

CUSTOM AZURE DEVOPS EXTENSION

Talk Overview:

Write a Pipeline Task

Build & Test using ADOS

Deploy to VS Market using ADOS

Install & Run Task from Market onto ADOS

Dushyant Priyadarshee

 @dp7g09

 <https://github.com/dp7g09>

Add tasks

Don't see what you need? [Check out the Marketplace.](#)



Tag Artifacts

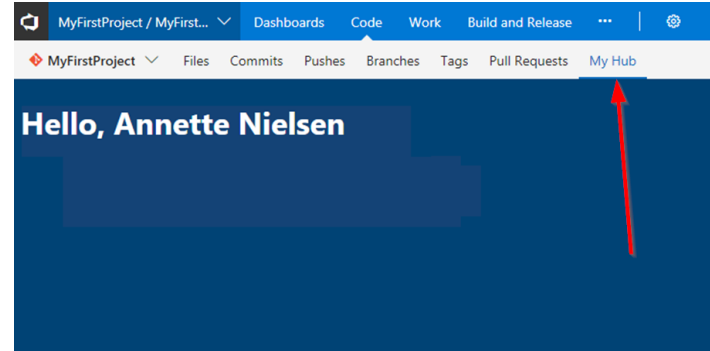
Tag artifacts during release.

by Dushyant Priyadarshie

Add

[Learn more](#)

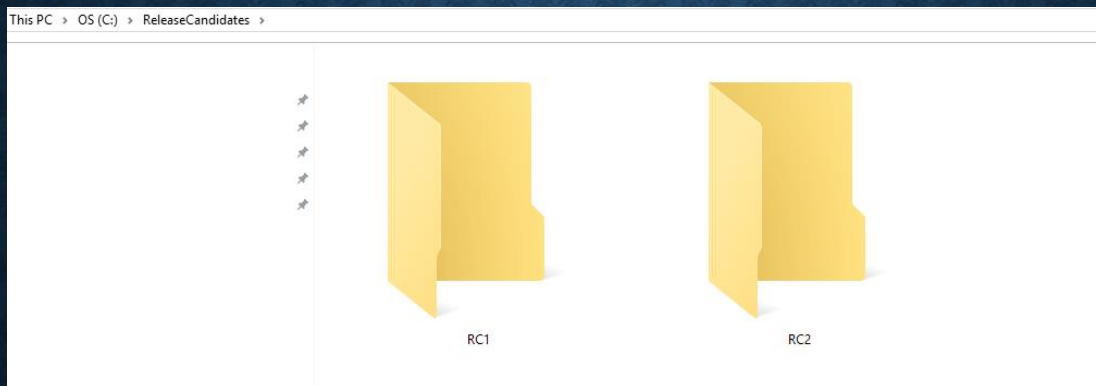
tag



AZURE DEVOPS EXTENSIONS

WRITING CUSTOM PIPELINE TASK

- **Use Case:** Azure DevOps Build/Release Task. Set Azure DevOps variable(s) with next folder name incremented from existing names. E.g. RC3, if RC1 & RC2 already exist.



- <https://github.com/dp7g09/azure-devops-nextfolder>



- Essential documentation:

<https://docs.microsoft.com/en-gb/azure/devops/extend/develop/add-build-task?view=azure-devops>

IMPORTANT FILES

Branch: master ▾


azure-devops-nextfolder / nextFolderNameTask /

Create new file

Upload files


Find file

History

 Dushyant Priyadarshee Specify tests for npm.


Latest commit 4a7fb54 4 days ago

..

 tests


Should work for folder with a missing number in sequence.

6 days ago

 NextNameGenerator.ts


Fix logic to pass all tests.

6 days ago

 icon.png


Add initial implementation of build/release task.

9 days ago

 index.ts


Set variable for ADOS.

6 days ago

 package.json


Specify tests for npm.

4 days ago

 task.json

Fix json.

9 days ago

 tsconfig.json

Add initial implementation of build/release task.

