

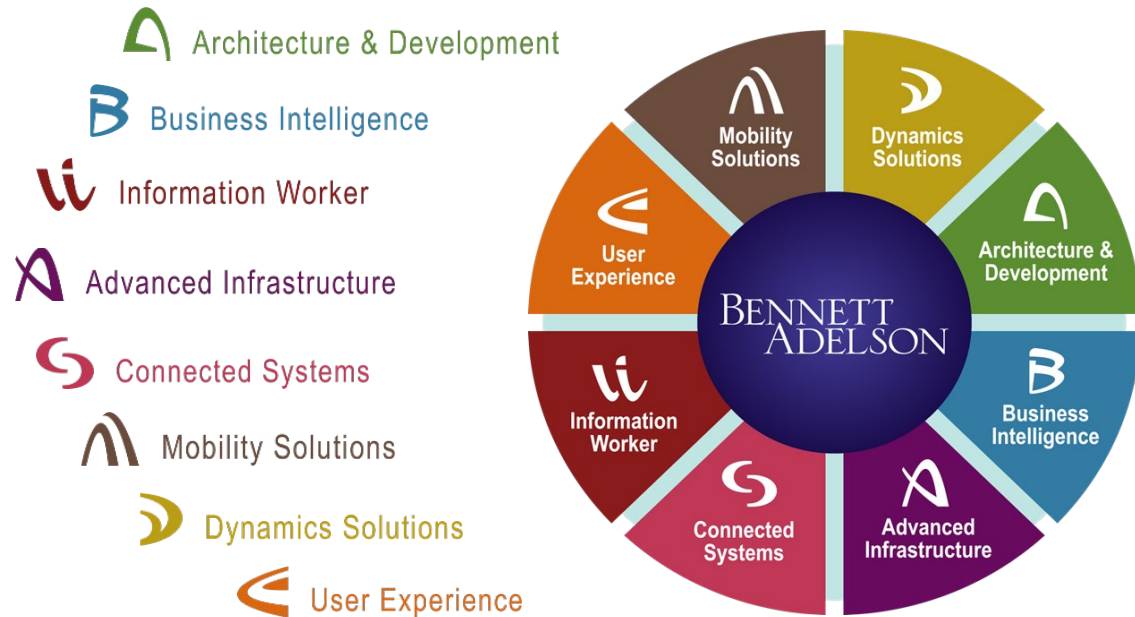
The New Azure DevOps: All in One, One for All

Richard Broida

Company Highlights

- Established in 1996, with more than 1,000 clients serviced to date
- Headquartered in Cleveland, with a satellite office in Columbus
- Local and national clients, with international service delivery capabilities and experience

Eight Practice Disciplines



Significant Achievements

- 2017 and 2016 Top 200 Microsoft Partners, Redmond Channel Partners
- 2015 Top 100 Most Promising Microsoft Solution Providers, CIO Review
- 2011 Microsoft Partner of the Year, Heartland District
- 2010 Microsoft Partner of the Year Finalist
- Office 365 TAP Member
- Office 365 FastTrack Partner
- Office 365 Preferred Deployment Partner
- Member of Microsoft's SharePoint Patterns & Practices Council
- Members of the Microsoft Partner Advisory Council
- Founded the Cleveland SharePoint and .NET Special Interest Group
- Microsoft Gold Partners: Cloud, Collaboration and Content
- Microsoft Silver Partners: Cloud Productivity, Windows and Devices

About Me

- Richard Broida
- Practice Director - Connected Systems
- rbroida@bennettadelson.com



