Submit Copr builds by GitHub "push" actions

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Since [my last on-topic post](#) (mostly about GitHub's third-party CI provider [Travis CI](#)), another alternative for submitting RPM builds in Copr appeared on GitHub – [GitHub Actions](#).

Let's admit this fact now: From our perspective, GitHub Actions do not bring anything new into the game. Namely, we have Turing-complete language (good) and we still can not store **private tokens** (needed e.g. for Copr API token) that could be [used securely at the pull-request time](#) - that's bad, especially for Open Source projects.

But, yes, at least we don't have to use a third-party application for computational power, and the format of defining Actions (or "workflows") is (at least subjectively) simpler than before.

Setup the CI for GitHub push events

First, go to the GitHub project you maintain, and:

1. Go to the *Settings* menu.
2. Go to the *Actions* sub-menu.
3. Toggle the *Enable local and third party Actions for this repository* radio button option. This is needed to successfully run external `actions/checkout@v1` action.
4. Go to *Secrets* menu, and provide a *New Secret* named `COPR_API_TOKEN`, filled by contents of the [Copr API page](#) (login required).

Then go to the local clone of your project, and push an arbitrarily named `*.yml` file into `.github/workflows/` directory; with content similar to this one:

```yaml
---
name: RPM build in Fedora Copr
on:
  # Build only on pushes into master branch.
  push:
    branches: [master]

jobs:
  build:
    name: Submit a build from Fedora container
    # Run in Fedora container on Ubuntu VM (no direct Fedora support)
```

```
    container: fedora:latest
    runs-on: ubuntu-latest


    steps:
      - name: Check out proper version of sources
        uses: actions/checkout@v1

      - name: Install API token for copr-cli
        env:
          API_TOKEN_CONTENT: ${{ secrets.COPR_API_TOKEN }}
        run: |
          mkdir -p "$HOME/.config"
          echo "$API_TOKEN_CONTENT" > "$HOME/.config/copr"

      - name: Install tooling for source RPM build
        run: |
          dnf -y install @development-tools @rpm-development-tools
          dnf -y install copr-cli make

      - name: Build the source RPM
        run: cd rpm && make srpm

      - name: Submit the build by uploading the source RPM
        run: copr build praiskup/argparse-manpage-ci rpm/*.src.rpm
```

This is a simple example (or template) that needs some custom tweaks, namely packages and commands needed to build source RPM. But it is indeed enough in practice.

Having Actions as a 1:1 alternative for Travis CI, feel free to read the old post. You can implement the very same work-flow using Github Actions (perhaps for pull-requests, too).

Edit by 2021-11-26: Travis CI is starting to be very painful to use for FLOSS projects, therefore the argparse-manpage pull-request CI was eventually moved from Travis CI to GitHub Actions.

But this post provided a lot simpler, a "starter", Actions example.

Happy building!