

Intro to GitHub Actions

"Automate Yourself Away"

Who's that guy in front of you?



[mastodon.social/stefanzweifel](https://mastodon.social/@stefanzweifel)



@_stefanzweifel



stefanzweifel.dev

What is GitHub Actions?

Continuous what?

"continuous integration and continuous delivery" – often abbreviated with "CI/CD" – is a "system" or method to deliver apps to customers frequently by using automation.

YAML

Stored in

.github/workflows/

```
name: run-tests

on: [push]

jobs:
  test:
    name: PHP 8.2
    runs-on: ubuntu-latest
    steps:
      - name: Check out code
        uses: actions/checkout@v3

      - name: Setup PHP
        uses: shivammathur/setup-php@v2
        with:
          php-version: 8.2

      - name: Install composer Dependencies
        uses: ramsey/composer-install@v2

      - name: Execute tests
        run: vendor/bin/pest
```

```
name: run-tests

on: [push]

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        uses: shivammathur/setup-php@v2
        with:
          php-version: 8.2

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    steps:
      - name: Check out code
        uses: actions/checkout@v3

      - name: Setup PHP
        uses: shivammathur/setup-php@v2
        with:
          php-version: 8.2

      - name: Install composer Dependencies
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        uses: actions/checkout@v3

      - name: Setup PHP
        uses: shivammathur/setup-php@v2
        with:
          php-version: 8.2

      - name: Install composer Dependencies
        uses: ramsey/composer-install@v2

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        with:
          php-version: 8.2

      - name: Install composer Dependencies
        uses: ramsey/composer-install@v2

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```
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      - name: Setup PHP
        uses: shivammathur/setup-php@v2
        with:
          php-version: 8.2

      - name: Install composer Dependencies
        uses: ramsey/composer-install@v2

      - name: Execute tests
        run: vendor/bin/pest
```

GitHub Actions *Actions*

```
ame: run-tests

n: [push]

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  test:
    name: PHP 8.2
    runs-on: ubuntu-latest
  steps:
    - name: Check out code
      uses: actions/checkout@v3

    - name: Setup PHP
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      with:
        php-version: 8.2

    - name: Install composer Dependencies
      uses: ramsey/composer-install@v2

    - name: Execute tests
      run: vendor/bin/pest
```

▶ Use this GitHub Action with your project

Add this Action to an existing workflow or create a new one.

[View on Marketplace](#)

 master ▾

 8 branches

 117 tags

[Go to file](#)

[Add file ▾](#)

[Code ▾](#)

 README.md



Setup PHP in GitHub Actions

 Main workflow  passing  coverage  100%  license  MIT  php  5.3 to 8.3

 reddit [join](#)  twitter [follow](#)  status  subscribe

#StandWithUkraine 

Setup PHP with required extensions, php.ini configuration, code-coverage support and various tools like composer in [GitHub Actions](#). This action gives you a cross-platform interface to set up the PHP environment you need to test your application. Refer to [Usage](#) section and [examples](#) to see how to use this.

About

GitHub action to set up PHP with extensions, php.ini configuration, coverage drivers, and various tools.

 [setup-php.com](#)


 Readme

 MIT license

 Code of conduct

 Security policy

 2.5k stars

 27 watching

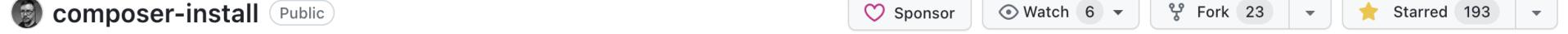
 308 forks

[Report repository](#)

Releases 114

  
2 weeks ago

[+ 113 releases](#)



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

[View on Marketplace](#)

v2 ▾ 2 branches 16 tags [Go to file](#) [Add file ▾](#) [Code ▾](#)

README.md

ramsey/composer-install

A GitHub Action to streamline installation of PHP dependencies with Composer.

[source](#) [ramsey/composer-install](#) [license](#) MIT [build](#) passing [codecov](#) 84%

About

ramsey/composer-install is a GitHub Action to streamline installation of Composer dependencies in workflows. It installs your Composer dependencies and caches them for improved build times.

This project adheres to a [code of conduct](#). By participating in this project and its community, you are expected to uphold this code.

About

A GitHub Action to streamline installation of PHP dependencies with Composer.

