

ApexSQL Azure DevOps toolkit - Azure DevOps Server (TFS) / Azure DevOps Services plugin

Version 2019.x

Release Notes and Requirements

System requirements

ApexSQL DevOps toolkit	
Hardware	Dual Core 2.0 GHz CPU 4 GB memory
SQL Server	SQL Server 2005 and higher ^[1]
OS	Windows 7 SP1/Windows Server 2008 R2 SP1 and higher ^[1]
Software	.NET Framework 4.7.2 or higher ApexSQL Build 2018 R5 ^[3] ApexSQL Data Diff 2018 R7 ^[3] ApexSQL Diff 2018 R5 ^[3] ApexSQL Doc 2018 R6 ^[3] ApexSQL Enforce 2018 R7 ^[3] ApexSQL Generate 2019 ^[3] ApexSQL Mask 2019 R3 ^[3] ApexSQL Refactor 2018 R8 ^[3] ApexSQL Script 2018 R4 ^[3] ApexSQL Trigger 2018 R3 ^[3] ApexSQL Unit Test 2018 R4 ^[3]
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 How to setup image based database provisioning
Azure DevOps Server (TFS) / Azure DevOps Services plug-in	
Hardware	5.5 MB disk space
Software	TFS 2015 Update 2 or higher, Azure DevOps Services
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)

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

^[3] The minimum required version

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

^[5] 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 ^[3]									
	2005	2008	2012	2014	2016	2017		2019 CTP 3	
						Windows	Linux ^[2]	Windows	Linux ^[2]
ApexSQL DevOps toolkit	✓	✓	✓	✓	✓	✓	✓	✓	✓

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

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

^[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

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: 2019.05.0193
Date: November 22, 2019

Enhancements:

- ApexSQL steps now use dedicated folder to store output artifacts
- Release pipeline with ApexSQL steps can be sourced with build artifact created from a build pipeline with ApexSQL steps
- The Sync step can be sourced directly from source control
- The Sync data step can be sourced directly from source control

Fixes:

- Missing output files in steps when the Include output in package option is not checked

- SQL Server username and password are not used in the Audit or Build steps execution when project file is used
- "Project file requires *.axds" extension" error is encountered when the Sync step is used in release pipeline and no project file is used
- Synchronization script is not generated when using the Sync step in release pipeline and direct path to a NuGet package is provided as source
- Additional parameters are not working when used with the Sync step in release pipeline

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

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Release:	2019.03.0188
Date:	September 20, 2019

Enhancements:

- Provision a database
- Backup database
- Compare production database with source control
- Validate schema changes
- Mask sensitive data
- Format and obfuscate SQL code

Release:	2018.10.0146
Date:	March 08, 2019

Features:

- Native Azure DevOps Server (TFS) / Azure DevOps Services plugin
- Support for Team Foundation Server (TFS) 2015, TFS 2017, TFS 2018, Azure DevOps Server 2019 RC2, Azure DevOps Services
- 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