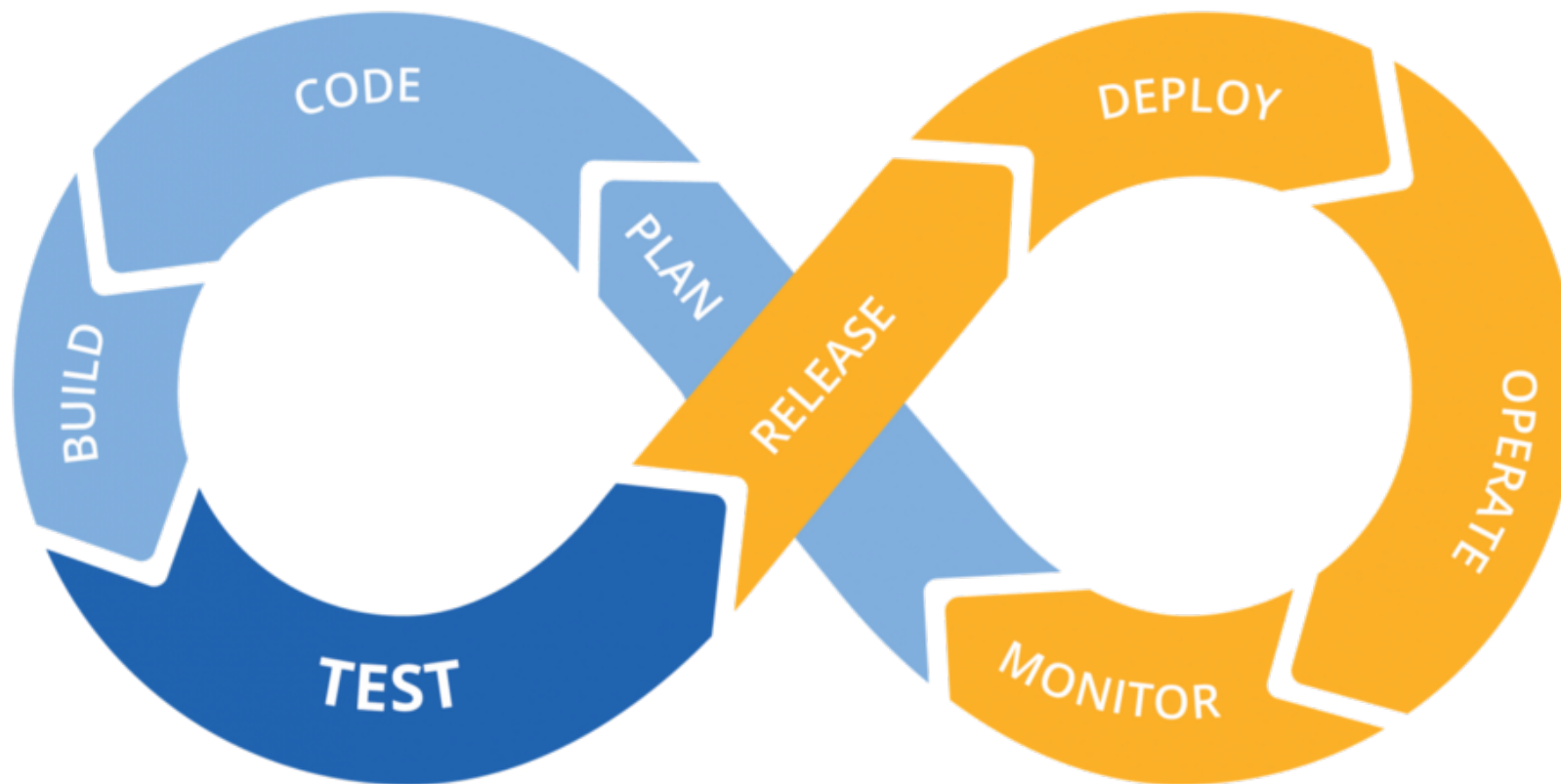
Agenda



- What's New in Azure DevOps
- A Complete Toolchain in a Few Clicks
- Customizing Release Pipelines
 - Dev/Test/Prod Environments
 - Manual Approvals
 - Passwords and other Secrets

What' New in Azure DevOps





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Introducing Azure DevOps



Azure
Boards

Plan, track, and discuss work across teams, deliver value to your users faster.



Azure
Repos

Unlimited cloud-hosted private Git repos. Collaborative pull requests, advanced file management, and more.



Azure
Pipelines

CI/CD that works with any language, platform, and cloud. Connect to GitHub or any Git provider and deploy continuously to any cloud.



Azure
Test Plans

The test management and exploratory testing toolkit that lets you ship with confidence.



Azure
Artifacts

Create, host, and share packages. Easily add artifacts to CI/CD pipelines.

Visual Studio | Marketplace

Richard Broida (rbroida@bennettadelson.com) Sign out

Visual Studio

Visual Studio Code

Azure DevOps

Subscriptions


Build your own

Publish extensions


azure pipelines

191 Results


Showing: All categories Hosted On: Any Price: Any Sort By: Relevance




Snyk for Azure Pipelines
Jesse Houwing 228
Snyk continuously finds and fixes vulnerabilities in your dependencies.
★★★★★ FREE




GitLab Integration for Azure Pipelines
Utkarsh Shigihalli 855
Download sources from GitLab repository in your build pipeline or consume
★★★★★ FREE




Azure Pipelines Slack app
Microsoft 506
Use the Azure Pipelines app for Slack to easily monitor your pipelines
★★★★★ FREE




Sofy.ai - Stage Test Runner
Sofy.ai 18
Make Sofy.ai's testing services a part of your Azure DevOps pipelines. Using this
★★★★★ FREE




Azure DevOps Extension for Excel
Microsoft DevLabs 2.8K
Azure Pipelines tasks for packaging and publishing Azure DevOps and Visual Studio
★★★★★ FREE




