

# CI/CD for Azure SQL in DevOps

Making it Easier



# Overall Process

---

- 1) Develop your Database Project in Visual Studio and check it in
- 2) Create a Build Pipeline
- 3) Create a Release Pipeline
- 4) Enable the CI/CD Trigger
- 5) Enable Pre-Deployment Approvals
- 6) Verify your DB Changes
- 7) Setup the DevOps Dashboard Badges



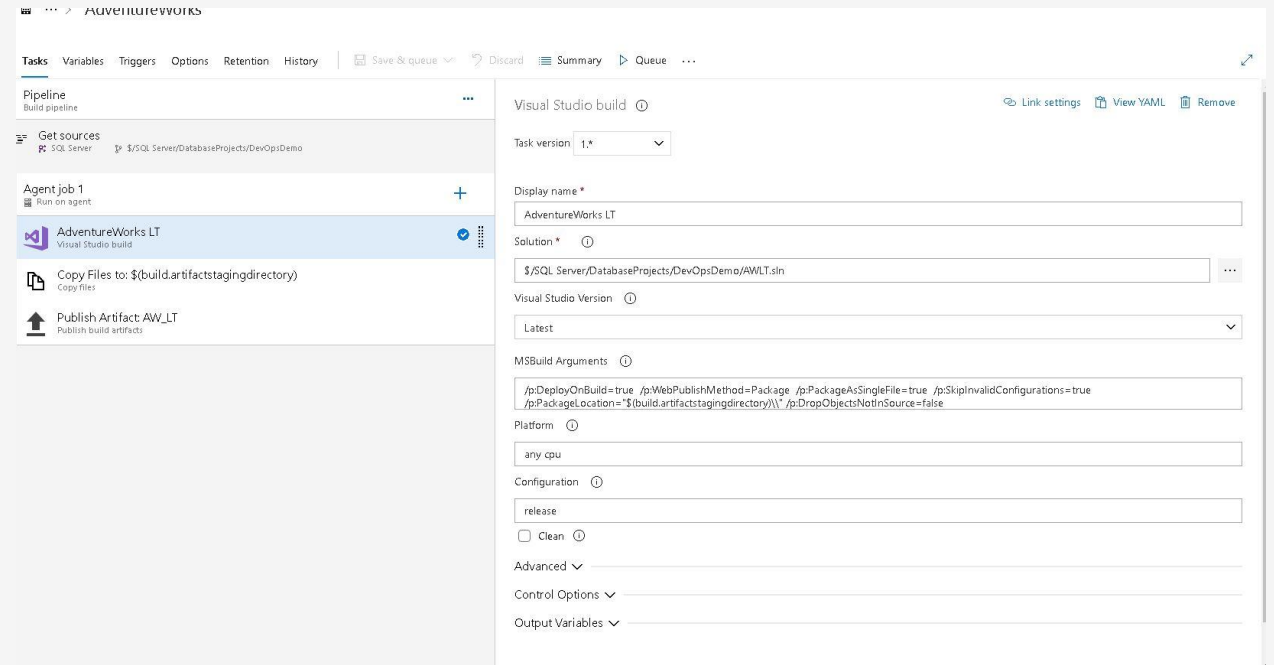
# Creating a Build Pipeline

1 The Build Pipeline takes your source code and creates an **artifact**.

2 This requires that you store your code in a DevOps Repo. This Demo uses the TFVC Source Control provider.

3 Because this is a SQL instance, the build process simply runs SQLPACKAGE.EXE to create a DacPac as the artifact.

4 The DacPac becomes the input for the next step, the Release



# Creating a Release Pipeline

- 1 The Release Pipeline takes the DacPac and publishes it to an Azure SQL instance.
- 2 You can chain deployments to QA, DEV, Prod tiers on the same or separate SQL Servers
- 3 You can ask a Process Manager to Approve the Deployment
- 4 The system emails you and sets Project Dashboard build badges

The screenshot shows the configuration for a release pipeline named 'AdventureWorks Deploy'. The left sidebar shows the pipeline structure with a 'QA' deployment process and an 'Agent job' containing an 'Azure SQL DacpacTask'. The main panel displays the configuration for the 'Azure SQL Database deployment' task.

**Task configuration details:**

- Task version:** 1.\*
- Display name:** Azure SQL DacpacTask
- Azure Service Connection Type:** Azure Resource Manager
- Azure Subscription:** (Scoped to subscription 'Pay-As-You-Go')
- SQL Database:**
  - Authentication Type:** SQL Server Authentication
  - Azure SQL Server:** insyncva.database.windows.net
  - Database:** \$(DatabaseName\_QA)
  - Login:** \$(DatabaseUserName)
  - Password:** \$(DatabaseUserPassword)

# CI/CD Trigger

The Continuous Integration/Continuous Deployment trigger is found on the Artifact object in the Release Pipeline

All pipelines > AdventureWorks Deploy

Pipeline Tasks Variables Retention Options History

Artifacts | + Add

Stages | + Add

QA  
1 job, 1 task

Prod  
1 job, 1 task

Dev  
1 job, 1 task

Continuous deployment trigger

Build: \_AdventureWorks Lite

☒ Enabled

Creates a release every time a new build is available.

Build branch filters ⓘ

No filters added.

+ Add

# More questions about CI/CD in Azure SQL?

[Azure Pipeline Docs](#)



[Gwalkey Github](#)