9 days ago

IMPORTANT FILES

Branch: master ▼

New pull request

Create new file







Upload files

Find File

Clone or download ▼

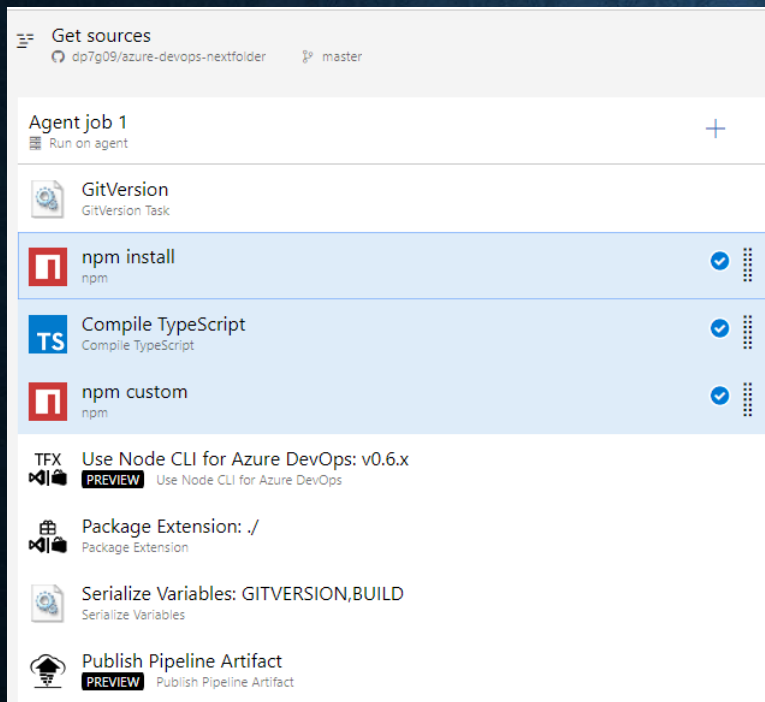
 dp7g09 Merge pull request #5 from dp7g09/dp7g09-patch-1 ...

Latest commit 635f188 an hour ago

 images	Add initial implementation of build/release task.	9 days ago
 nextFolderNameTask	Specify tests for npm.	4 days ago
 .gitignore	Initial commit	9 days ago
 LICENSE	Initial commit	9 days ago
 README.md	Update README.md	an hour ago
 vss-extension.json	Update name.	9 days ago

```
1 import tl = require('azure-pipelines-task-lib/task');
2 import { getDirItems } from './NextNameGenerator';
3
4 async function run() {
5   ... try {
6     ... const folderToCheck: string = tl.getInput('folderToCheck', true);
7     ... const folderNamePrefix: string = tl.getInput('folderNamePrefix', true);
8
9     ... var nextFolderName = getDirItems(folderToCheck, folderNamePrefix);
10    ... tl.setVariable('NFN.NextFolderName', nextFolderName, false);
11    ... }
12    ... catch (err) {
13      ... tl.setResult(tl.TaskResult.Failed, err.message);
14    ... }
15  }
```


CI-CD WITH AZURE DEVOPS



The screenshot shows the configuration for 'Agent job 1' in Azure DevOps. The job is set to 'Run on agent' and is associated with the repository 'dp7g09/azure-devops-nextfolder' at the 'master' branch. The pipeline consists of several tasks:

- Get sources**: dp7g09/azure-devops-nextfolder, master
- GitVersion**: GitVersion Task
- npm install**: npm (Status: Success)
- Compile TypeScript**: Compile TypeScript (Status: Success)
- npm custom**: npm (Status: Success)
- TFX Use Node CLI for Azure DevOps: v0.6.x**: Use Node CLI for Azure DevOps (Status: Preview)
- Package Extension: ./**: Package Extension
- Serialize Variables: GITVERSION,BUILD**: Serialize Variables
- Publish Pipeline Artifact**: Publish Pipeline Artifact (Status: Preview)

How to compile & test

To compile

```
cd .\azure-devops-nextfolder2\nextFolderNameTask
npm install
tsc
```

To test (after compiling)

```
cd .\azure-devops-nextfolder2\nextFolderNameTask
npm test
```


VERSIONING


Get sources


dp7g09/azure-devops-nextfolder master


Agent job 1


Run on agent


 **GitVersion**
GitVersion Task


 **npm install**
npm


 **Compile TypeScript**
Compile TypeScript

 **npm custom**
npm

 **Use Node CLI for Azure DevOps: v0.6.x**
PREVIEW Use Node CLI for Azure DevOps

 **Package Extension: ./**
Package Extension

 **Serialize Variables: GITVERSION,BUILD**
Serialize Variables

 **Publish Pipeline Artifact**
PREVIEW Publish Pipeline Artifact

Extension.OutputPath

Overrides manifest ^

Publisher ID ⓘ

Extension ID ⓘ

Extension Tag ⓘ

Extension name ⓘ

Extension version ⓘ

\$(GitVersion.SemVer)

☒ **Override tasks version** ⓘ

Override Type ⓘ


Replace Major, Minor, Patch (x.y.r)


