

# **Actions y Workflows a nivel empresarial parte 1**

Sesión 9

# Agenda

- Políticas de uso
- Control de acceso y uso
- Componentes reusables de GitHub Actions
  - Workflow Templates
  - **Workflows Reusables**
  - **Reusar workflows entre repositorios de la misma cuenta empresarial**

# Políticas de uso

# Directivas (Policies) en GitHub Enterprise

- Puedes aplicar directivas para administrar la forma en la que ciertos productos de GitHub pueden utilizarse dentro de tu empresa.
- Las directivas empresariales controlan las opciones disponibles para los miembros de la empresa cuando utilizan GitHub Actions.
- 2 tipos de configuraciones:
  - A nivel de organización
  - A nivel de contenido

https://github.com/enterprises/virtualitos/settings/actions

Virtualitos

Overview Getting started Organizations People Policies Security Billing and licensing Settings Compliance Insights

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## Policies

- Repository
- Member privileges
- Codespaces
- Actions**
- Hosted compute networking
- Projects
- Advanced Security
- Personal access tokens
- Sponsors
- Models

Preview

### Actions

Policies Runners Runner groups

#### Policies

Actions can be enabled for all organizations or only for specific organizations. If disabled, GitHub Actions cannot run.

Enable for all organizations ▾

**Allow all actions and reusable workflows**  
Any action or reusable workflow can be used, regardless of who authored it or where it is defined.

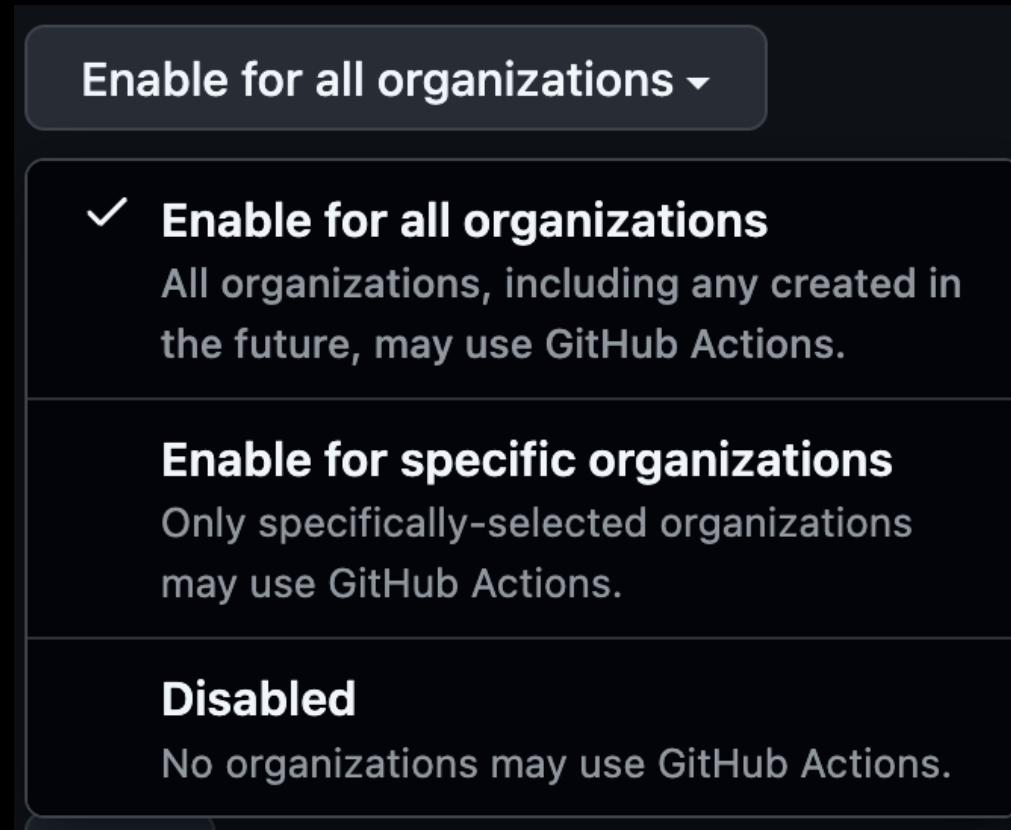
**Allow enterprise actions and reusable workflows**  
Any action or reusable workflow defined in a repository within the enterprise can be used.

**Allow enterprise, and select non-enterprise, actions and reusable workflows**  
Any action or reusable workflow that matches the specified criteria, plus those defined in a repository within the enterprise, can be used. [Learn more about allowing specific actions and reusable workflows to run.](#)

Save

# Configuración de directivas de uso (policies) de GitHub Actions en GitHub Enterprise Cloud

Las directivas pueden activarse para todas las organizaciones, algunas organizaciones, o ninguna organización.



Las tres opciones siguientes le permiten definir el nivel de restricción de GitHub Actions dentro de estas organizaciones.

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Any action or reusable workflow can be used, regardless of who authored it or where it is defined.

**Allow enterprise actions and reusable workflows**

Any action or reusable workflow defined in a repository within the enterprise can be used.

