

# Managing larger runners

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You can configure larger runners for your organization or enterprise.

### Who can use this feature

Larger runners are only available for organizations and enterprises using the GitHub Team or GitHub Enterprise Cloud plans.



**Note:** The information and instructions in this article only apply to larger runners with Linux and Windows operating systems.

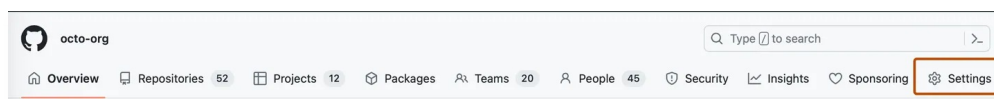
## Adding a larger runner to an organization



You can add a larger runner to an organization, where organization owners can control which repositories can use it. When you create a new runner for an organization, by default, all repositories in the organization have access to the runner. To limit which repositories can use the runner, assign it to a runner group with access to specific repositories. For more information, see "[Allowing repositories to access a runner group](#)."

You can choose an operating system and a hardware configuration from the list of available options. When new instances of this runner are deployed through autoscaling, they'll use the same operating system and hardware configuration you've defined here.

New runners are automatically assigned to the default group, or you can choose which group the runners must join during the runner creation process. In addition, you can modify the runner's group membership after you've registered the runner. For more information, see "[Controlling access to larger runners](#)."

- 1 On GitHub.com, navigate to the main page of the organization.
- 2 Under your organization name, click  **Settings**. If you cannot see the "Settings" tab, select the  dropdown menu, then click **Settings**.



- 3 In the left sidebar, click  **Actions**, then click **Runners**.
- 4 Click **New runner**, then click  **New GitHub-hosted runner**.

- 5 Complete the required details to configure your new runner:
  - **Name:** Enter a name for your new runner. For easier identification, this should indicate its hardware and operating configuration, such as `ubuntu-20.04-16core`.
  - **Runner image:** Choose an operating system from the available options. Once you've selected an operating system, you will be able to choose a specific version.
  - **Runner size:** Choose a hardware configuration from the drop-down list of available options.
  - **Auto-scaling:** Choose the maximum number of jobs that can be active at any time.
  - **Runner group:** Choose the group that your runner will be a member of. This group will host multiple instances of your runner, as they scale up and down to suit demand.

- 6 Click **Create runner**.




- 7 To allow repositories to access your larger runners, add them to the list of repositories that can use it. For more information, see "[Allowing repositories to access larger runners](#)."

## Allowing repositories to access larger runners

Repositories are granted access to larger runners through runner groups. Enterprise administrators can choose which organizations are granted access to enterprise-level runner groups, and organization owners control repository-level access to all larger runners. Organization owners can use and configure enterprise-level runner groups for the repositories in their organization, or they can create organization-level runner groups to control access.

- **For enterprise-level runner groups:** By default, repositories in an organization do not have access to enterprise-level runner groups. To give repositories access to enterprise runner groups, organization owners must configure each enterprise runner group and choose which repositories have access.
- **For organization-level runner groups:** By default, all repositories in an organization are granted access to organization-level runner groups. To restrict which repositories have access, organization owners must configure organization runner groups and choose which repositories have access.

Once a repository has access to larger runners, the larger runners can be added to workflow files. For more information, see "[Running jobs on larger runners](#)."

- 1 Navigate to the main page of the organization where your runner groups are located.
- 2 Click  **Settings**.
- 3 In the left sidebar, click  **Actions**, then click **Runner groups**.
- 4 Select a runner group from either list on the page. Organization-level runner groups are listed at the top of the page, and enterprise-level runner groups are listed under "Shared by the Enterprise."
- 5 On the runner group page, under "Repository access," select **All repositories** or **Selected repositories**. If you choose to grant access to specific repositories, click , then select the repositories you would like to grant access to from the list.