☐ **Override task id** ⓘ


RELEASE TO MARKETPLACE


Release to MarketPlace
Deployment process

Agent job
Run on agent

 Deserialize Variables: **\meta.json
Deserialize Variables

 Delete files from \$(System.DefaultWorkingDirectory)/Nex...
Delete Files

 Use Node CLI for Azure DevOps (tfx-cli): v0.6.x
PREVIEW Use Node CLI for Azure DevOps (tfx-cli)

 Publish Extension
Publish Extension

Connect to * ⓘ
☒ Visual Studio Marketplace ☐ Azure DevOps Server

Visual Studio Marketplace connection * ⓘ | [Manage](#)

Azure-DevOps-MarketPlace-Connection

Extension manifest ^

Input file type *
☐ Extension manifest file ☒ VSIX file

VSIX file * ⓘ
\$(System.DefaultWorkingDirectory)/NextFolderTask-Build/next-folder-task/

Publisher ID ⓘ

Extension ID ⓘ

Extension Tag ⓘ

Extension name ⓘ

Extension version ⓘ
\$(GitVersion.SemVer)

☒ Override task version ⓘ

TESTING OUR EXTENSION

https://marketplace.visualstudio.com/items?itemName=dp7g09.next-folder-task

Visual Studio | Marketplace

Dushyant Priyadarshree (dp7g09)

Azure DevOps > Azure Pipelines > Folder Name Generator



Folder Name Generator | Reports | Manage

Dushyant Priyadarshree | 1 install | ★★★★★ (0) | Free

Set Azure DevOps variable(s) with next folder name incremented from existing names. E.g. RC3, if RC1 & RC2 already exist.

Get it free

Overview

Q & A

Rating & Review

Azure-devops-nextfolder

Azure DevOps Build/Release Task. Set Azure DevOps variable NFN.NextFolderName with next folder name incremented from existing names. E.g. RC3, if RC1 & RC2 already exist.

TESTING OUR EXTENSION

Agent job 1

Run on agent



Check C:\ for existing folders with prefix RC.

Next Folder Task



PowerShell Script

PowerShell

Display name *

Check C:\ for existing folders with prefix RC.

Folder to check. *



C:\

Prefix of folder. *



RC

Control Options ▾

Output Variables ▾

TESTING OUR EXTENSION

Agent job 1
Run on agent

Check C:\ for existing folders with prefix RC.
Next Folder Task

PowerShell Script
PowerShell

Display name *

PowerShell Script

Type ⓘ
☐ File Path ☒ Inline

Script * ⓘ

Write your powershell commands here.

Write-Host "Hello World"
Write-Host "NFN.NextFolderName = \$(NFN.NextFolderName)"
Use the environment variables input below to pass secret variables to this script.

TESTING OUR EXTENSION

Agent job 1 Job

Pool: Hosted VS2017 · Agent: Hosted Agent

- ✓ Prepare job · succeeded
- ✓ Initialize Job · succeeded
- ✓ Checkout · succeeded
- ✓ Check C:\ for existing folders with prefix RC. · succeeded
- ✓ PowerShell Script · succeeded
- ✓ Post-job: Checkout · succeeded
- ✓ Finalize Job · succeeded
- ✓ Report build status · succeeded

```
##[debug]Evaluating condition for step: 'Check C:\ for existing folders with prefix RC.'  
##[debug]Evaluating: succeeded()  
##[debug]Evaluating succeeded:  
##[debug]> True  
##[debug]Result: True  
##[section]Starting: Check C:\ for existing folders with prefix RC.
```

```
=====  
Task       : Next Folder Task  
Description : Generate the next folder name on basis of an increment viz. RC3 if RC1, RC2 are present.  
Version    : 0.1.2  
Author     : Dushyant Priyadarshree  
Help      :  
=====
```

```
##[debug]agent.TempDirectory=D:\a\_temp  
##[debug]loading inputs and endpoints  
##[debug]loading ENDPOINT_AUTH_PARAMETER_SYSTEMVSSCONNECTION_ACCESSTOKEN  
##[debug]loading ENDPOINT_AUTH_SCHEME_SYSTEMVSSCONNECTION  
##[debug]loading ENDPOINT_AUTH_SYSTEMVSSCONNECTION
```

```
NewName is: RC1  
##[debug]set NFN.NextFolderName=RC1  
##[debug]Processed: ##vso[task.setvariable variable=NFN.NextFolderName;issecret=false;]RC1  
##[section]Finishing: Check C:\ for existing folders with prefix RC.
```


“

THANK YOU

”

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