[php](#) [composer](#) [install](#) [cache](#)
[github-actions](#)

Readme
 MIT license
 Code of conduct
 Security policy
 193 stars
 6 watching
 23 forks
[Report repository](#)

Releases 16

[2.2.0](#) [Latest](#)
on Nov 4, 2022

Create your own Actions

- Bash
- Typescript
- Docker
- PHP, Rust,
Python, ...

Types

Apps

Actions

x

Categories

API management

Chat

Code quality

Code review

Continuous integration

Dependency management

Deployment

IDEs

Learning

Localization

Mobile

Monitoring

Search for apps and actions

Sort: Best Match ▾

Actions

An entirely new way to automate your development workflow.

18944 results filtered by Actions x

Actions



Upload a Build Artifact

By actions

Upload a build artifact that can be used by subsequent workflow steps

2.3k stars



First interaction

By actions

Greet new contributors when they create their first issue or open their first pull request

612 stars



Close Stale Issues

By actions

Close issues and pull requests with no recent activity

998 stars



Setup Node.js environment

By actions

Setup a Node.js environment by adding problem matchers and optionally downloading and adding it to the PATH

3k stars



Setup Java JDK

By actions

Set up a specific version of the Java JDK and add the command-line tools to the PATH

1.2k stars



Download a Build Artifact

By actions

Download a build artifact that was previously uploaded in the workflow by the upload-artifact action

986 stars

Recap #1

- continuous integration platform
- Write your own Workflows with YAML
- Use Actions made by others to simplify your Workflows

Events

- `push`: When you push a commit or tag.
- `pull_request`: When activity on a pull request occurs.
- `release`: When release activity on a repository occurs. (eg. when a new release has been published)
- `repository_dispatch`: To trigger a workflow through the GitHub API.
- `workflow_dispatch`: To trigger a workflow through the GitHub UI or GitHub CLI.
- `schedule`: To trigger a workflow at a scheduled time.

```
name: run-tests

on:
  push:
    branches:
      - 'main'
      - 'releases/**'

jobs:
  test:
    name: PHP 8.2
    runs-on: ubuntu-latest
    steps:
      - name: Check out code
        uses: actions/checkout@v3

      - name: Setup PHP
        uses: shivammathur/setup-php@v2
        with:
          php-version: 8.2

      - name: Install composer Dependencies
        uses: ramsey/composer-install@v2

      - name: Execute tests
        run: vendor/bin/pest
```

pull_request -Event

```
name: run-tests

on:
  pull_request:
    types: [opened]

jobs:
  test:
    name: PHP 8.2
    runs-on: ubuntu-latest
    steps:
      - name: Check out code
        uses: actions/checkout@v3

      - name: Setup PHP
        uses: shivammathur/setup-php@v2
        with:
          php-version: 8.2

      - name: Install composer Dependencies
        uses: ramsey/composer-install@v2

      - name: Execute tests
        run: vendor/bin/pest
```

release -Event

```
  : Ping Private Composer Registry

  .please

  :
  .ng:
  runs-on: ubuntu-latest

  steps:
    - name: Trigger new deployment of private composer registry
      run: curl ${{ secrets.DEPLOY_TRIGGER_URL_FOR_PRIVATE_COMPOSER_REGISTRY }}
```

```
name: "Update Changelog"

on:
  release:
    types: [released]

jobs:
  update:
    runs-on: ubuntu-latest

  steps:
    - name: Checkout code
      uses: actions/checkout@v3
      with:
        ref: main

    - name: Update Changelog
      uses: stefanzweifel/changelog-updater-action@v1
      with:
        release-notes: ${{ github.event.release.body }}
        latest-version: ${{ github.event.release.name }}

    - name: Commit updated CHANGELOG
      uses: stefanzweifel/git-auto-commit-action@v4
      with:
        branch: main
        commit_message: Update CHANGELOG
        file_pattern: CHANGELOG.md
```

Live Demo

`repository_dispatch -`
`Event`

Private < > M

sentry.io

SENTRY

PRODUCT > PRICING DOCS RESOURCES BLOG SANDBOX SIGN IN GET STARTED

Working Code, Happy Customers

Take action on broken lines of code, crashes, and busted API calls with the only developer-first app monitoring platform built to give you answers - not clues.

