

# Exporting migration data from GitHub Enterprise Server

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To change platforms or move from a trial instance to a production instance, you can export migration data from a GitHub Enterprise Server instance by preparing the instance, locking the repositories, and generating a migration archive.

## Preparing the GitHub Enterprise Server source instance [↗](#)

- 1 Verify that you are a site administrator on the GitHub Enterprise Server source. The best way to do this is to verify that you can [SSH into the instance](#).
- 2 [Generate an access token](#) with the `repo` and `admin:org` scopes on the GitHub Enterprise Server source instance.
- 3 To minimize downtime, make a list of repositories you want to export from the source instance. You can add multiple repositories to an export at once using a text file that lists the URL of each repository on a separate line.

## Exporting the GitHub Enterprise Server source repositories [↗](#)

**Note:** Locking a repository prevents all write access to the repository. You cannot associate new teams or collaborators with a locked repository.

If you're performing a trial run, you do not need to lock the repository. When you migrate data from a repository that's in use, GitHub strongly recommends locking the repository. For more information, see "[About ghe-migrator](#)."

- 1 SSH into your GitHub Enterprise Server instance. If your instance comprises multiple nodes, for example if high availability or geo-replication are configured, SSH into the primary node. If you use a cluster, you can SSH into any node. For more information about SSH access, see "[Accessing the administrative shell \(SSH\)](#)."

```
ssh -p 122 admin@HOSTNAME
```

- 2 To prepare a repository for export, use the `ghe-migrator add` command with the repository's URL:

- If you're locking the repository, append the command with `--lock`. If you're performing a trial run, `--lock` is not needed.

```
ghe-migrator add https://HOSTNAME/USERNAME/REPO-NAME --lock
```

- You can exclude file attachments by appending `--exclude_attachments` to the command. File attachments can be large and may needlessly bloat your final migration archive.
- To prepare multiple repositories at once for export, create a text file listing each repository URL on a separate line, and run the `ghe-migrator add` command with the `-i` flag and the path to your text file.

```
ghe-migrator add -i PATH/TO/YOUR/REPOSITORY_URL.txt
```

3 When prompted, enter your GitHub Enterprise Server username:

```
Enter username authorized for migration: admin
```

4 When prompted for a personal access token, enter the access token you created in "[Preparing the GitHub Enterprise Server source instance](#)":

```
Enter personal access token: *****
```

5 When `ghe-migrator add` has finished it will print the unique "Migration GUID" that it generated to identify this export as well as a list of the resources that were added to the export. You will use the Migration GUID that it generated in subsequent `ghe-migrator add` and `ghe-migrator export` steps to tell `ghe-migrator` to continue operating on the same export.

```
> 101 models added to export
> Migration GUID: EXAMPLE-MIGRATION-GUID
> Number of records in this migration:
> users | 5
> organizations | 1
> repositories | 1
> teams | 3
> protected_branches | 1
> pull_request_reviews | 1
> milestones | 1
> issues | 3
> pull_requests | 5
> pull_request_review_comments | 4
> commit_comments | 2
> issue_comments | 10
> issue_events | 63
> releases | 3
> attachments | 4
> projects | 2
```

Each time you add a new repository with an existing Migration GUID it will update the existing export. If you run `ghe-migrator add` again without a Migration GUID it will start a new export and generate a new Migration GUID. **Do not re-use the Migration GUID generated during an export when you start preparing your migration for import.**

6 To add more repositories to the same export, use the `ghe-migrator add` command with the `-g` flag. You'll pass in the new repository URL and the Migration GUID from Step 5:

```
ghe-migrator add https://HOSTNAME/USERNAME/OTHER-REPO-NAME -g MIGRATION-GUID
--lock
```

- 7 When you've finished adding repositories, generate the migration archive using the `ghe-migrator export` command with the `-g` flag and the Migration GUID from Step 5:

```
$ ghe-migrator export -g MIGRATION-GUID
> Archive saved to: /data/github/current/tmp/MIGRATION-GUID.tar.gz
```

- To specify where migration files should be staged append the command with `--staging-path=/full/staging/path`. Defaults to `/data/user/tmp`.

- 8 Close the connection to your GitHub Enterprise Server instance:

```
$ exit
> logout
> Connection to HOSTNAME closed.
```

- 9 Copy the migration archive to your computer using the `scp` command. The archive file will be named with the Migration GUID:

```
scp -P 122 admin@HOSTNAME:/data/github/current/tmp/MIGRATION-GUID.tar.gz
~/Desktop
```

- 10 To prepare the archived migration data for import into a GitHub Enterprise Server instance, see "[Preparing to migrate data to GitHub Enterprise Server](#)".

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