ApexSQL\ApexSQL DevOps toolkit dashboard" folder to the "C:\ProgrammData\ApexSQL\ApexSQL DevOps toolkit dashboard" folder
- The source control working folder location is changed from the "C:\Windows\System32" folder location the "C:\ProgrammData\ApexSQL\ApexSQL DevOps toolkit dashboard" folder
- The Remember password checkbox for SQL Server connection parameters in the database data type configuration view is removed and password is saved by default
- The Remember password checkbox for source control connection parameters in the source control data type configuration view is removed and password is saved by default

Release: 2018.15.0176 Date: June 21, 2019

# Changes:

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

Release: 2018.15.0173 Date: May 31, 2019

### **Enhancements:**

Exclude tables from auditing

#### Fixes:

- "Trying to replace existing file" Installation error is encountered when upgrading application version and the service is still active
- Folder browser for project files in all steps that use it does not refresh automatically when folder content is updated
- Notify step does not get executed when any of the previous steps in the pipeline fails
- Package step always fails when TFS is used as source control input for the pipeline and static data is included
- Package step does not generate outputs when the "Include output in package" option is not checked
- Pipeline configuration changes are not discarded when navigating away from the configuration view without saving
- Pipeline execution status remains in progress indefinitely when opening the pipeline configuration during execution
- Publish step is unable to use package file when the file was generated in previous executed step of the same pipeline
- Source control browser in data source configuration is unable to navigate to database project when the project is located in subfolder path
- Sync step always fails when Source Control data source type is used as source and "Include output in package" option is checked

### Changes:

- The ApexSQL Enforce rulebase file is now mandatory for the Review step
- The ApexSQL Trigger project file is now mandatory for the Audit step

Release:
2018.13.0168
Date:
April 23, 2019

#### **Enhancements:**

Mask sensitive data

#### Fixes:

• "Could not find a part of the path" error is encountered when using local administrator for service startup while domain user is logged on windows session in installation wizard

• "Padding is invalid and cannot be removed" error is encountered when using nonalphanumerical and special characters for the application user's password in installation wizard

Release:

2018.11.0160

Date:

March 22, 2019

#### **Enhancements:**

- Provision a database
- Backup database
- Compare production database with source control
- Validate schema changes
- Format and obfuscate SQL code
- Include custom PowerShell script

#### Fixes:

- "Selected path for sync script doesn't exist" error encountered when using the NuGet data source as Deploy step source created as output of the previous Sync step executed in the same pipeline
- Sync step fails when using as source a streamed NuGet data source created as output of the previous Package step executed in the same pipeline
- Creating new application user with the Administrator role results in assigning the User role

# Changes:

• Data sources are represented and created by interactive icons, same as pipeline steps

Release:

2018.07.0145

Date:

December 25, 2018

#### **Enhancements:**

- Navigating away from the General options page now displays confirmation dialogue in case changes are not saved
- Pipeline configuration changes can now be saved or discarded with Save and Cancel buttons

- The Audit step now automatically excludes tables with existing auditing triggers from new triggers implementation
- Syntax in the additional parameters text field is now highlighted

#### Fixes:

- The Customer service link under the About tab lead to the wrong page
- The Bottom part of all displayed pages cannot be reached when scrolled down
- Deploy step shows success status even when the synchronization process fails
- Editing SQL script data source goes to blank view and creates duplicate data source after save
- "Unable to find package" error is encountered when using NuGet as a data source in the Sync and Deploy steps
- Unable to automatically use database script folder as data source in the Build step due to missing folder path definition
- Cached data from a source control repository remains indefinitely in the application's source control working folder
- Summary display window resets to minimum size after changing views
- Session timeout value is not stored with Save as my defaults option
- Output folder path under the General options is not restored to default when the ApexSQL defaults button is clicked