Nearly 4M developers and 90K organizations rely on Sentry to see what actually matters, solve what's urgent faster, and learn continuously about their code.

TRY SENTRY FOR FREE REQUEST A DEMO

TRY SENTRY FOR FREE REQUEST A DEMO

stefanzweifel.sentry.io

Releases

screeenly-3 | All Envs | 14D

Search by version, build, package, or stage

Status: Active | Sort By: Date Created | Display: Sessions

Version	Author	Date	Project Name	Adoption	24H 14D	Crash Free Rate	Crashes	New Issues
70bd984f24bf	D SZ	5 days ago prod	screeenly-3	0%	-----	-----	-----	0
30db0687d3d5	SZ	a month ago prod	screeenly-3	0%	-----	-----	-----	0
302fd48183f7		a month ago stag	screeenly-3	0%	-----	-----	-----	0
ece1de4e462c		a month ago stag	screeenly-3	0%	-----	-----	-----	0
86a13178bbfe	D	a month ago stag	screeenly-3	0%	-----	-----	-----	0
58e58cc44398		2 months ago prod	screeenly-3	0%	-----	-----	-----	0
4519821969fb	D SZ	2 months ago prod	screeenly-3	0%	-----	-----	-----	0

```
name: Release Tracking

on:
  repository_dispatch:
    types: [deployer_deployment]

jobs:
  release-tracking:
    runs-on: ubuntu-latest
    steps:
      - name: Checkout code
        uses: actions/checkout@v3

      - name: Create Sentry release
        uses: getsentry/action-release@v1
        env:
          SENTRY_AUTH_TOKEN: ${{ secrets.SENTRY_AUTH_TOKEN }}
          SENTRY_ORG: stefanzweifel
          SENTRY_PROJECT: my-project-name
        with:
          environment: prod
          set_commits: auto
```

`workflow_dispatch -`
_
Event

Screenshot of a GitHub repository page showing the Actions tab and a manual workflow run.

The repository is `stefanzweifel / deployer-on-github-actions-example`. The Actions tab is selected.

Workflows

- Deploy (Manual)** (Selected)
- Deploy (Manual; Cache C...)
- Deploy (Manual; GitHub E...)
- Deploy (Push to Branch)
- Deploy (Release)
- Deploy (Schedule)
- Deployment (Manual; Extr...)

Deploy (Manual)
`deploy_manual.yml`

Filter workflow runs

1 workflow run

This workflow has a `workflow_dispatch` event trigger.

