

ALM for Power Platform with GitHub (Beginner)

Raphael Pothin – 2022-11-03

#FromZeroToHeroes



Who am I?



Microsoft Bizapps MVP
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Agenda



GitHub, the basics



Power Platform CLI & GitHub Actions

GitHub, the basics

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Save configurations and code

Search or jump to...

Pull requests

Issues

Marketplace

Explore

rpothin / PowerPlatform-ALM-With-GitHub-Template

Public template

Unpin

Unwatch 9

Fork 2

Star 28

<> Code

Issues 9

Pull requests

Discussions

Actions

Projects 1

Security

Insights

Settings

main 1 branch 4 tags

Go to file

Add file

<> Code

Use this template

About

dependabot[bot] and rpothin

Bump tj-actions/changed-files from 29.0.7 to 29.0.9

b242261 yesterday 1,166 commits

.github

Bump tj-actions/changed-files from 29.0.7 to 29.0.9

yesterday

Configurations

#235 - Replace languageDisplayName configuration by languageCode

2 months ago

Documentation

#222 - Small correction in Repository-Setup documentation

2 months ago

Scripts

#222 - Update Repository-Setup documentation

2 months ago

.all-contributorsrc

docs: add rpothin as a contributor (#50)

2 years ago

.gitignore

[Bug 🐛][156] Add rule in ".gitignore" to ignore the "pac/" folder (#158)

8 months ago

CHANGELOG.md

#222 - v0.4.0 updates in Changelog

2 months ago

CODE_OF_CONDUCT.md

#152 - Update of CODE_OF_CONDUCT

6 months ago

CONTRIBUTING.md

Update Contributing guide

11 months ago

LICENSE

#227 - Update years in copyright header in code files

3 months ago

README.md

#222 - General updates on documentation

2 months ago

README.md

Template repository for the ALM of Power Platform solutions with GitHub

powershell

github-actions

power-platform

Readme

MIT license

Code of conduct

28 stars

9 watching

2 forks

Releases

4 tags

Create a new release

Contributors 3

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Organize work

rpothin / Projects / PowerPlatform-ALM-With-GitHub-Template

Search or jump to...

PowerPlatform-ALM-With-GitHub-Template

Work in current and upcoming Iterations / Milestones

Board

New view

-iteration:<@current 20

| Title | Labels | Status |
|--|----------------------------|-----------------|
| 0.5.0 3 Aug 10 - Sep 30 Current | | |
| 36 [Technical Debt] Remove workarounds regarding unpack and pack of canvas apps #226 | standby technical debt | Planned |
| 37 [Improvement] Global configuration with default value to "false" for "force-overwrite" input of "import-solution" action #237 | enhancement technical debt | Planned |
| 38 [Idea] Add canvas apps testing management in GitHub workflows #245 | enhancement | Planned |
| + Add item | | |
| No Iteration 17 | | |
| 39 [Idea] Add a devcontainer to the repository to enable the usage of GitHub Codespaces | | Not Yet Planned |
| 40 [Idea] Automate the generation of deployment settings files for the different environments during solution export if they don't | | Not Yet Planned |
| 41 [Idea] Validation of the consistency of the schema of the deployment settings files during the pull request validation process | | Not Yet Planned |
| 42 [Idea] Management of multiple solutions in a development cycle (issue to production) | | Not Yet Planned |
| 43 [Improvement] Unit tests for PowerShell code using Pester | | Not Yet Planned |
| 44 [Improvement] Tests of GitHub workflows using GitHub CLI in a GitHub workflow | | Not Yet Planned |
| 45 [Idea] Update release candidate deployment process #201 | enhancement exploration | Not Yet Planned |

Continuously improve quality and security

The screenshot shows the GitHub interface for a repository named 'rpothin / From-Zero-To-Heroes-Dependabot-Demo'. The 'Security' tab is selected, displaying 'Dependabot alerts'. There are 5 open alerts and 0 closed alerts. The alerts are listed in a table with columns for Package, Ecosystem, Manifest, Severity, and Sort. The alerts are as follows:

| Package | Ecosystem | Manifest | Severity | Sort |
|--|-----------|------------------------------|----------|-------------------------|
| Command Injection in hot-formula-parser | npm | javascript/package-lock.json | Critical | #1 opened 2 minutes ago |
| Command Injection in lodash | npm | javascript/yarn.lock | High | #5 opened 2 minutes ago |
| Command Injection in lodash | npm | javascript/package-lock.json | High | #3 opened 2 minutes ago |
| Regular Expression Denial of Service (ReDoS) in lodash | npm | javascript/yarn.lock | Moderate | #4 opened 2 minutes ago |
| Regular Expression Denial of Service (ReDoS) in lodash | npm | javascript/package-lock.json | Moderate | #2 opened 2 minutes ago |

Below the table, there is a note: 'Dependabot alerts surface known security vulnerabilities in some dependency manifest files. Dependabot security updates automatically keep your application up-to-date by updating dependencies in response to these alerts. Dependabot version updates can also help keep dependencies updated.'

