

# ApexSQL DevOps toolkit – Jenkins plugin

Version 2018.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 R4</a> <sup>[3]</sup> <a href="#">ApexSQL Data Diff 2018 R6</a> <sup>[3]</sup> <a href="#">ApexSQL Diff 2018 R5</a> <sup>[3]</sup> <a href="#">ApexSQL Doc 2018 R4</a> <sup>[3]</sup> <a href="#">ApexSQL Enforce 2018 R6</a> <sup>[3]</sup> <a href="#">ApexSQL Generate 2018 R4</a> <sup>[3]</sup> <a href="#">ApexSQL Mask 2019 R2</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>
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### Azure DevOps Server (TFS) / Azure DevOps Services plug-in

<b>Hardware</b>	214 KB disk space
<b>Software</b>	<a href="#">TFS 2015 Update 2</a> or higher, <a href="#">Azure DevOps Services</a>

### Bamboo plug-in

<b>Hardware</b>	1.65 MB disk space
<b>Software</b>	<a href="#">Atlassian Bamboo 6.6.3</a> or higher

### Jenkins plugin

<b>Hardware</b>	5.8 MB disk space
<b>Software</b>	<a href="#">Jenkins 2.138</a> or higher

### Octopus Deploy step templates

<b>Hardware</b>	32 KB disk space
<b>Software</b>	<a href="#">Octopus v2018.9.11</a> or higher
PowerShell scripts	
<b>Hardware</b>	500 KB disk space
<b>Software</b>	<a href="#">PowerShell 5.0</a> <a href="#">NuGet 3.5.0</a> or higher
TeamCity plug-in	
<b>Hardware</b>	16.3 MB disk space
<b>Software</b>	<a href="#">TeamCity 10.0</a> or higher
Web dashboard	
<b>Hardware</b>	164 MB disk space
<b>Software</b>	Internet Explorer 11 or higher Edge build 14393 or higher Chrome 50 or higher Mozilla Firefox 50 or higher Opera 40 or higher
<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>[4]</sup>									
	2005	2008	2012	2014	2016	2017		2019 CTP 3	
						Windows	Linux <sup>[3]</sup>	Windows	Linux <sup>[3]</sup>
<a href="#">ApexSQL DevOps toolkit</a>	✓	✓	✓	✓	✓	✓	✓	✓	✓

SQL Server edition <sup>[4]</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>[6]</sup>	Git <sup>[7]</sup>	Mercurial <sup>[7]</sup>	Perforce <sup>[7]</sup>	Subversion <sup>[7]</sup>
<a href="#">ApexSQL DevOps toolkit</a>	✓	✓	✓	✓	✓

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

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

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

<sup>[7]</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 - Jenkins plugin

Release: 2018.14.0169  
 Date: May 17, 2019

### Enhancements:

- Mask sensitive data

### Fixes:

- Compare step is always successful due to incorrect default scope of object types is used in comparison
- Pre-deployment validation in the Deploy step is always successful due to incorrect default scope of object types is used in comparison

- Post-deployment validation in the Deploy step is always successful due to incorrect default scope of object types is used in comparison

Release: 2018.12.0161  
Date: March 29, 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:

- "Object MS\_Description not found" messages are shown multiple times in the output log when the Document step is reordered and the Changes only option selected
- "Object already exists" warnings are shown multiple times when the Build step is executed and artifacts from previous execution remained in the checkout folder

Release: 2018.06.0079  
Date: December 04, 2018

## Features:

- Native Jenkins user interface
- 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