Azure DevOps Open in Excel
Microsoft DevLabs 61.1K
This extension opens work items and query results in Excel from Azure DevOps
★★★★★ FREE




Azure Policy and Governance
Sebastian Schütze 65
Tasks for Builds and Releases related to Governance Topics.
★★★★★ FREE




Purge Azure CDN Endpoint
Fabien Lavocat 410
Purge an Azure CDN Endpoint
★★★★★ FREE




Azure Artifacts
Microsoft 31.4K
Create, host, and share packages with your team
★★★★★ FREE TRIAL



Azure AD Application
Ralph Jansen 90
An Azure DevOps extension with Azure Pipelines tasks to manage Azure AD
★★★★★ FREE



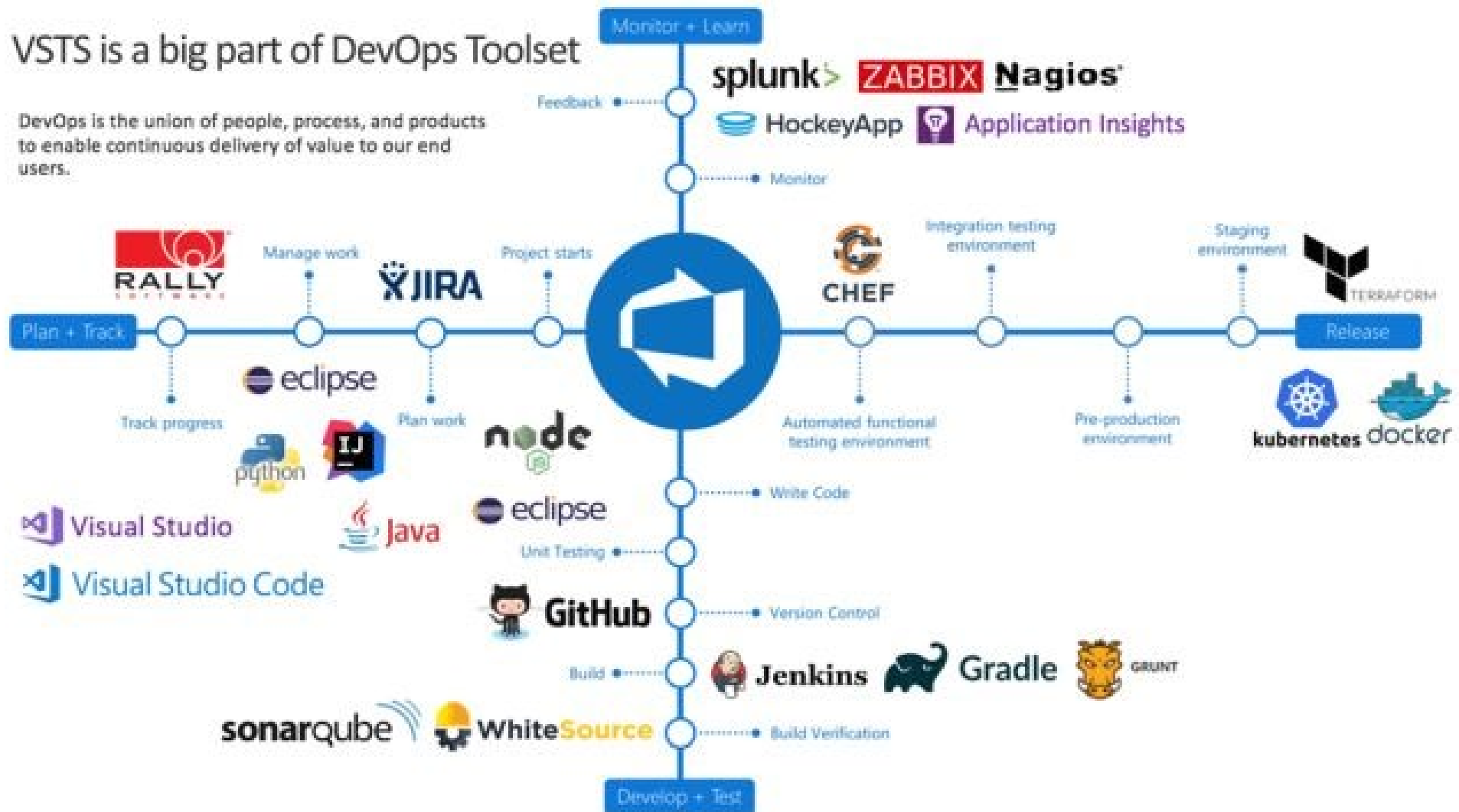
Azure DNS zone manager
Solutions Experts in 25
Tasks package for Azure DNS Zone
★★★★★ FREE



