

# GATE on GitHub

## Install Git

<http://git-scm.com/book/en/Getting-Started-Installing-Git>(<http://git-scm.com/book/en/Getting-Started-Installing-Git>)

## Create a GitHub account

<https://github.com/join>(<https://github.com/join>)

## Clone GATE source code repository

GATE project on GitHub(<https://github.com/OpenGATE/Gate>) is the public repository of the GATE software.

If you want to get a copy of the GATE source code repository, the command you need is git clone.

If you're familiar with other VCS systems such as Subversion, you'll notice that the command is clone and not checkout. This is an important distinction — Git receives a copy of nearly all data that the server has. Every version of every file for the history of the project is pulled down when you run git clone. In fact, if your server disk gets corrupted, you can use any of the clones on any client to set the server back to the state it was in when it was cloned.

```
$ git clone https://github.com/OpenGATE/Gate.git
```

This command creates a directory named *Gate*, initializes a `.git` directory inside it, pulls down all the data for that repository, and checks out a working copy of the latest version. If you go into the new *Gate* directory, you'll see the project files in there, ready to be worked on or used. If you want to clone the repository into a directory named something other than `git`, you can specify that as the next command-line option:

```
$ git clone https://github.com/OpenGATE/Gate.git myrepository
```

That command does the same thing as the previous one, but the target directory is called *myrepository*.

Note that the stable version of the GATE source code is branch 'master' (or tag 8.0) and the current development version is branch 'develop' (default branch).

## Fork GATE repository

A fork is a **copy** of a repository

- It lets any GitHub user make changes to a project **without affecting** the original repository
- It can be used to **fetch updates** from or **propose changes** to the original repository

Rather than [logging an issue](https://github.com/OpenGATE/Gate/issues/new)(https://github.com/OpenGATE/Gate/issues/new) for a bug you can:

- **Fork** Gate repository
- Make the **fix**
- Submit a **pull request** to the OpenGATE collaborators so that they pull your work into the original Gate repository

Forking Gate repository is a two-step process:

1. On GitHub, navigate to the [OpenGATE/Gate](https://github.com/OpenGATE/Gate)(https://github.com/OpenGATE/Gate) repository
2. In the top-right corner of the page, click **Fork**

Now you have a fork of the original OpenGATE/Gate repository

## Keep your fork synced

### STEP 1: SET UP GIT

1. Open Terminal
2. Tell Git **your name** so your commits will be properly labeled
3. Tell Git the **email address** that will be associated with your Git commits.

The email you specify should be the same one found in your email settings.

```
$ git config --global user.name "YOUR NAME"
```

### STEP 2: CREATE A LOCAL CLONE OF YOUR FORK

1. On GitHub, navigate to **your fork** of the OpenGATE/Gate repository
2. Under your repository name, click **Clone or download**
3. In the **Clone with HTTPS** section, click to copy the clone URL for the repository
4. Open Terminal, type `$ git clone`, and then paste the URL you copied in 3

```
$ git clone https://github.com/YOUR-USERNAME/Gate.git
```

```
Cloning into 'Gate'...
```

```
remote: Counting objects: 20182, done.
```

```
remote: Total 20182 (delta 0), reused 0 (delta 0), pack-reused 20182
```

```
Receiving objects: 100% (20182/20182), 13.83 MiB | 3.24 MiB/s, done.
```

```
Resolving deltas: 100% (13674/13674), done.
```

Now you have a local copy of your fork of the Gate repository

### STEP 3: CONFIGURE GIT TO **SYNC** YOUR FORK WITH THE ORIGINAL GATE REPOSITORY

1. Change directories to the location of the fork you cloned in Step 2 and type `git remote -v`

```
$ git remote -v
origin https://github.com/YOUR_USERNAME/Gate.git (fetch)
origin https://github.com/YOUR_USERNAME/Gate.git (push)
```

2. Type `git remote add upstream`, and then paste the URL of the OpenGATE/Gate repository

```
$ git remote add upstream https://github.com/OpenGATE/Gate.git
```

3. To verify the new upstream repository you've specified for your fork, type `git remote -v` again

```
$ git remote -v
origin https://github.com/YOUR_USERNAME/Gate.git (fetch)
origin https://github.com/YOUR_USERNAME/Gate.git (push)
upstream https://github.com/OpenGATE/Gate.git (fetch)
upstream https://github.com/OpenGATE/Gate.git (push)
```

Now, you can sync your fork with the upstream repository

1. Fetch the branches and their respective commits from the upstream repository

```
$ git fetch upstream
remote: Counting objects : 75, done.
remote: Compressing objects: 100% (53/53), done.
remote: Total 62 (delta 27), reused 44 (delta 9)
Unpacking objects: 100% (62/62), done.
From https://github.com/OpenGATE/Gate.git
* [new branch] develop -> upstream/develop
```

2. Check out **your fork's local** develop branch

```
$ git checkout develop
Switched to branch 'develop'
```

3. Merge the changes from **upstream/develop** into your **local develop** branch

```
$ git merge upstream/develop
Updating a422352..5fdff0f
Fast-forward
 README | 9 -----
 README.md | 7 ++++++
```

```
2 files changed, 7 insertions(+), 9 deletions (-)
```

```
delete mode 100644 README
```

```
create mode 100644 README.md
```

## Submit changes with pull requests

TO CONTRIBUTE BACK TO THE ORIGINAL GATE REPOSITORY, WE RECOMMEND CREATING BRANCHES LOCALLY, ON YOUR COMPUTER

1. Create a **new branch** within your repository

```
$ git checkout -b branch mynewbranch  
Switched to a new branch "mynewbranch"
```

2. Create or edit a file in your repository

3. **Push** your changes on GitHub

```
$ git push origin mynewbranch  
Username for 'https://github.com': yourusername  
Password for 'https://yourusername@github.com':  
Counting objects: 3, done.  
Writing objects: 100% (3/3), 216 bytes | 0 bytes/s, done.  
Total 3 (delta 0), reused 0 (delta 0)  
To https://github.com/albertine/Gate.git  
* [new branch] mynewbranch -> mynewbranch  
Branch mynewbranch set up to track remote branch mynewbranch from origin.
```

CREATE A PULL REQUEST SO THAT OPENGATE COLLABORATORS CAN REVIEW THE CHANGES IN YOUR BRANCH

1. Navigate to the [OpenGATE/Gate\(https://github.com/OpenGATE/Gate\)](https://github.com/OpenGATE/Gate) repository
2. To the right of the branch picker, click **New pull request**
3. On the Compare changes page, click **compare across forks**
4. Select OpenGATE/Gate as the *base fork*. Use the base branch drop-down menu to select the branch you'd like to merge changes into
5. Use the *head fork* drop-down menu to select your fork, then use the compare branch drop-down menu to select the branch you made your changes in.
6. Type a title and description for your pull request
7. Click **Create pull request**

After your pull request has been reviewed, your proposed changes can be merged into the OpenGATE /Gate repository.

## Twitter Thread

[Tweets by Gate](https://twitter.com/OpenGATE_MC?ref_src=twsrc%5Etfw)([https://twitter.com/OpenGATE\\_MC?ref\\_src=twsrc%5Etfw](https://twitter.com/OpenGATE_MC?ref_src=twsrc%5Etfw))

<https://gate.uca.fr/download/gate-on-github>(<https://gate.uca.fr/download/gate-on-github>)