**Allow enterprise, and select non-enterprise, actions and reusable workflows**

Any action or reusable workflow that matches the specified criteria, plus those defined in a repository within the enterprise, can be used. [Learn more about allowing specific actions and reusable workflows to run.](#)

Save

La tercer opción permite habilitar acciones específicas que se usarán en la empresa, con opciones y combinaciones según el caso deseado.

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**Allow enterprise actions and reusable workflows**

Any action or reusable workflow defined in a repository within the enterprise can be used.

**Allow enterprise, and select non-enterprise, actions and reusable workflows**

Any action or reusable workflow that matches the specified criteria, plus those defined in a repository within the enterprise, can be used. [Learn more about allowing specific actions and reusable workflows to run.](#)

**Allow actions created by GitHub**

**Allow actions by Marketplace [verified creators](#)**

**Allow specified actions and reusable workflows**

```
actions/checkout@v4,  
monalisa/octocat@*
```

Wildcards, tags, and SHAs are allowed.

Action examples: `octo-org/octo-repo@*`, `octo-org/octo-repo@v2`

Reusable workflow examples: `octo-org/octo-repo/.github/workflows/build.yml@main`

Entire organization or repository examples: `octo-org/*`, `octo-org/octo-repo/*`

**Save**

# GitHub Actions puede habilitarse solo para repositorios específicos

**Actions**

Policies   Runners   Runner groups

**Policies**

Actions can be enabled for all organizations or only for specific organizations. If disabled, GitHub Actions cannot run.

**Enable for specific organizations ▾**

Filter organizations

**Select organizations (1)** Set organization permissions ▾

 virtualitosorg Disabled ▾

**Allow all actions and reusable workflows**  
Any action or reusable workflow can be used, regardless of who authored it or where it is defined.

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Any action or reusable workflow defined in a repository within the enterprise can be used.

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Any action or reusable workflow that matches the specified criteria, plus those defined in a repository within the enterprise, can be used. [Learn more about allowing specific actions and reusable workflows to run.](#)

**Save**

# GitHub Actions puede ser desactivado a nivel de toda la empresa

## Actions

Policies   Runners   Runner groups

### Policies

Actions can be enabled for all organizations or only for specific organizations. If disabled, GitHub Actions cannot run.

Disabled ▾

Allow all actions and reusable workflows

Any action or reusable workflow can be used, regardle



virtualitosorg / calculadora

Type / to sear

Allow enterprise actions and reusable workflow

Any action or reusable workflow defined in a repository

<> Code    Issues   Pull requests   Projects   Wiki   Security   Insights   Settings

Allow enterprise, and select non-enterprise, a

22 days left to try out Enterprise, GitHub Advanced Security and Copilot features. [Go to dashboard](#)

Any action or reusable workflow that matches the spec

[more about allowing specific actions and reusable wor](#)

calculadora   Public

Edit Pins ▾

Save

Como resultado, ¡no hay pestaña Actions en el repositorio!

# ¿Quién puede configurar las directivas?

- GitHub Enterprise owners
- Usuarios con el permiso “Manage organization Actions policies” a nivel de organización.

# Creación de rol personalizado, asignación a usuario y administración de GitHub Actions en la organización

Demo

## Ejemplo de GitHub Action que usa actions de GitHub y de terceros

```
name: Build and PDF

on:
  workflow_dispatch:

jobs:
  build-and-test:
    runs-on: ubuntu-latest

    steps:
      - uses: actions/checkout@v4

      - name: Setup .NET
        uses: actions/setup-dotnet@v4
        with:
          dotnet-version: '9.0.x'

      - name: Restore dependencies
        run: dotnet restore

      - name: Build
        run: dotnet build --no-restore

convert-to-pdf:
  name: Build PDF
  runs-on: ubuntu-latest
  steps:
    - uses: actions/checkout@v4
    - uses: baileyjm02/markdown-to-pdf@v1
      with:
        input_dir: docs
        output_dir: pdfs
        # Default is true, can set to false to only get PDF files
        build_html: false
    - uses: actions/upload-artifact@v4
      with:
        name: docs
        path: pdfs
```

# Ejecución exitosa de un workflow que incluye acciones de GitHub y de terceros

The screenshot shows a successful GitHub workflow run for the repository `virtualitosorg/calculadora`. The workflow, named `Build and PDF #1`, was triggered manually 1 minute ago by `icebeam7` on branch `main`. It completed successfully in `1m 9s`, producing 1 artifact.

**Summary:** Manually triggered 1 minute ago by `icebeam7` on branch `main`. Status: Success. Total duration: 1m 9s. Artifacts: 1.