Run workflow

Deploy (Manual) #1: Manually run by stefanzweifel
32 minutes ago · 26s

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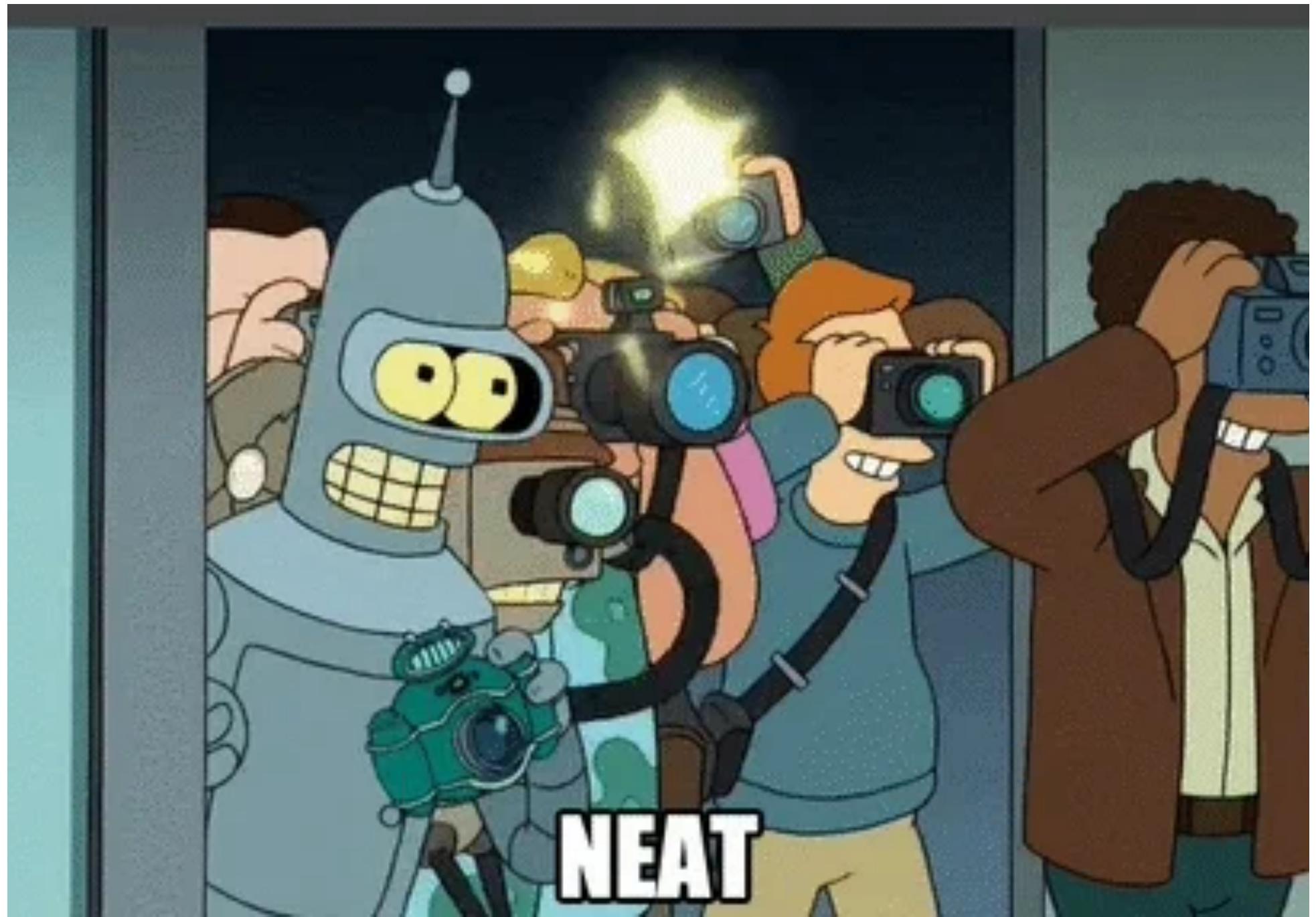
Live Demo

workflow_run -Event

```
name: Merge me!

on:
  workflow_run:
    types:
      - completed
  workflows:
    - 'Tests'

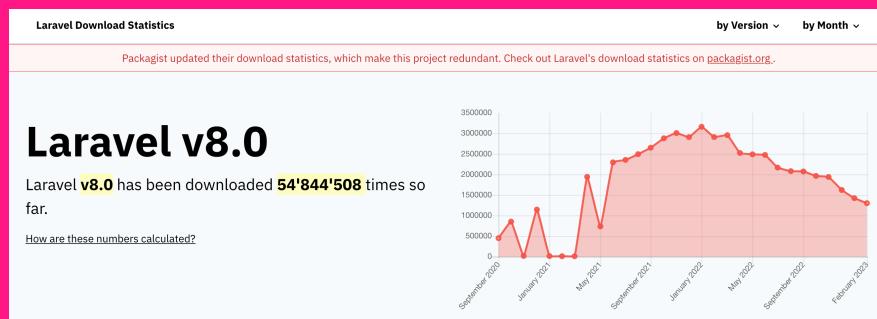
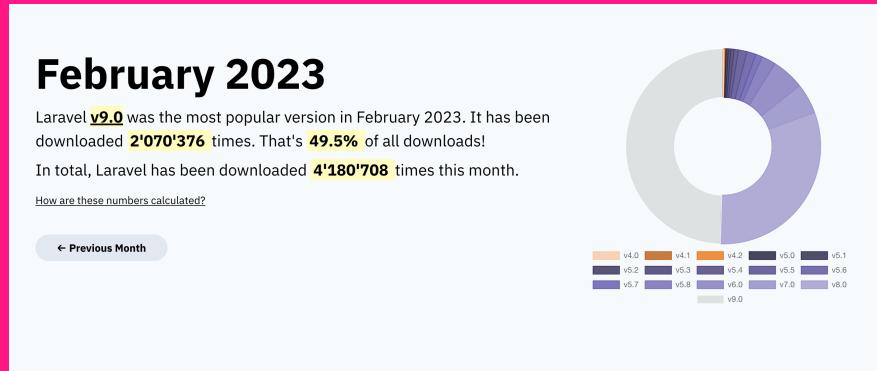
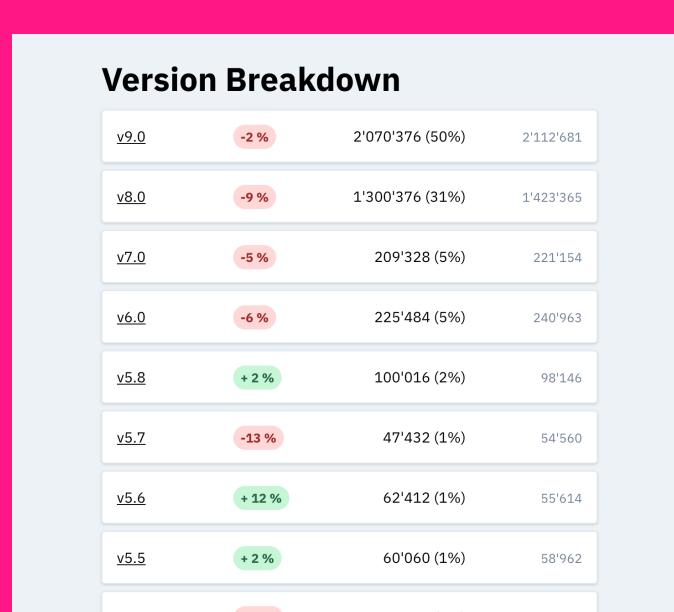
jobs:
  merge-me:
    name: Merge me!
    runs-on: ubuntu-latest
    steps:
      if: ${{ github.event.workflow_run.conclusion == 'success' }}
      name: Merge me!
      uses: ridedott/merge-me-action@v2
      with:
        GITHUB_TOKEN: ${{ secrets.AUTO_MERGE_PR_TOKEN }}
        PRESET: DEPENDABOT_MINOR
```