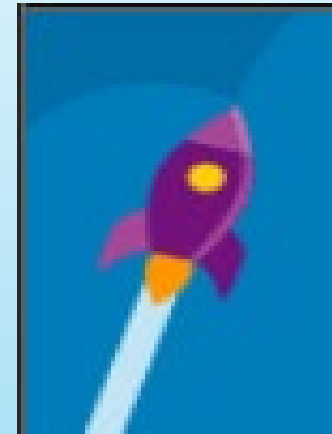
Azure AD Application
Solutions Experts in 17
Tasks package for Azure AD Applications
★★★★★ FREE

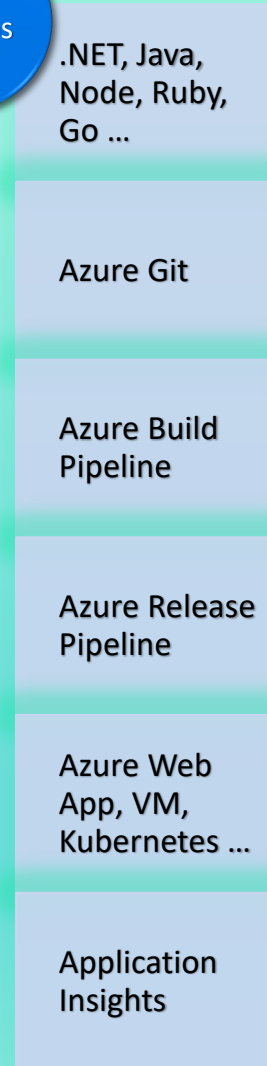
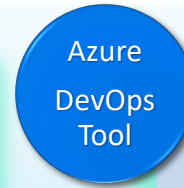
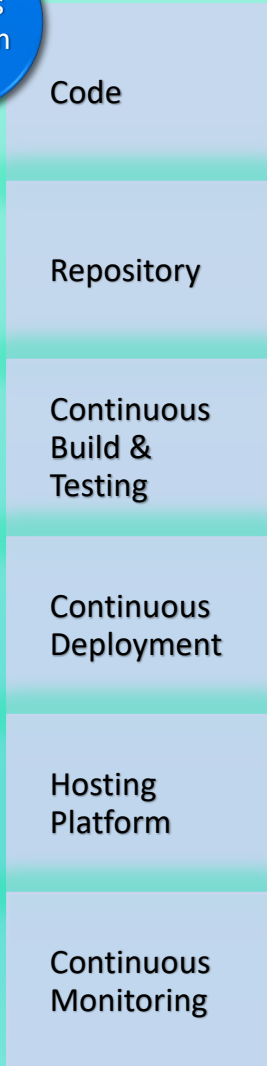
VSTS is a big part of DevOps Toolset

DevOps is the union of people, process, and products to enable continuous delivery of value to our end users.



A Complete Toolchain in a Few Clicks





<<

+

Create a resource

🏠

Home

📊

Dashboard

☰

All services

★

FAVORITES

📁

Resource groups

🗪

All resources

🕒

Recent

🔗

App Services

🗄️

SQL databases

💻

Virtual machines (classic)

💻

Virtual machines

⚙️

Cloud services (classic)

🔑

Subscriptions

👤

Logic Apps

🛡️

Azure Active Directory

📊

Monitor

🛡️

Security Center

💰

Cost Management + Billing


🗣️

Help + support

Dashboard > New > DevOps Project

DevOps Project

Microsoft



DevOps Project

Microsoft

Create

♡ Save for later

Launch an app running in Azure in a few quick steps

DevOps Project makes it easy to get started on Azure. It helps you launch an app on the Azure service of your choice in a few quick steps. DevOps Project set you up with everything you need for developing, deploying and monitoring your app.

Creating a DevOps Project provisions Azure resources and comes with a Git code repository, Application Insights integration and a continuous delivery pipeline setup to deploy to Azure. The DevOps Project dashboard lets you monitor code commits, builds and, deployments, from a single view in the Azure portal.











Key benefits of DevOps Project:

- Get up and running with a new app and a full DevOps pipeline in just a few minutes
- Support for a wide range of popular frameworks such as .NET, Java, PHP, Node, and Python
- Start fresh or bring your own application from Github
- Built-in Application Insights integration for instant analytics and actionable insights
- Cloud-powered CI/CD using Azure Pipelines and Azure Repos

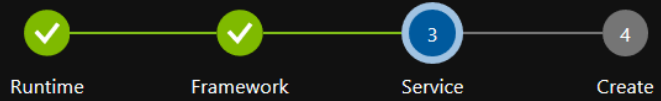
DevOps Projects are powered by Azure Pipelines and gives you a head start in developing and deploying your applications. From the initial starting point a DevOps Project provides, you can very easily:

- Customize your build and release pipeline – ex. add a test stage to your pipeline to validate before deploying to production
- Use pull requests to manage your codeflow & keep your quality high
- Test and build each commit before you merge your code to raise the quality bar
- Track your Project backlog and issues right along with your application by using Azure Boards








Start fresh with a new application

 .NET 	 Node.js	 PHP
New Web App using ASP.NET or ASP.NET Core, or a new IoT app	New Web app using Node.js, Express.js or Sails.js, or a new IoT app	New Web app using Laravel or Symfony
 Java	 Static Website	 Python
New Web App using Spring or JSF, or a new IoT app	New static website using HTML, CSS, and JavaScript	New Web App using Bottle, Django, or Flask, or a new IoT app
 Ruby	 Go	 C
New Web App using Ruby on Rails	New Web App using Go	New IoT app using C

or start with your application



Select an Azure service to deploy the application

 Kubernetes Service Fully managed Kubernetes container orchestration service for managing containers without container expertise.	 Service Fabric Cluster A distributed systems platform to deploy and manage scalable and reliable microservices and containers.	 Windows Web App Fully managed compute platform on Windows for web applications and websites.
 Linux Web App Fully managed compute platform on Linux for web applications and websites.	 Function App A serverless compute service to run code on-demand without managing infrastructure.	 Web App for Containers Fully managed compute platform on Linux for deploying and running containerized web applications.
 Virtual machine Windows virtual machine to run your app		

Don't see a service you're looking for? We're continuously adding support for more Azure services and app frameworks. [Learn more](#)

Previous

Next

Dashboard > New > DevC

DevOps Projects

Create

Select a VM size

Browse available virtual machine sizes and their features



[Clear all filters](#)

Size : **Small (0-4)**



Generation : **2 selected**



Family : **General purpose**



Premium disk : **Supported**



[+ Add filter](#)

Showing 8 of 156 VM sizes.

| Subscription: Richard Broida BA MSDN Account

| Region: East US


| Current size: Standard_DS2_v2


VM SIZE <small>↑↓</small>	OFFERING <small>↑↓</small>	FAMILY <small>↑↓</small>	VCPUS <small>↑↓</small>	RAM (G... <small>↑↓</small>	DATA DISKS <small>↑↓</small>	MAX IOPS <small>↑↓</small>	TEMPORARY STOR... <small>↑↓</small>	PREMIUM DISK SUP... <small>↑↓</small>	COST/MONTH (EST... <small>↑↓</small>
B2ms	Standard	General purpose	2	8	4	2400	16 GB	Yes	\$61.90
B2s	Standard	General purpose	2	4	4	1600	8 GB	Yes	\$30.95
B4ms	Standard	General purpose	4	16	8	3600	32 GB	Yes	\$123.50
D2s_v3	Standard	General purpose	2	8	4	3200	16 GB	Yes	\$71.42
D4s_v3	Standard	General purpose	4	16	8	6400	32 GB	Yes	\$142.85
DS1_v2	Standard	General purpose	1	3.5	4	3200	7 GB	Yes	\$54.31
DS2_v2	Standard	General purpose	2	7	8	6400	14 GB	Yes	\$108.62
DS3_v2	Standard	General purpose	4	14	16	12800	28 GB	Yes	\$217.99


Deploy_DevOps_Project_bagab20198 - Overview


Deployment

 Delete  Cancel  Redeploy  Refresh

 Overview

 Inputs

 Outputs

 Template

... Your deployment is underway

Check the status of your deployment, manage resources, or troubleshoot deployment issues. Pin this page to your dashboard to easily find it next time.



Deployment name: Deploy_DevOps_Project_bagab20198

Subscription: [Richard Broida BA MSDN Account](#)

Resource group: [VS-BACONNECTEDSYSTEMS-GROUP](#)

DEPLOYMENT DETAILS [\(Download\)](#)

Start time: 4/22/2019, 8:47:00 PM

Duration: 8 seconds

Correlation ID: a53ddffc-164a-43b6-846d-266e34c0650a

RESOURCE	TYPE	STATUS	OPERATION DETAILS
No results.			