**build-and-pdf.yml:** on: workflow\_dispatch

- build-and-test:** 20s
- Build PDF:** 1m 5s

**Artifacts:** [Link]

**Actions:** Code, Issues, Pull requests, Actions (highlighted), Projects, Wiki, Security, Insights, Settings

**Links:** Go to dashboard, Talk to us, Buy Enterprise

# Creación de rol personalizado

- Accede a **tu organización**
- Da clic en la pestaña **Settings**
- Da clic en **Organization roles** y elige **Role management**
- En la sección **Custom roles**, da clic en **Create a role**
- Coloca un **nombre** y una descripción (opcional).
  - Por ejemplo, GitHub Actions Policies Manager
- En **Add permissions**, a nivel de organización, busca “**action policies**” y selecciona “**Manage organization action policies**”
- Da clic en el botón **Create role**

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Talk to us

## Activate paid Enterprise



[virtualitos.org](http://virtualitos.org)

Organization, part of Virtualitos ➔ Switch settings context ▾

[Go to your organization profile](#)

## General

## Policies

Trials

 Advanced Security

23 days left

## Access

## Billing and plans

## Organization roles

## Role management

## Role assignments

## Repository roles

## 83 Member privileges

## Role management

Organization roles are used to grant access to subsets of organization settings to teams and members. You can create up to 10 custom roles to fit your needs. [Learn more about custom organization roles.](#)

 All-repository read

Grants read access to all repositories in the organization.

## All-repository write

Grants write access to all repositories in the organization.

## All-repository triage

Grants triage access to all repositories in the organization.

## 🔧 All-repository maintenance

Grants maintenance access to all repositories in the organization.

## Custom roles

Create a role and add permissions to it.

[Create a role](#)

You do not have any custo

## Organization roles / Create a role

Organization roles are used to grant access to subsets of organization settings to teams and members. You can create up to 10 custom roles to fit your needs. [Learn more about custom organization roles.](#)

### Name

GitHub Actions Policies Manager

### Description

What is this role all about?

A short description who this role is for or what permissions it grants

### Add permissions

Organization roles can include repository permissions. Repository permissions are granted to all repositories in the organization.

Organization 1    Repository [Preview](#) 0

actions policies

Manage organization Actions policies

[Manage organization Actions policies](#)

CI/CD



El nuevo rol aparece en la sección **Custom roles** y está listo para ser asignado a un usuario o equipo.

## Custom roles

Create a role and add permissions to it.

 GitHub Actions Policies Manager

...

↔

# Asignación del rol a un usuario

- Accede a **tu organización**
- Da clic en la pestaña **Settings**
- Da clic en **Organization roles** y elige **Role assignments**
- Ahora da clic en **New role assignment**
- Busca y selecciona al usuario al que deseas asignar el rol.
- De la lista, selecciona el rol creado
  - Por ejemplo, GitHub Actions Policies Manager
- Da clic en **Add new role assignment**



virtualitosorg



Type / to search

[Overview](#)[Repositories](#)[Projects](#)[Packages](#)[Teams](#)[People](#)[Security](#)[Insights](#)[Settings](#)

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virtualitosorg

Organization, part of Virtualitos [Switch settings context ▾](#)[Go to your organization profile](#)[General](#)[Policies](#)[Trials](#)[Advanced Security](#)

23 days left

[Access](#)[Billing and plans](#)[Organization roles](#)[Role management](#)[Role assignments](#)[Repository roles](#)[Member privileges](#)

## Assign teams or people an organization role

 Search organization role assignments

Role: All ▾

[New role assignment](#)[Users 0](#)

0

[Teams 0](#)

0

**No results**

## Assign teams or users for an organization role in virtualitosorg

beltranprieto7



beltranprieto7 User

### All-repository read

Grants read access to all repositories in the organization.

### All-repository write

Grants write access to all repositories in the organization.

### All-repository triage

Grants triage access to all repositories in the organization.

### All-repository maintain

Grants maintenance access to all repositories in the organization.

### All-repository admin

Grants admin access to all repositories in the organization.

### Apps manager

Grants the ability to manage all GitHub Apps owned by an organization.

Add new assignment

## Assign teams or users for an organization role in virtualitosorg



beltranprieto7

X

### Choose a Role

[View role details](#)

#### All-repository read

Grants read access to all repositories in the organization.

#### All-repository write

Grants write access to all repositories in the organization.

#### All-repository triage

Grants triage access to all repositories in the organization.

#### All-repository maintain

Grants maintenance access to all repositories in the organization.

#### All-repository admin

Grants admin access to all repositories in the organization.

### Apps manager

Grants the ability to manage all GitHub Apps owned by an organization.

### CI/CD Admin

Grants admin access to manage Actions policies, runners, runner groups, network configurations, secrets, variables, and usage metrics for an organization.

### Security manager

Grants the ability to manage security policies, security alerts, and security configurations for an organization and all its repositories.

### GitHub Actions Policies Manager

Add new assignment

The screenshot shows the GitHub Organization settings for 'virtualitosorg'. The left sidebar has a green 'Add new assignment' button. The main area title is 'Assign teams or people an organization role'. It includes a search bar, a 'Role: All' dropdown, and a 'New role assignment' button. Below this, there's a list of users and teams. A user named 'beltranprieto7' is shown with '1 role'. The sidebar also lists 'General', 'Policies', 'Trials', 'Advanced Security', 'Access', 'Billing and plans', 'Organization roles' (which is expanded to show 'Role management', 'Role assignments', and 'Repository roles'), and 'Repository roles'.

virtualitosorg  
Organization, part of Virtualitos ➔ Switch settings context ➔ Go to your organization profile

Add new assignment

virtualitosorg Organization, part of Virtualitos ➔ Switch settings context ➔ Go to your organization profile

General

Policies

Trials

Advanced Security 23 days left

Access

Billing and plans

Organization roles

Role management

Role assignments

Repository roles

Assign teams or people an organization role

Search organization role assignments

Role: All New role assignment

Users 1 Teams 0

beltranprieto7 1 role

La nueva asignación de rol aparece en la sección **Role assignments** y el usuario podrá administrar las políticas de las acciones de esta organización.