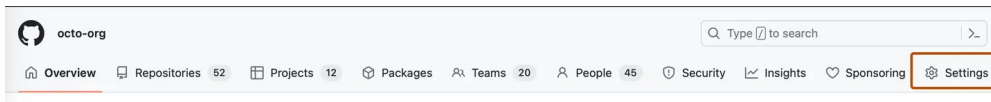
### Warning:

If you are using a Fixed IP range, we recommend that you only use larger runners with private repositories. Forks of your repository can potentially run dangerous code on your larger runner by creating a pull request that executes the code in a workflow.

For more information, see "[Controlling access to larger runners](#)."

## Changing the name of a larger runner [↗](#)

- 1 On GitHub.com, navigate to the main page of the organization.
- 2 Under your organization name, click ⚙️ **Settings**. If you cannot see the "Settings" tab, select the ⋮ dropdown menu, then click **Settings**.

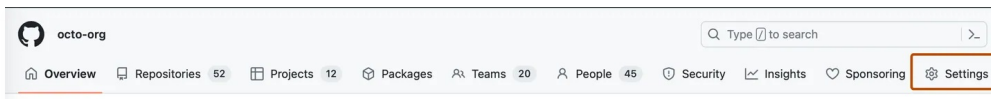


- 3 In the left sidebar, click ▶️ **Actions**, then click **Runners**.
- 4 In the list of runners, select the runner you would like to edit.
- 5 Enter a new name for the runner in the text field under "Name."
- 6 Click **Save**.

## Configuring autoscaling for larger runners [↗](#)

You can control the maximum number of jobs allowed to run concurrently for specific runner sets. Setting this field to a higher value can help prevent workflows being blocked due to parallelism.

- 1 On GitHub.com, navigate to the main page of the organization.
- 2 Under your organization name, click ⚙️ **Settings**. If you cannot see the "Settings" tab, select the ⋮ dropdown menu, then click **Settings**.



- 3 In the left sidebar, click ▶️ **Actions**, then click **Runners**.
- 4 In the list of runners, select the runner you would like to edit.
- 5 In the "Auto-scaling" section, under "Maximum Job Concurrency," enter the maximum number of jobs you would like to allow to run at the same time.
- 6 Click **Save**.

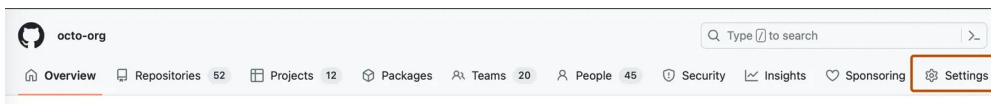
## Creating static IP addresses for larger runners [↗](#)

**Note:** To use static IP addresses, your organization must use GitHub Enterprise Cloud. For more information about how you can try GitHub Enterprise Cloud for free, see "[Setting up a trial of GitHub Enterprise Cloud](#)."

You can enable static IP addresses for larger runners. When you do this, the larger runners are assigned static IP address ranges. By default, you can configure up to 10 different larger runners with IP ranges for your account. If you would like to use more than 10 larger runners with static IP address ranges, please contact us through the [GitHub Support portal](#).

The number of available IP addresses in the assigned ranges does not restrict number of concurrent jobs specified for autoscaling. Within a runner pool, there is a load balancer which allows for high reuse of the IP addresses in the assigned ranges. This ensures your workflows can run concurrently at scale while each machine is assigned a static IP address.

- 1 On GitHub.com, navigate to the main page of the organization.
- 2 Under your organization name, click ⚙️ **Settings**. If you cannot see the "Settings" tab, select the ⋮ dropdown menu, then click **Settings**.



- 3 In the left sidebar, click ▶ **Actions**, then click **Runners**.
- 4 In the list of runners, select the runner you would like to edit.
- 5 To assign static IP addresses to the runner, under "Networking," check **Assign unique & static public IP address ranges for this runner**.
- 6 Click **Save**.

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