## Changes:

- Breadcrumb navigation link now displays "Edit pipeline" text instead of pipeline name when editing an existing pipeline
- The view mode toggle option is now streamlined in the Pipeline and Data sources view
- Source and target database connection fields are no longer mandatory when project file is included in a step configuration
- The text labels that show a pipeline trigger type are replaced with icons
- Execution button now has Scheduled label for the Pipeline with On schedule type trigger
- Execution button now has Pending commit label for the Pipeline with On commit type trigger
- Schema sync step is now Sync step
- Data sync step is now Sync data step
- Default installation folder is now changed to 'C:\Program Files\ApexSQL\ApexSQL DevOps toolkit'
- Default execution output folder path is now changed to '%AppData%\ApexSQL\ApexSQL
  DevOps toolkit'
- Default projects folder path is now changed to 'MyDocuments\ApexSQL\ApexSQL DevOps toolkit dashboard\Projects'

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Ke	lease:



Date:

November 01, 2018

#### **Enhancements:**

- Application session timeout behavior is added with the session timeout settings in general options
- Custom user name can be created now for initial application account creation in installation wizard
- Execution summary with SQL Server messages is created after Deploy step execution
- Pipeline execution summary now includes individual summary details from step executions

#### Fixes:

- "Cannot create '%project\_file\_path%' because a file or directory with the same name already exists" error is encountered when including ApexSQL Diff project file in Schema sync step
- "Could not connect to server" error is encountered when configuring Team Foundation Server hosted repository with custom collection name as Source control type data source
- "Define script data source for schema and data synchronization of the selected database" error is encountered when using only schema/data synchronization script
- "Invalid filename: sqlcmd.exe" error is encountered when executing Schema and Data synchronization scripts simultaneously in Deploy step
- Application reverts to Light theme on new login
- Application opens Home page when direct page URL is used
- Application account password is not encrypted in the application install log
- Deploy step does not execute the synchronization scripts when they are used as data source
- Deploy step remains "In progress" status indefinitely when Schema synchronization script is missing as input
- Deploy step fails when used with Data sync step in the same pipeline while the Data sync step is first enabled and then disabled in two consecutive pipeline executions respectively
- Incorrect formatting of execution summary texts when shown in summary view window
- Missing application shortcuts in Start menu and Desktop
- Resources links are opened in the current browser tab and application session ends
- Schema changes cannot be deployed when using the script data sources for the Deploy step.
- Step execution outputs remain in default location after changing the output folder path in general options view

### Changes:

- Removed the "open details" text in the link for opening pipeline summary
- Visual styles in control combo boxes have been changed

Release:	
2018.04.0076	
Date:	
October 11, 2018	

### **Enhancements:**

- Improved application installer with a dark theme
- New application icon

# Changes:

ApexSQL CI/CD toolkit – Web dashboard name is changed into ApexSQL DevOps toolkit –
 Web dashboard

Release:	
2018.01.0052	
Date:	
July 02, 2018	

### Fixes:

 Populate step always overrides fill row number settings saved in the ApexSQL Generate project file

Release:	
2018.01.0051	
Date:	
June 12, 2018	

### Features:

- Standalone graphical web user interface
- Continuous integration
  - Build a SQL Server database directly from source control and optionally include static data
  - o Fill empty tables with synthetic data
  - Integrate trigger-based audit trails and reporting into change sensitive database objects
  - o Generate full or differential documentation for the SQL Server database
  - o Test SQL Server database using unit tests

- o Enforce database best practices by reviewing, detecting and fixing issues
- o Create a clean database package for easy deployment
- o Publish package to a designated NuGet feed
- Continuous delivery
  - Compare SQL Server database schemas and create a script for schema synchronization
  - o Compare SQL Server static data and create a script for data synchronization
  - o Push schema and data changes to a target database
- Archive all output files in a central folder
- Fill empty tables with synthetic data
- Support for multiple data source types:
  - SQL Server database
  - o Source control (Git, Mercurial, Perforce, Team Foundation Server, Subversion)
  - SQL script
  - Script folder
  - NuGet package (local or feed)
- Automatically create rollback scripts
- Predefined user roles
- Per user CI/CD pipeline access
- Visual themes