# Administración de GitHub Actions en la organización

Comprueba que el usuario puede administrar las políticas de GitHub Actions de la organización

- Iniciando sesión como el usuario con el rol, accede a las Settings de tu organización.
- Observa que puedes gestionar las políticas de uso de GitHub Actions en esta organización.
  - Para este ejemplo, elige: **Allow enterprise, and select non-enterprise, actions and reusable workflows**, luego marca “**Allow actions created by GitHub**” y guarda los cambios

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[Talk to us](#) [Activate paid Enterprise](#)**virtualitosorg**Organization, part of [Virtualitos](#) [Go to your organization profile](#)[Actions](#)[General](#)

## General actions permissions

### Policies

Choose which repositories are permitted to use GitHub Actions.

[All repositories](#)

**Allow all actions and reusable workflows**

Any action or reusable workflow can be used, regardless of who authored it or where it is defined.

**Allow enterprise actions and reusable workflows**

Any action or reusable workflow defined in a repository within the enterprise can be used.

**Allow enterprise, and select non-enterprise, actions and reusable workflows**

Any action or reusable workflow that matches the specified criteria, plus those defined in a repository within the enterprise, can be used. [Learn more about allowing specific actions and reusable workflows to run.](#)

**Allow actions created by GitHub**

**Allow actions by Marketplace verified creators**

### Allow specified actions and reusable workflows

Enter a comma-separated list of actions and reusable workflows

Wildcards, tags, and SHAs are allowed.

Action examples: `octo-org/octo-repo@*`, `octo-org/octo-repo@v2`

Reusable workflow examples: `octo-org/octo-repo/.github/workflows/build.yml@main`

Entire organization or repository examples: `octo-org/*`, `octo-org/octo-repo/*`

# Ejecución fallida de un workflow que tiene actions de terceros

Screenshot of a GitHub repository page showing a failed workflow run.

Repository: virtualitosorg / calculadora

Navigation bar: Code, Issues, Pull requests, Actions (highlighted), Projects, Wiki, Security, Insights, Settings

Message: 22 days left to try out Enterprise, GitHub Advanced Security and Copilot features. [Go to dashboard](#)

Workflow run status: Workflow run was successfully requested. (X)

Actions sidebar: New workflow, All workflows, Build and PDF (selected), Management, Caches, Attestations, Runners, Usage metrics, Performance metrics.

Build and PDF workflow details:

- Workflow name: Build and PDF
- YML file: build-and-pdf.yml
- Workflow runs:
  - 1 workflow run
    - Event: now
    - Status: Startup failure
    - Actor: icebeam7
    - Trigger: workflow\_dispatch
    - Run ID: #2
    - Description: Manually run by icebeam7
    - Timestamp: now
    - Duration: 1m 9s
  - Run ID: #1
    - Event: now
    - Status: Success
    - Actor: icebeam7
    - Trigger: workflow\_dispatch
    - Run ID: #1
    - Description: Manually run by icebeam7
    - Timestamp: 6 minutes ago
    - Duration: 1m 9s

Filter workflow runs:  (X) ...

# Motivo del fallo: acciones de terceros no están permitidas en repositorios de la organización

← Build and PDF

## Build and PDF #2

...

**Summary**

Manually triggered 2 minutes ago

Status: **Startup failure**

Total duration: -

Artifacts: -

icebeam7 · c60dfd3 · main

Jobs

Run details

Usage

Workflow file

This workflow graph cannot be shown

A graph will be generated the next time this workflow is run.

Annotations

1 error

Error

baileyjm02/markdown-to-pdf@v1 is not allowed to be used in virtualitosorg/calculadora. Actions in this workflow must be: within a repository that belongs to your Enterprise account or created by GitHub.

Show less

Al finalizar la prueba, edita los permisos para permitir todas las acciones y workflows reusables de nuevo.

# Control de acceso y uso

# Control de acceso a las Actions de la empresa

El control de acceso en GitHub Actions determina:

- Quién puede ejecutar workflows que usan acciones.
- Qué acciones se pueden usar dentro de una organización.
- Cómo los self-hosted runners ejecutan workflows de forma segura.
- Quién puede modificar y actualizar acciones compartidas de GitHub.

# Directivas de toda la organización para controlar acciones

GitHub Enterprise permite a los administradores establecer directivas de toda la organización que controlan cómo se usan las acciones en todos los repositorios de una organización.

Estas directivas ayudan a las organizaciones a restringir el uso de acciones de terceros, aplicar medidas de seguridad y estandarizar flujos de trabajo de automatización.

# Permisos de nivel de repositorio para acciones

Aunque la configuración de toda la organización se aplica globalmente, los **permisos de nivel de repositorio** proporcionan un **control específico** sobre **quién puede ejecutar** workflows y modificar acciones.