NEAT

schedule -Event

laravel-download-statistics.stefanzweifel.io



```
name: New Monthly Build

'on':
  workflow_dispatch: null
  schedule:
    - cron: 15 1 1 * *

jobs:

  update-data-set:
    runs-on: ubuntu-latest
    steps:
      - name: Checkout code
        uses: actions/checkout@v3

      - name: Setup PHP
        uses: shivammathur/setup-php@v2
        with:
          php-version: 7.4

      - name: Install composer Dependencies
        uses: ramsey/composer-install@v2

      - name: Fetch Download Numbers and Create Export
        run: |
          cp .env.example .env
          php artisan key:generate
          php artisan app:fetch-downloads
          php artisan export

      - uses: stefanzweifel/git-auto-commit-action@v4
        with:
          commit_message: Update Data Set
          branch: master
```

Checking Backup Integrity

```
name: Validate Backup Integrity

on:
  workflow_dispatch:
  schedule:
    - cron: "0 14 1 * *"

jobs:
  restore-backup:
    name: Restore backup
    runs-on: ubuntu-latest
    services:
      mysql:
        image: mysql:latest
        env:
          MYSQL_ROOT_PASSWORD: password
          MYSQL_DATABASE: laravel
        ports:
          - 3306:3306
        options: --health-cmd="mysqladmin ping" --health-interval=10s --health-timeout=5s --health-retries=3

    steps:
      - name: Checkout code
        uses: actions/checkout@v3

      - name: Setup PHP
        uses: shivammathur/setup-php@v2
        with:
          php-version: 8.2

      - uses: ramsey/composer-install@v2

      - run: cp .env.example .env

      - run: php artisan key:generate

      - name: Restore Backup
        run: php artisan backup:restore --backup=latest --no-interaction
        env:
          APP_NAME: 'screeenly'
          DB_PASSWORD: 'password'
          AWS_ACCESS_KEY_ID: ${{ secrets.AWS_ACCESS_KEY_ID }}
          AWS_SECRET_ACCESS_KEY: ${{ secrets.AWS_SECRET_ACCESS_KEY }}
          AWS_DEFAULT_REGION: ${{ secrets.AWS_DEFAULT_REGION }}
          AWS_BACKUP_BUCKET: ${{ secrets.AWS_BACKUP_BUCKET }}
          BACKUP_ARCHIVE_PASSWORD: ${{ secrets.BACKUP_ARCHIVE_PASSWORD }}

      - name: Wipe Database
        run: php artisan db:wipe --no-interaction
        env:
          DB_PASSWORD: 'password'
```