Dashboard > Deploy_DevOps_Project_bagab20198 - Overview

Deploy_DevOps_Project_bagab20198 - Overview

Deployment

Search (Ctrl+/)

Delete Cancel Redeploy Refresh

Overview

Inputs

Outputs

Template

✓ Your deployment is complete

Go to resource



Deployment name: Deploy_DevOps_Project_bagab20198
Subscription: [Richard Broida BA MSDN Account](#)
Resource group: [VS-BAConectedSystems-Group](#)

DEPLOYMENT DETAILS [\(Download\)](#)

Start time: 4/22/2019, 8:47:00 PM

Duration: 43 seconds

Correlation ID: a53ddffc-164a-43b6-846d-266e34c0650a

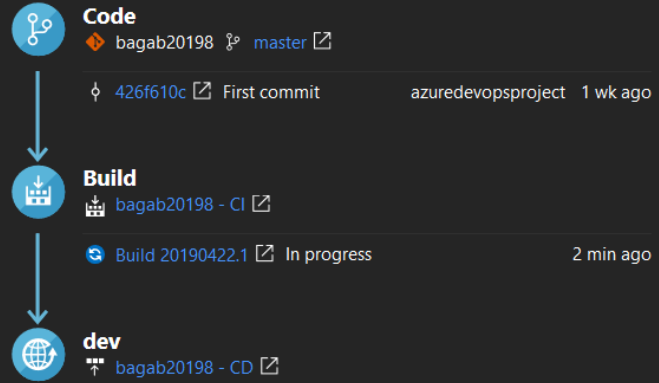
RESOURCE	TYPE	STATUS	OPERATION DETAILS
✓ BAConectedSystems/bag	microsoft.visualstudio/a...	OK	Operation details
✓ BAConectedSystems	microsoft.visualstudio/a...	OK	Operation details

bagab20198

DevOps Projects

- [Refresh](#)
- [Project homepage](#)
- [Repositories](#)
- [Build pipelines](#)
- [Release pipelines](#)
- [Agile backlogs](#)
- [Users & groups](#)
- [Delete](#)

CI/CD pipeline



Repository

bagab20198
No commit in the past 7 days

[Code](#)

Azure resources

Azure Resources are not yet created. They will be created by CI/CD pipeline. You can track pipeline status in 'CI/CD pipeline' section

Microsoft Azure

Search resources, services, and docs

>_📄🔔3⚙️?😊rbroida@bennettadel...
RICHARD BROIDA MSDN BA...

Dashboard > Resource groups > VS-BACONNECTEDSYSTEMS-GROUP > bagab20197

+

 Create a resource

Home

Dashboard

All services

FAVORITES

Resource groups

All resources

Recent

App Services

SQL databases

Virtual machines (classic)

Virtual machines

Cloud services (classic)

Subscriptions

Logic Apps

Azure Active Directory

Monitor

Security Center

Cost Management + Billing

Help + support

Advisor

bagab20197

DevOps Projects

RefreshProject homepageRepositoriesBuild pipelinesRelease pipelinesAgile backlogsUsers & groupsDelete

CI/CD pipeline

Code

bagab20197master

ea4e5f11First commitazuredevopsproject1 wk ago

Build

bagab20197 - CI

Build 20190421.1Succeeded24 h ago

3/3 tests passed

dev

bagab20197 - CD

Release-1Succeeded24 h ago

Repository

bagab20197

No commit in the past 7 days

Code

Azure resources

Application endpoint

https://bagab20197.azurewebsites.net

Browse

App Service

bagab20197

Running

Release-1

Application Insights

bagab20197

04 PM05 PM06 PM07 PM08 PM09 PM

SERVER REQUEST1

FAILED REQUEST1

B bagab20197 +

Overview

Boards

Work Items

Boards

Backlogs

Sprints

Queries

Repos

Pipelines

Test Plans

Artifacts

bagab20197 Team ☆ 👤

+ New Work Item

🔄 View as Board

🔑 Column Options

...



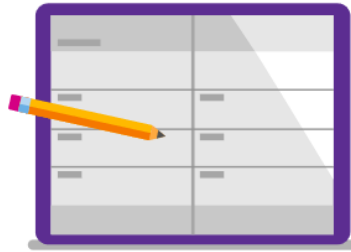
Stories ▾

🔧

🔍

⚙️

↗️



Get started with your product backlog

Use the "New Work Item" command to create and prioritize work items

+ New Work Item

[Learn more about backlogs](#)

Planning

Drag and drop work items to include them in a sprint.

bagab20197 Team Backlog

Iteration 1

Current

No work scheduled yet

Iteration 2

No work scheduled yet

Iteration 3

No work scheduled yet

+ New Sprint

Azure DevOps services



Boards

Flexible agile planning with boards and cross-product issues



Repos

Repos, pull requests, advanced file management and more



Pipelines

Build, manage, and scale your deployments to the cloud



Artifacts

Continuous delivery with artifact feeds containing NuGet, npm, Maven, Universal, and Python packages



Test Plans

Structured manual testing at any scale for teams of all sizes



B bagab20197 +

Overview

Repos

Files

Commits

Pushes

Branches

Tags

Pull requests

Pipelines

master

bagab20197 / ArmTemplates / windows-webapp-template.json

bagab20197

Application

aspnet-core-dotnet-core

aspnet-core-dotnet-core.FunctionalTests

aspnet-core-dotnet-core.UnitTests

.gitattributes

.gitignore

aspnet-core-dotnet-core.sln

LICENSE

Readme.md

ArmTemplates

{ } windows-webapp-template.json ...