# Administración de permisos de flujo de trabajo de nivel de repositorio

- Read: Vea los flujos de trabajo, pero no puede desencadenarlos ni editarlos.
- Write: Edite flujos de trabajo, pero no puede crear otros nuevos.
- Manage: Crear, editar y administrar permisos de flujo de trabajo.

# Restricción del acceso a acciones externas

- GitHub Actions permite el uso de acciones de terceros, pero las acciones externas pueden suponer riesgos de seguridad si no se examinan correctamente.
- Las organizaciones deben controlar qué acciones externas se pueden usar.
- Riesgos:
  - Ejecución de código malintencionado.
  - Manipulación de dependencias
  - Exposición de secretos

# Configuración de permisos de flujo de trabajo y directivas de seguridad

## Workflow permissions

Choose the default permissions granted to the GITHUB\_TOKEN when running workflows in this enterprise. You can specify more granular permissions in the workflow using YAML. [Learn more about managing permissions](#).

Organization and repository administrators will only be able to change the default permissions to a more restrictive setting.

**Read and write permissions**

Workflows have read and write permissions in the repository for all scopes.

**Read repository contents and packages permissions**

Workflows have read permissions in the repository for the contents and packages scopes only.

Choose whether GitHub Actions can create pull requests or submit approving pull request reviews.

**Allow GitHub Actions to create and approve pull requests**

**Save**

# Exigir aprobación de los workflows

## Approval for running fork pull request workflows from contributors

Choose which subset of users will require approval before running workflows on their pull requests. Both the pull request author and the actor of the pull request event triggering the workflow will be checked to determine if approval is required. If approval is required, a user with write access to the repository must [approve the pull request workflow to be run](#).

**Require approval for first-time contributors who are new to GitHub**

Only users who are both new on GitHub and who have never had a commit or pull request merged into this repository will require approval to run workflows.

**Require approval for first-time contributors**

Only users who have never had a commit or pull request merged into this repository will require approval to run workflows.

**Require approval for all external contributors**

All users that are not a member or owner of the repository and not a member of the organization will require approval to run workflows.

**Save**

# Habilitar workflows para PR de repositorios privados

## Fork pull request workflows in private repositories

These settings apply to private repositories. Organization and repository administrators will only be able to change the settings that are enabled here.

### Run workflows from fork pull requests

This tells Actions to run workflows from pull requests originating from repository forks. Note that doing so will give maintainers of those forks the ability to use tokens with read permissions on the source repository.

### Send write tokens to workflows from fork pull requests.

This tells Actions to send tokens with **write** permissions to workflows from pull requests originating from repository forks. Note that doing so will give maintainers of those forks **write** permissions against the source repository.

### Send secrets and variables to workflows from fork pull requests.

This tells Actions to send repository secrets and variables to workflows from pull requests originating from repository forks.

### Require approval for fork pull request workflows.

Fork pull requests from users without write access will require approval to run workflows.

Save

# Componentes reusables de GitHub Actions

# Workflow Templates

# Componentes reutilizables, Workflow Templates

- GitHub Actions permite la **automatización del flujo de trabajo** y una parte clave de la administración de flujos de trabajo de forma eficaz es usar **plantillas reutilizables**.
- Las plantillas reutilizables ayudan a estandarizar y optimizar el desarrollo en varios repositorios, lo que reduce la redundancia y mejora el mantenimiento.
- Las plantillas reutilizables de GitHub Actions hacen referencia a **acciones y workflows predefinidos** a los que se puede hacer referencia y usar en varios proyectos.
- Garantizan la coherencia y el cumplimiento de los estándares de toda la empresa.

# Workflow templates

```
name: My Workflow Template

on: [push, pull_request]

jobs:
  build:
    runs-on: ubuntu-latest
    steps:
      - name: Checkout code
        uses: actions/checkout@v2
      - name: Install dependencies
        run: npm install
      - name: Build app
        run: npm run build
```

## Deployment

### Deploy .NET Core app to Azure Functions App

By Microsoft Azure

Build a .NET Core project and deploy it to an Azure Functions App on Windows or Linux.

[Configure](#)[Deployment](#)

### Deploy a .NET Core app to an Azure Web App

By Microsoft Azure

Build a .NET Core project and deploy it to an Azure Web App.

[Configure](#)[Deployment](#)

### Terraform

By HashiCorp

Set up Terraform CLI in your GitHub Actions workflow.

[Configure](#)[Deployment](#)

### Deploy to Alibaba Cloud ACK

By Alibaba Cloud

Deploy a container to Alibaba Cloud Container Service for Kubernetes (ACK).

[Configure](#)[Deployment](#)

# Categorías de workflow templates disponibles en GitHub

- Implementación (CD)
- Seguridad
- Integración Continua (CI)
- Automatización
- Páginas

## Security

### CodeQL Analysis

By GitHub



Security analysis from GitHub for C, C++, C#, Go, Java, JavaScript, TypeScript, Python, Ruby, Kotlin and Swift developers.

### APIsec Scan

By APIsec



APIsec provides the industry's only automated and continuous API testing platform that uncovers security vulnerabilities and logic flaws in APIs.