Live Demo



NEAT

Matrix

```
name: run-tests

on: [push]

jobs:
  test:
    name: P${{ matrix.php }} - ${{ matrix.os }}
    runs-on: ${{ matrix.os }}
    strategy:
      matrix:
        os: [ubuntu-latest, windows-latest]
        php: [8.2, 8.1, 8.0]

    steps:
      - name: Check out code
        uses: actions/checkout@v3

      - name: Setup PHP
        uses: shivammathur/setup-php@v2
        with:
          php-version: ${{ matrix.php }}

      - name: Install composer Dependencies
        uses: ramsey/composer-install@v2

      - name: Execute tests
        run: vendor/bin/pest
```

← run-tests

✓ Only support x86_64 architecture (#68) #111

[Re-run all jobs](#)



Summary

Jobs

- ✓ P8 - L8.* - prefer-stable - ubun...
- ✓ P8 - L9.* - prefer-stable - ubun...
- ✓ P8.1 - L8.* - prefer-stable - ubu...
- ✓ P8.1 - L9.* - prefer-stable - ubu...
- ✓ P8.1 - L10.* - prefer-stable - ub...
- ✓ P8.2 - L8.* - prefer-stable - ub...
- ✓ P8.2 - L9.* - prefer-stable - ub...
- ✓ P8.2 - L10.* - prefer-stable - ub...

Run details

⌚ Usage

📄 Workflow file

Triggered via push 5 days ago

stefanzweifel pushed → e7efba4 [main](#)

Status

Success

Total duration

6m 21s

Artifacts

—

run-tests.yml

on: push

Matrix: test

- ✓ P8.1 - L10.* - prefer-stabl... 44s
- ✓ P8.1 - L8.* - prefer-stable... 33s
- ✓ P8.1 - L9.* - prefer-stable... 39s
- ✓ P8.2 - L10.* - prefer-stabl... 47s
- ✓ P8.2 - L8.* - prefer-stabl... 36s
- ✓ P8.2 - L9.* - prefer-stabl... 42s
- ✓ P8 - L8.* - prefer-stable -... 36s
- ✓ P8 - L9.* - prefer-stable -... 49s



**Make Jobs
depend on each
other**

```
name: run-tests

on: [push]

jobs:
  # `build` has no dependencies and runs first.
  build:
    name: Build
    steps:
      # ...

  # `deploy` runs, once `build` has finished.
  test:
    needs: build
    name: Test
    steps:
      # ...

  # `deploy` runs, once `build` and `test` completed successfully.
  deploy:
    needs: [build, test]
    name: Deploy
    steps:
      # ...
```



← Integrate

✓ Upgrade to Laravel 10 (#964) #1145

Re-run all jobs

...

Summary

Jobs

- Content Standards
- Build
- Validate RSS Feed
- Deployment Preview
- Deployment
- Delete Artifact in Dependabot ...