Contents

History

Compare

Blame

Edit

Re

```
1 {
2   "$schema": "https://schema.management.azure.com/schemas/
3   "contentVersion": "1.0.0.0",
4   "parameters": {
5     "webAppName": {
6       "type": "string"
7     },
8     "hostingPlanName": {
9       "type": "string"
10    },
11    "appInsightsLocation": {
12      "type": "string"
13    },
14    "sku": {
15      "type": "string",
16      "defaultValue": "Standard S1"
17    }
18  },
19  "resources": [
20    {
21      "type": "Microsoft.Web/sites",
22      "name": "[parameters('webAppName')]",
23      "apiVersion": "2016-08-01",
24      "location": "[resourceGroup().location]",
25      "tags": {
26        "[concat('hidden-related:', '/subscriptions/
27      ]",
28      "resources": [
29        {
30          "type": "siteextensions",
```


Tasks Variables Triggers Options Retention History

Save & queue

Discard

Summary

Queue ...

Pipeline

Build pipeline


Get sources

bagab20197

master

Agent job 1

Run on agent


 Restore
.NET Core

 Build
.NET Core


 Test
.NET Core

 Publish
.NET Core

 Publish functional tests
.NET Core

 Copy runsettings file
Copy Files

 Copy ARM templates
Copy Files

 Publish Artifact
Publish Build Artifacts

.NET Core

Link settings


View YAML

Remove

Task version 2.*

Display name *


Build

Command * 

build

Path to project(s)

**/*.csproj

Arguments 

--configuration \$(BuildConfiguration)

Advanced

Control Options

Output Variables

Pipeline

Build pipeline

Get sources

bagab20197 master

Agent job 1

Run on agent

dotnet

Restore

.NET Core

dotnet

Build

.NET Core

dotnet

Test

.NET Core

dotnet

Publish

.NET Core

dotnet

Publish functional tests

.NET Core

Copy runsettings file

Copy Files

View YAML

Name *

bagab20197 - CI

Agent pool * ⓘ | Pool information | Manage

Hosted VS2017

Hosted

Hosted

Hosted macOS

Hosted macOS High Sierra

Hosted Ubuntu 1604

Hosted VS2017

Hosted Windows 2019 with VS2019

Hosted Windows Container

Private

Default (No agents)

Copy to clipboard




Below is a clipboard-friendly view of your selection. To copy to the clipboard, either right-click and choose 'Copy' from the browser's context menu or press Ctrl+C. [more information about YAML builds]

```
#Your build pipeline references the 'BuildConfiguration' variable, which you've selected to be settable at queue time. Create or edit the build pipeline for this YAML file, define the variable on the Variables tab, and then select the option to make it settable at queue time. See https://go.microsoft.com/fwlink/?linkid=865971

steps:
- task: DotNetCoreCLI@2
  displayName: Publish
  inputs:
    command: publish
    publishWebProjects: True
    arguments: '--configuration $(BuildConfiguration) --output $(build.artifactstagingdirectory)'
    zipAfterPublish: True
```

Copy to clipboard

[All pipelines](#) >  bagab20197 - CD

Pipeline

Tasks ▾

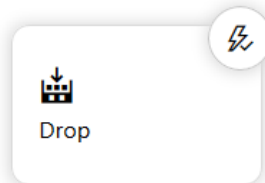
Variables


Retention

Options

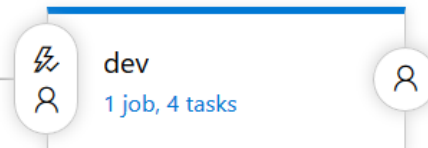
History

Artifacts | [+ Add](#)