## Continuous integration

### .NET

By GitHub Actions



Build and test a .NET or ASP.NET Core project.

Configure

C# ●

### Webpack

By GitHub Actions



Build a NodeJS project with npm and webpack.

Configure

JavaScript ●

## Automation

### Greetings

By GitHub Actions



Greets users who are first time contributors to the repo

Configure

Automation ●

### Stale

By GitHub Actions



Checks for stale issues and pull requests

Configure

Automation ●

## Pages

### Jekyll

By GitHub Actions



Package a Jekyll site.

Configure

### Static HTML

By GitHub Actions



Deploy static files in a repository without a build.

Configure

HTML ●

# Creando y consumiendo workflow templates

Demo

# Creando una workflow template para tu organización

- Si no existe, crea el repositorio **.github** público en tu organización
- En el directorio **workflow-templates**:
  - Crea la plantilla del workflow con extensión **.yml**
  - Crea un archivo de metadatos que describe cómo se presentará el workflow a los usuarios. Debe tener la extensión **.properties.json**
  - **Importante:** El archivo de metadatos tiene el mismo nombre que el workflow, solo cambia la extensión.

El archivo de metadatos debe contener los siguientes campos de forma obligatoria:

- **name**
- **description**

Los siguientes son camposopcionales:

- **iconName:**
  - un SVG almacenado en el directorio workflow-templates (se hace referencia sin su extensión)
  - Un **octicon**: <https://primer.style/octicons/>
- **categories**
  - Un elemento de **starter-categories** (<https://github.com/actions/starter-workflows/blob/main/README.md#categories>)
  - Un elemento de **lenguajes** (<https://github.com/github-linguist/linguist/blob/main/lib/linguist/languages.yml>)
  - Un elemento de **tech stacks** ([https://github.com/github-starter-workflows/repo-analysis-partner/blob/main/tech\\_stacks.yml](https://github.com/github-starter-workflows/repo-analysis-partner/blob/main/tech_stacks.yml))
- **filePatterns**

← ⌘ https://github.com/organizations/virtualitosorg/repositories/new

virtualitosorg

Overview Repositories 2 Projects Packages Teams People 2 Security Insights ...

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### Create a new repository [Preview](#)

Repositories contain a project's files and version history. Have a project elsewhere? [Import a repository](#).  
Required fields are marked with an asterisk (\*).

**1 General**

**Owner \*** **Repository name \***

virtualitosorg .github

.github is available.

Great repository names are short and memorable. How about [symmetrical-doodle](#)?

**Description**

Welcome to Virtualitos' org repo!

33 / 350 characters

**2 Configuration**

**Choose visibility \*** Public

Choose who can see and commit to this repository

**Start with a template** No template

Templates pre-configure your repository with files.

# Creación del repositorio .github en la organización

EXPLORER

...

.GITHUB

workflow-templates

{ } net-ci-cd-codeql.properties.json

! net-ci-cd-codeql.yml

...

! net-ci-cd-codeql.yml X

workflow-templates > ! net-ci-cd-codeql.yml > {} on > {} pull\_request

```
1   name: .NET CI/CD Pipeline with CodeQL
2
3   on:
4     push:
5       branches: [ $default-branch ]
6     pull_request:
7       branches: [ $default-branch ]
8
9   jobs:
10    build-test-analyze:
11      name: Build, Test and Analyze
12      runs-on: ubuntu-latest
13      permissions:
14        actions: read
15        contents: read
16        security-events: write
17
18    steps:
19      - name: Checkout code
20        uses: actions/checkout@v4
21
22      - name: Setup .NET
23        uses: actions/setup-dotnet@v4
24        with:
25          dotnet-version: '9.0.x'
26
27      - name: Restore dependencies
28        run: dotnet restore
29
30      - name: Build
31        run: dotnet build --no-restore --configuration Release
32
33      - name: Test
34        run: dotnet test --no-build --configuration Release --logger trx
```

# Archivo de metadatos

The screenshot shows the VS Code interface with the Explorer and Editor panes open.

**EXPLORER** pane:

- Shows a folder structure under ".GITHUB":
  - workflow-templates
    - { } net-ci-ci-codeql.properties.json (selected)
    - ! net-ci-ci-codeql.yml

**Editor** pane:

```
{ } net-ci-ci-codeql.properties.json U X

workflow-templates > { } net-ci-ci-codeql.properties.json > [ ] filePatterns

1  {
2    "name": ".NET CI/CD Pipeline with CodeQL",
3    "description": "Compila, prueba, analiza con CodeQL y publica artefactos y releases para proyecto",
4    "iconName": "octicon zap",
5    "categories": ["ci", "code-scanning", "deployment", "C#"],
6    "filePatterns": [
7      ".*\\\\.cs$",
8      ".*\\\\.csproj$"
9    ]
10 }
11
```

# Workflow Template publicado en GitHub

The screenshot shows a GitHub repository page for the user 'virtualitosorg' at the path '.github/main/workflow-templates'. The repository name is 'virtualitosorg / .github'. The page features a dark theme with a navigation bar at the top. Below the navigation, there's a message about a 22-day trial for GitHub Enterprise. The main content area displays two files: 'net-ci-cd-codeql.properties.json' and 'net-ci-cd-codeql.yml'. Both files have a 'Last commit message' of 'Add .NET CI/CD Pipeline with CodeQL Workflow Template'.