Run details

⌚ Usage

⬇ Workflow file

Triggered via push 2 days ago

👤 stefanzweifel pushed ⚡ 7a6619d main

Status

Success

Total duration

4m 48s

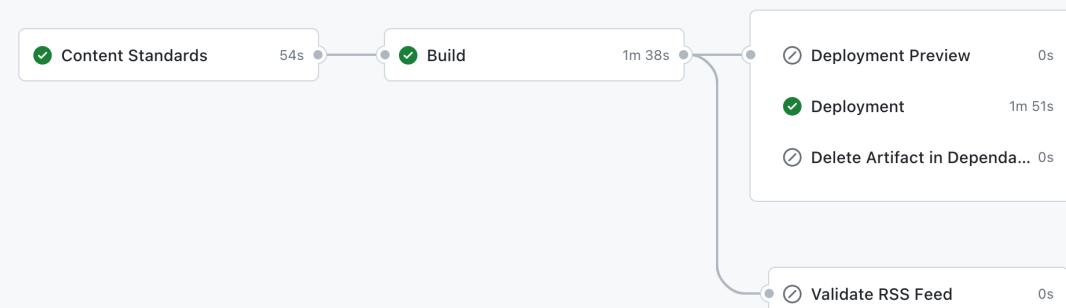
Billable time

5m

Artifacts

integrate.yml

on: push



[] - +



Live Demo

Reusable Workflows

```
name: Auto Merge Dependabot Pull Requests

on:
  workflow_call:
    secrets:
      MERGE_ME_GITHUB_TOKEN:
        required: false
        description: 'GitHub Token used to merge Pull Request.'

jobs:
  auto-merge:
    name: Auto Merge
    runs-on: ubuntu-latest

    steps:
      - name: Merge me!
        if: ${{ github.event.workflow_run.conclusion == 'success' }}
        uses: ridedott/merge-me-action@v2
        with:
          GITHUB_TOKEN: ${{ secrets.MERGE_ME_GITHUB_TOKEN }}
          PRESET: DEPENDABOT_MINOR
```

```
github/workflows/auto-merge.yml
: Merge me!

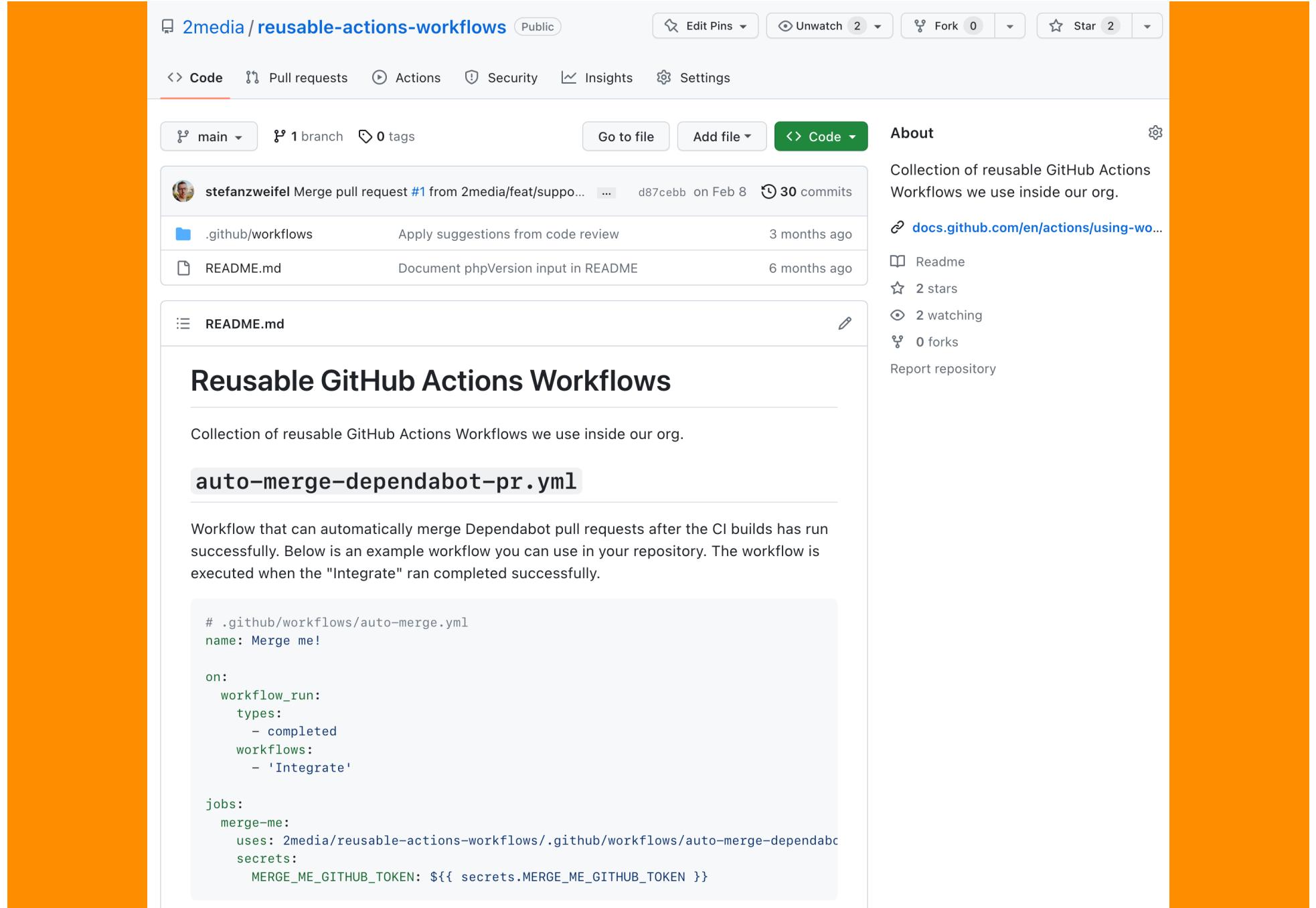
workflow_run:
  types:
    - completed
  workflows:
    - 'Integrate'

:
merge-me:
uses: org/reusable-actions-workflows/.github/workflows/auto-merge-dependabot-pr.yml@main
secrets:
  MERGE_ME_GITHUB_TOKEN: ${{ secrets.MERGE_ME_GITHUB_TOKEN }}
```

```
github/workflows/auto-merge.yml
: Merge me!

workflow_run:
  types:
    - completed
  workflows:
    - 'Integrate'

:
merge-me:
uses: org/reusable-actions-workflows/.github/workflows/auto-merge-dependabot-pr.yml@main
secrets:
  MERGE_ME_GITHUB_TOKEN: ${{ secrets.MERGE_ME_GITHUB_TOKEN }}
```