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Automate everything

The screenshot shows a GitHub repository page for `rpothin / PowerPlatform-ALM-With-GitHub-Template-Demo`. The `Actions` tab is selected, displaying a workflow run titled `Work/227 3-solution-quality-check-on-pr #69`. The workflow status is `Success`, with a total duration of `9m 41s` and `2` artifacts. The workflow diagram shows a sequence of steps: `pre-job` (9s), `c... / Create Dataverse e...` (2m 56s), `b... / Build managed solu...` (2m 23s), and `delete-build-environment` (2m 13s). A branch from the third step leads to `solution-quality-checks` (3m 13s). The left sidebar lists the jobs: `pre-job`, `create-b... / Create Dataverse environment`, `build-managed... / Build managed solution`, `solution-quality-checks`, and `delete-build-environment`. The bottom section is labeled `Artifacts`.

Search or jump to... Pull requests Issues Marketplace Explore

rpothin / PowerPlatform-ALM-With-GitHub-Template-Demo Public

generated from rpothin/PowerPlatform-ALM-With-GitHub-Template

<> Code Issues Pull requests **Actions** Security Insights Settings

Work/227 3-solution-quality-check-on-pr #69 Latest #2

Summary

Jobs

- pre-job
- create-b... / Create Dataverse environment
- build-managed... / Build managed solution
- solution-quality-checks
- delete-build-environment

Re-run triggered 2 months ago

| | Status | Total duration | Artifacts |
|-----------------------|---------|----------------|-----------|
| rpothin #228 work/227 | Success | 9m 41s | 2 |

solution-quality-check-on-pr.yml
on: pull_request

pre-job 9s → c... / Create Dataverse e... 2m 56s → b... / Build managed solu... 2m 23s → delete-build-environment 2m 13s

solution-quality-checks 3m 13s

Artifacts

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Power Platform CLI & GitHub Actions

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What is CLI?



```
# Examples of basic CLI commands
```

```
# List the directory (folder) system  
ls
```

```
# Move to 'Temp' subfolder  
cd ".\Temp"
```

Power Platform CLI



Solution export

```
pac solution export --path c:\Users\Documents\Solution.zip --name SampleComponentSolution --managed true --include general
```

Solution unpack

```
pac solution unpack --zipfile C:\SampleSolution.zip --folder .\SampleSolutionUnpacked\.
```

Create settings

```
pac solution create-settings --solution-zip C:\SampleSolution.zip --settings-file .\SampleDeploymentSettingsDev.json
```

Power Platform GitHub actions

The screenshot shows the GitHub repository page for `microsoft/powerplatform-actions`. The repository is public and has 25 watchers, 43 forks, and 112 stars. The main navigation bar includes links for Code, Issues (2), Pull requests (1), Discussions, Actions, Security, and Insights. A prominent blue banner at the top encourages users to "Use this GitHub Action with your project" and provides a "View on Marketplace" button. Below the banner, the repository's branch structure is shown, including the `main` branch, 9 other branches, and 29 tags. A list of recent commits is displayed, showing updates to various workflow files and actions. The right sidebar contains an "About" section describing the repository's purpose, a list of repository files (Readme, MIT license, Code of conduct), and a "Releases" section with 24 releases.

Search or jump to... Pull requests Issues Marketplace Explore

microsoft / powerplatform-actions Public

Unwatch 25 Fork 43 Starred 112

<> Code Issues 2 Pull requests 1 Discussions Actions Security Insights

Use this GitHub Action with your project
Add this Action to an existing workflow or create a new one. View on Marketplace

main 9 branches 29 tags

Go to file Add file <> Code

davidjenni and david@DAVID-PC update to latest pac CLI 1.18.4; update data expo... 4ab5c26 6 days ago 206 commits

| | | |
|------------------------|--|--------------|
| .azure-pipelines | Add SBOM generation task (#157) | 9 months ago |
| .github/workflows | August refresh, pac CLI 1.18.x | 8 days ago |
| .vscode | add publish solution customizations action (#26) | 2 years ago |
| add-solution-component | Add solution component action initial release (#233) | 23 days ago |
| backup-environment | Deprecate usage of targetVersion parameter for export-solution and cl... | 5 months ago |
| branch-solution | branch-solution action option to allow clobbering the target branch i... | 2 years ago |
| build | add 3rd party notices and post-processing script (#160) | 9 months ago |
| check-solution | check-solution: adopt cli-wrapper with artifactstore | 4 months ago |
| clone-solution | Deprecate usage of targetVersion parameter for export-solution and cl... | 5 months ago |
| copy-environment | add sovereign cloud authentication support | 6 months ago |
| create-environment | July refresh | last month |

About

Power Platform GitHub Actions automate common build and deployment tasks related to Power Platform. This includes synchronization of solution metadata (a.k.a. solutions) between development environments and source control, generating build artifacts, deploying to downstream environments, provisioning/de-provisioning of environments, and the abil...

github-actions powerplatform

Readme MIT license Code of conduct 112 stars 25 watching 43 forks

Releases 24

Questions?

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Thank You!
And see you next week 😊

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