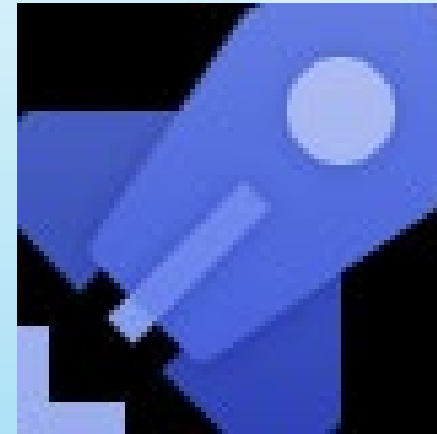


 Schedule
not set

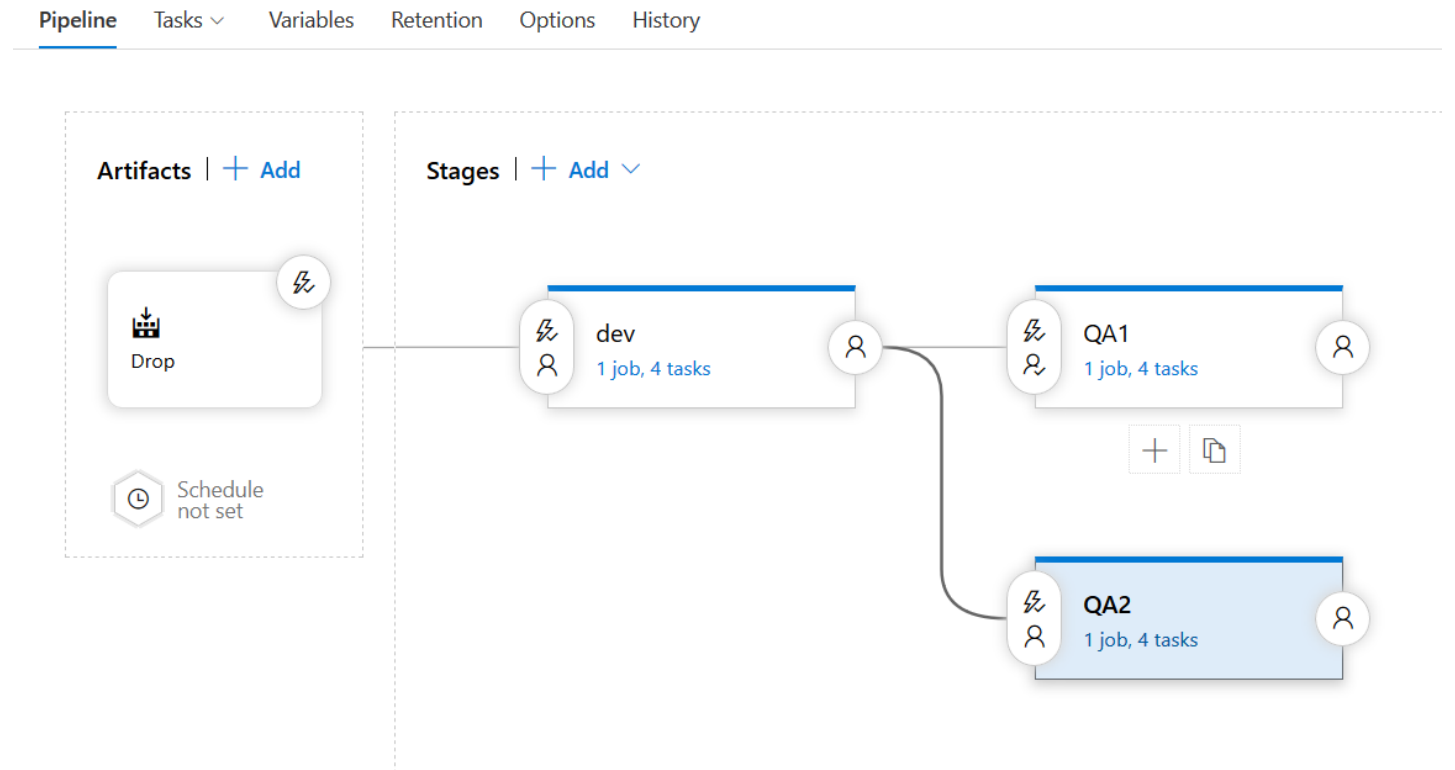
Stages | [+ Add](#) ▾



Customizing Release Pipelines



Dev/Test/Release Environments




Manual Approvals

QA1


Triggers



Define the trigger that will start deployment to this stage


Pre-deployment approvals

 Enabled

Select the users who can approve or reject deployments to this stage

Approvers 

 Richard Broida  Search users and groups for approvers

Timeout 


30




Days



Approval policies

- ☐ The user requesting a release or deployment should not approve it
- ☐ Skip approval if the same approver approved the previous stage 

 Gates

 Disabled

Passwords

PipelineTasksVariablesRetentionOptionsHistory

QA1


Deployment process

...


Agent phase

Run on agent

+

 Azure Deployment:Create Azure App Service


Azure Resource Group Deployment

 Azure Key Vault: scorpionkeyvault


Azure Key Vault

✓


⋮

 Deploy Azure App Service

Azure App Service Deploy

 Visual Studio Test Platform Installer

Visual Studio Test Platform Installer

 Test Assemblies

Visual Studio Test

Azure Ke

Task versio

Display na

Azure Ke

Azure subs

Richard

Scoped to

Key vault *

scorpion

Secrets filt

*

Control C

Output V

Please fill out the session feedback forms in order to win a chance of winning an Amazon gift card 😊



Thank you!

2019

Global **Azure**
BOOTCAMP

Thank You