





Github Actions for the Mac Admin

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Jon Crain

Senior Client Platform Engineer, Unity

@joncrain on Slack

joncra.in





**We believe the world is a better place
with more creators in it.**



What is Github Actions?



“GitHub Actions is a continuous integration and continuous delivery (CI/CD) platform that allows you to automate your build, test, and deployment pipeline.”

— docs.github.com



What *is* it?

-> AUTOMATION

Run tasks to do things in GitHub (or outside) based on events from GitHub (or on a schedule)

-> CLOUD RESOURCES

Public repositories have unlimited Windows, Linux or macOS runners. Anything you can do on a (headless) Mac, you can do in a runner.*

-> YAML

Creating an action is as simple as writing a few lines of YAML. You can also use predefined code snippets from the GitHub Actions marketplace.


```
name: Octo Organization CI
```

```
on:
```

```
  push:
```

```
    branches: [ $default-branch ]
```

```
  pull_request:
```

```
    branches: [ $default-branch ]
```

```
jobs:
```

```
  build:
```

```
    runs-on: ubuntu-latest
```

```
    steps:
```

```
      - uses: actions/checkout@v2
```

```
      - name: Run a one-line script
```

```
        run: echo Hello from Octo Organization
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```
1  name: AutoPkg Run
2
3  on:
4    schedule:
5      - cron: '0 3 * * 1-5' # At 3am UTC on Monday, Tuesday, Wednesday, Thursday, and Friday
6  workflow_dispatch: # manually triggered
7    inputs:
8      recipe:
9        description: Recipe to Run (Optional)
10       required: false
11
12  jobs:
13    AutoPkg:
14      runs-on: macos-latest
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4    schedule:
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7      inputs:
8        recipe:
9          description: Recipe to Run (Optional)
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12  jobs:
13    AutoPkg:
14      runs-on: macos-latest
```




Demo



Build Releases



Build Releases

MUNKIPKG

- Create a release when new code is pushed.
- Utilize a shared secret for the macOS Code Signing Certificate and sign the builds.

XCODE

- Build your Xcode project.
- Notarize your applications
- Run tests
- Staple your applications

UNITY

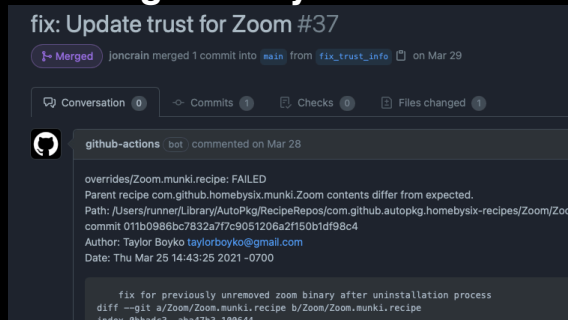
- Build your Unity projects on GitHub Actions!



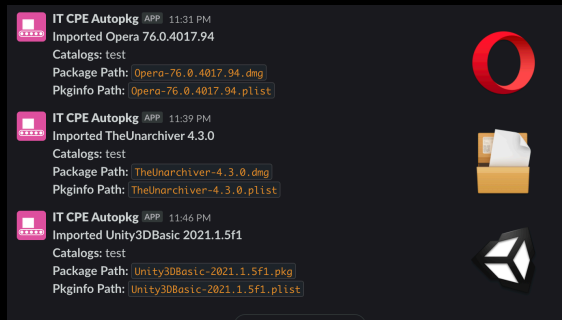
AutoPkg



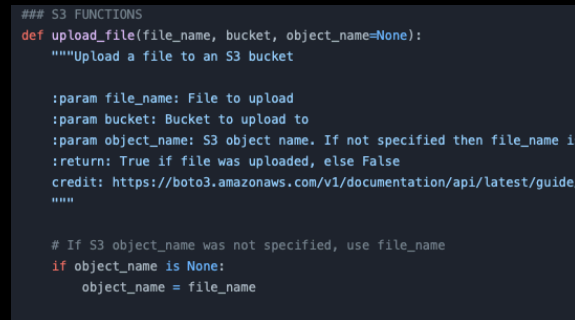
AutoPkg at Unity



-> AUTOMATIC PULL REQUESTS



-> SLACK NOTIFICATIONS



-> DEPLOY TO S3



Demo



Other Stuff



Other Stuff

- Pre-commit
- Lint repo or specific files
- Munki repo clean
- Update GitHub from MDM API
- Update MDM from GitHub
- Push data to Google Sheet
- Deploy to S3 (or other cloud bucket)

Resources

MDOYVR19 - Elliot Jordan - Intro to Pre-Commit: <https://www.youtube.com/watch?v=1UCyGC6DVOU>

MDOYVR20 - William Theaker - Running Autopkg with GitHub Actions: <https://www.youtube.com/watch?v=bvTO8rNDqX0>

Gusto AutoPkg Tools: <https://github.com/Gusto/it-cpe-opensource/tree/master/autopkg>

MunkPkg Action: <https://github.com/joncrain/munkipkg-action>

MunkiPkg Action Demo Repo: <https://github.com/joncrain/test-munki-pkg>

AutoPkg Demo Repo: <https://github.com/joncrain/autopkg-ci>

Xcode Actions: <https://github.com/marketplace?type=actions&query=xcode>

and more at <https://github.com/joncrain/utah-gh-actions>



**Thank
you**

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