

# ApexSQL DevOps toolkit – TeamCity plugin

Version 2019.x

Release Notes and Requirements

## System requirements

ApexSQL DevOps toolkit	
<b>Hardware</b>	Dual Core 2.0 GHz CPU 4 GB memory
<b>SQL Server</b>	SQL Server 2005 and higher <sup>[1]</sup>
<b>OS</b>	Windows 7 SP1/Windows Server 2008 R2 SP1 and higher <sup>[1]</sup>
<b>Software</b>	<a href="#">.NET Framework 4.7.2</a> or higher <a href="#">ApexSQL Build 2018 R5</a> <sup>[3]</sup> <a href="#">ApexSQL Data Diff 2018 R7</a> <sup>[3]</sup> <a href="#">ApexSQL Diff 2018 R5</a> <sup>[3]</sup> <a href="#">ApexSQL Doc 2018 R6</a> <sup>[3]</sup> <a href="#">ApexSQL Enforce 2018 R7</a> <sup>[3]</sup> <a href="#">ApexSQL Generate 2019</a> <sup>[3]</sup> <a href="#">ApexSQL Mask 2019 R3</a> <sup>[3]</sup> <a href="#">ApexSQL Refactor 2018 R8</a> <sup>[3]</sup> <a href="#">ApexSQL Script 2018 R4</a> <sup>[3]</sup> <a href="#">ApexSQL Trigger 2018 R3</a> <sup>[3]</sup> <a href="#">ApexSQL Unit Test 2018 R4</a> <sup>[3]</sup>
<b>Note</b>	The number of ApexSQL tools required is based on how extensive a CI/CD workflow pipeline is and how many steps it includes

	<a href="#">Source control integration available</a> for Azure DevOps <sup>[4]</sup> , Git <sup>[5]</sup> , Mercurial <sup>[5]</sup> , Subversion <sup>[5]</sup> and Perforce <sup>[5]</sup>
<b>Permissions and additional requirements</b>	<p>Windows user account with administrative privileges</p> <p>See <a href="#">Minimum permissions required to install and use ApexSQL products</a></p> <p>See <a href="#">Minimum SQL Server permissions for ApexSQL Developer tools</a></p> <p>See <a href="#">Remote access for SQL Server instance</a></p> <p>See <a href="#">How to setup image based database provisioning</a></p>
<b>TeamCity plug-in</b>	
<b>Hardware</b>	16.3 MB disk space
<b>Software</b>	<a href="#">TeamCity 10.0</a> or higher
<b>Web dashboard</b>	
<b>Hardware</b>	164 MB disk space
<b>Software</b>	<p>Internet Explorer 11 or higher</p> <p>Edge build 14393 or higher</p> <p>Chrome 50 or higher</p> <p>Mozilla Firefox 50 or higher</p> <p>Opera 40 or higher</p>
<b>Port</b>	TCP port 5019 (http) and 4443 (https) on ApexSQL DevOps toolkit - Web Dashboard web server (configurable)

<sup>[1]</sup> See [Supported systems](#) for exact version support

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

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

<sup>[5]</sup> Up to the latest version

## 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 <sup>[3]</sup>									
	2005	2008	2012	2014	2016	2017		2019 CTP 3	
						Windows	Linux <sup>[2]</sup>	Windows	Linux <sup>[2]</sup>
<a href="#">ApexSQL DevOps toolkit</a>	✓	✓	✓	✓	✓	✓	✓	✓	✓

SQL Server edition <sup>[3]</sup>						
	Express	Standard	Enterprise	Azure SQL Database		Amazon RDS for SQL Server
				Single Database, Elastic Pool	Managed Instance	
<a href="#">ApexSQL DevOps toolkit</a>	✓	✓	✓			

Source control systems					
	Azure DevOps <sup>[4]</sup>	Git <sup>[5]</sup>	Mercurial <sup>[5]</sup>	Perforce <sup>[5]</sup>	Subversion <sup>[5]</sup>
<a href="#">ApexSQL DevOps toolkit</a>	✓	✓	✓	✓	✓

<sup>[2]</sup> Tested on Ubuntu 16.04

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

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

<sup>[5]</sup> Up to the latest version

## Getting Started

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

## Release Notes [\(release history\)](#)

### ApexSQL DevOps toolkit – TeamCity plugin

Release:	2019.02.0182
Date:	August 23, 2019

### Enhancements:

- Provision a database
- Backup database
- Compare production database with source control
- Validate schema changes
- Format and obfuscate SQL code
- Sync step can be sourced directly from source control
- Sync data step can be sourced directly from source control

## Fixes:

- “Additional parameters field contains invalid value” error is encountered when a CLI parameter that has space delimited arguments is added
- Static data is included in the package when the Include static data option in the Build step is unchecked

## Changes:

- Control to change the source for the Sync step is now a select box
- Control to change the source for the Sync data step is now a select box
- Data sync step is now Sync data step
- Schema sync step is now Sync step

Release:	2018.06.0078
Date:	December 04, 2018

## Enhancements:

- Support for TeamCity 2018.1.3 (build 58658)

## Fixes:

- Package step extracts synthetic data from the test database when script folder is created

Release:	2018.05.0077
Date:	November 01, 2018

## Enhancements:

- Environmental variable %apexsql.outputPath% is added to use as the current execution output path
- The “Exclude tables” option is added in the Audit step

## Changes:

- ApexSQL Trigger project file is now mandatory in the Audit step in order to provide audit architecture and repository database information
- ApexSQL Enforce rulebase file upload is replaced with the file path text box in the Review step
- Audit step no longer overwrites existing table triggers
- Separate output folder is created for each consecutive build

- SQL Server and database connection parameters are no longer mandatory when project file is used

Release: 2018.04.0055  
Date: October 11, 2018

## Changes:

- ApexSQL CI/CD toolkit – TeamCity plugin name is changed into ApexSQL DevOps toolkit – TeamCity plugin

Release: 2018.01.0001  
Date: May 11, 2018

## Features:

- Continuous integration:
  - Build a SQL Server database directly from source control and optionally include static data
  - Fill empty tables with synthetic data
  - Integrate trigger-based audit trails and reporting into change sensitive database objects
  - Generate full or differential documentation for the SQL Server database
  - Test SQL Server database using unit tests
  - Enforce database best practices by reviewing, detecting and fixing issues
  - Create a clean database package for easy deployment
  - Publish package to a designated NuGet feed
- Continuous delivery:
  - Compare SQL Server database schemas and create a script for schema synchronization
  - Compare SQL Server static data and create a script for data synchronization
  - Push schema and data changes to a target database
- Archive all output files in a central folder
- Automatically create rollback scripts
- Flexible pipelines