A screenshot of a GitHub repository page. The repository name is "2media/reusable-actions-workflows" and it is public. The page shows a merge request from "stefanzweifel" with 30 commits, a ".github/workflows" folder containing an "apply-suggestions" workflow, and a "README.md" file. The "Code" tab is selected. On the right, there's an "About" section with a description of the repository as a collection of reusable GitHub Actions Workflows, links to documentation, and repository statistics (2 stars, 2 watching, 0 forks). A large code block displays the "auto-merge-dependabot-pr.yml" workflow configuration.

2media / **reusable-actions-workflows** Public

Code Pull requests Actions Security Insights Settings

main 1 branch 0 tags Go to file Add file Code

stefanzweifel Merge pull request #1 from 2media/feat/support... d87cebb on Feb 8 30 commits

.github/workflows Apply suggestions from code review 3 months ago

README.md Document phpVersion input in README 6 months ago

README.md

Reusable GitHub Actions Workflows

Collection of reusable GitHub Actions Workflows we use inside our org.

auto-merge-dependabot-pr.yml

Workflow that can automatically merge Dependabot pull requests after the CI builds has run successfully. Below is an example workflow you can use in your repository. The workflow is executed when the "Integrate" ran completed successfully.

```
# .github/workflows/auto-merge.yml
name: Merge me!

on:
  workflow_run:
    types:
      - completed
    workflows:
      - 'Integrate'

jobs:
  merge-me:
    uses: 2media/reusable-actions-workflows/.github/workflows/auto-merge-dependabc
    secrets:
      MERGE_ME_GITHUB_TOKEN: ${{ secrets.MERGE_ME_GITHUB_TOKEN }}
```

A large orange rectangular redaction box covers the top portion of the GitHub repository interface.

A small orange rectangular redaction box covers the bottom portion of the GitHub repository interface.

[laravel / .github](#) Public

Edit Pins ▼ Watch 7 ▾ Fork 20 ▾ Star 44 ▾

Code Pull requests Actions Security Insights

Code

main + Go to file t

.github/workflows

- coding-standards.yml
- compile-assets.yml
- issues.yml
- pull-requests.yml
- update-changelog.yml

profile

README.md

.github / .github / workflows /

Add file ...

stefanzweifel [update-changelog] Always convert release_date to UTC (#9) f87baac · 3 months ago History

Name	Last commit message	Last commit date
..		
coding-standards.yml	Update coding-standards.yml	3 months ago
compile-assets.yml	Update compile-assets.yml	4 months ago
issues.yml	Update issues.yml	6 months ago
pull-requests.yml	Update pull-requests.yml	10 months ago
update-changelog.yml	[update-changelog] Always convert release_date to U...	3 months ago

Recap #2

- Workflows are triggered through Events
- Matrix
- Jobs can depend on other Jobs
- Reusable Workflows
- Parallel und Serial Execution



Thanks!

stefanzweifel.dev

mastodon.social/@stefanzweifel

twitter.com/_stefanzweifel