← ⏪ 🔒 https://github.com/virtualitosorg/.github/tree/main/workflow-templates

virtualitosorg / .github Type / to search

**Code** Issues Pull requests Actions Projects Wiki Security Insights Settings

⌚ 22 days left to try out Enterprise, GitHub Advanced Security and Copilot features. [Go to dashboard](#)

main .github / workflow-templates /

icebeam7 Add .NET CI/CD Pipeline with CodeQL Workflow Template

Name	Last commit message
..	
net-ci-cd-codeql.properties.json	Add .NET CI/CD Pipeline with CodeQL Workflow Template
net-ci-cd-codeql.yml	Add .NET CI/CD Pipeline with CodeQL Workflow Template

# Consumiendo un workflow template disponible en tu organización

- En cualquier otro repositorio de la organización, desde GitHub, agrega un nuevo workflow.
- La plantilla debe aparecer en la sección “**Suggested for this repository**” (parte superior) o en “**Browse all categories**” (parte inferior).
- Da clic en **Configure** para usarlo; revisa que aparece todo el contenido del workflow, listo para ser editado.
- Si el template no aparece, revisa las restricciones impuestas por el valor filePatterns en el template.

← ⌂ https://github.com/virtualitosorg/calculadora/actions/new

virtualitosorg / calculadora

Type  to search

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

22 days left to try out Enterprise, GitHub Advanced Security and Copilot features. [Go to dashboard](#)

## Choose a workflow

Build, test, and deploy your code. Make code reviews, branch management, and issue triaging work the way you want. Select a workflow.

Skip this and [set up a workflow yourself](#) →

Search workflows

### Suggested for this repository

**.NET CI/CD Pipeline with CodeQL** By virtualitosorg 

Compila, prueba, analiza con CodeQL y publica artefactos y releases para proyectos en C# (.NET).

[Configure](#) C# ●

**.NET Desktop** By GitHub Actions 

Build, test, sign and publish a desktop application built on .NET.

[Configure](#) C# ●

## Browse all categories

By virtualitosorg

Deployment

Security

Continuous integration

Automation

Pages

## Choose a workflow

Build, test, and deploy your code. Make code reviews, branch management, and issue triaging work the way you want. Select a workflow to get started.

Skip this and [set up a workflow yourself →](#)

### Categories

By virtualitosorg



Deployment

Security

Continuous integration

Automation

Pages

Search workflows

Found 1 workflow

.NET CI/CD Pipeline  
with CodeQL



By virtualitosorg

Compila, prueba, analiza con  
CodeQL y publica artefactos y  
releases para proyectos en C#  
(.NET).

Configure

C#



calculadora / .github / workflows /

net-ci-cd-codeql.yml

in main

Edit Preview

Spaces

2

No wrap



```
1 name: .NET CI/CD Pipeline with CodeQL
2
3 on:
4   push:
5     branches: [ "main" ]
6   pull_request:
7     branches: [ "main" ]
8
9 jobs:
10   build-test-analyze:
11     name: Build, Test and Analyze
12     runs-on: ubuntu-latest
13     permissions:
14       actions: read
15       contents: read
16       security-events: write
17
18     steps:
19       - name: Checkout code
20         uses: actions/checkout@v4
21
22       - name: Setup .NET
```

# Workflows Reusables

- Un **workflow reutilizable** es un workflow definido en un repositorio independiente al que se puede hacer referencia en varios proyectos.
- Esto permite a las organizaciones **centralizar** su lógica de CI/CD.
- Estructura:
  - Un workflow reutilizable se almacena en `.github/workflows/` y usa el evento desencadenador **workflow\_call** .

# Recomendación

- Un repositorio bien estructurado para flujos de trabajo y acciones reutilizables garantiza un fácil acceso y estandarización.
- Considera la posibilidad de crear un repositorio con una convención de nomenclatura para tu organización, por ejemplo, **org-reusable-workflows** para tu repositorio de workflows reusables.

# Creando un workflow reusable

Demo

- En tu organización, crea un repositorio llamado **org-reusable-workflows** con visibilidad **Pública**.
- En la ruta `.github/workflows/` crea el workflow `net-ci.yml`



main ▾

-org-reusable-workflows / .github / workflows / net-ci.yml



icebeam7 Update net-ci.yml

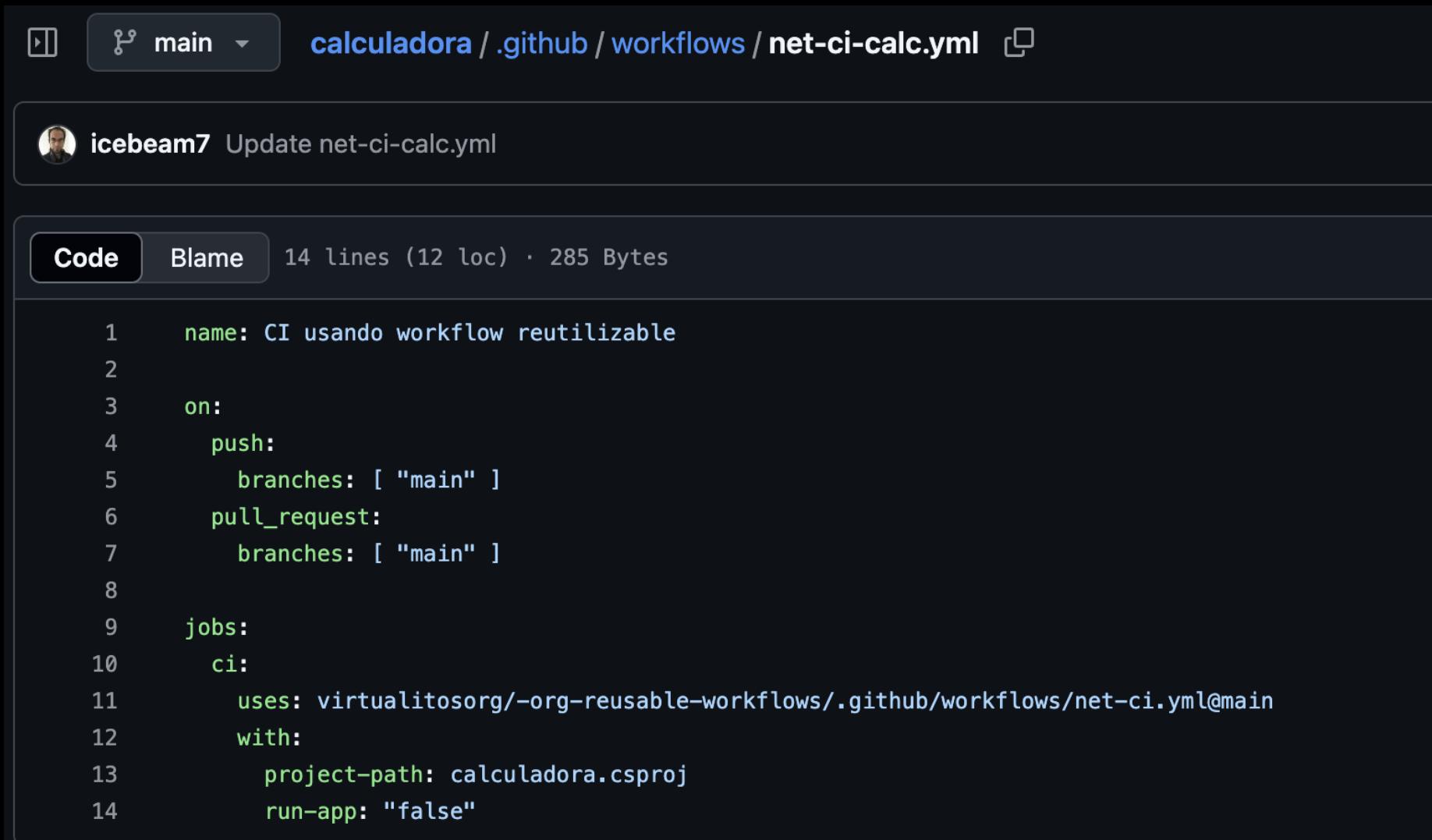
[Code](#)[Blame](#)

48 lines (39 loc) · 1.25 KB

```
1   name: .NET Restore, Build, Run and Test
2
3   on:
4     workflow_call:
5       inputs:
6         project-path:
7           description: Ruta del proyecto .csproj (opcional)
8           required: false
9           default: ""
10          type: string
11        run-app:
12          description: Si se debe ejecutar `dotnet run` (true/false)
13          required: false
14          default: "false"
15          type: string
16
17      jobs:
18        build:
19          runs-on: ubuntu-latest
20
21        steps:
22          - name: Checkout code
23            uses: actions/checkout@v4
24
25          - name: Setup .NET
26            uses: actions/setup-dotnet@v4
27            with:
28              dotnet-version: '9.0.x'
29
30          - name: Restore dependencies
```

Reusar workflows entre repositorios de la misma cuenta empresarial

- Para consumir el workflow anterior, crea uno nuevo en un repositorio existente donde llames al workflow creado.



The screenshot shows a GitHub repository interface with a dark theme. At the top, there's a navigation bar with a play button icon, a dropdown menu showing "main", and the repository path "calculadora / .github / workflows / net-ci-calc.yml". Below the path is a small profile picture of a person and the text "icebeam7 Update net-ci-calc.yml". The main area contains a code editor with tabs for "Code" (which is selected) and "Blame". It displays 14 lines of YAML code:

```
1 name: CI usando workflow reutilizable
2
3 on:
4   push:
5     branches: [ "main" ]
6   pull_request:
7     branches: [ "main" ]
8
9 jobs:
10   ci:
11     uses: virtualitosorg/-org-reusable-workflows/.github/workflows/net-ci.yml@main
12     with:
13       project-path: calculadora.csproj
14       run-app: "false"
```

The following table shows the accessibility of reusable workflows to a caller workflow, depending on the visibility of the host repository.

Caller repository	Accessible workflows repositories
private	private, internal, and public
internal	internal, and public
public	public