

Getting Started with GitLab

Before you can start developing on CiCS Linux you need to configure your access to GitLab (our git repository management system, similar to GitHub but open source). The code you produce during Software Hut must be stored in GitLab so that it can be jointly developed by all members of your team, and to ensure that it is backed up.

Access to GitLab is controlled using SSH keys, a method that allows you to securely authenticate with a server without sending a password. You must create an SSH key on each computer that you will use to access GitLab, and register each key's public identifier within GitLab.

Generate an SSH key

Note: You only need to follow these steps the first time you use CiCS Linux.

1. Start the Terminal, by pressing the Windows key on your keyboard to open the dash and typing `Terminal`, or by pressing `CTRL+ALT+T`.
2. Type `ssh-keygen` and press enter. This will generate an SSH key.
3. Press enter to accept the default location to store the key (it will be stored in your CiCS Linux home directory within a directory labelled `.ssh`).
4. You will be prompted for a passphrase to prevent unauthorised use of your key. Enter a password and press enter, then repeat to confirm.
5. If successful the key's fingerprint and randomart image will be displayed.

Import the SSH key into GitLab

Note: You only need to follow these steps once per SSH key.

1. In the Terminal, type `cat ~/.ssh/id_rsa.pub` and press enter. The public element of your SSH key will be output (a separate file contains the private element which should never be shared).
2. Copy the entire output to the clipboard by highlighting it in the Terminal, then right-clicking and selecting copy. You need the entire output beginning with `ssh-rsa` `AAAA` and ending with `@1tspXXX`.
3. Open a web browser by clicking the Firefox icon in the launcher on the left of the desktop.
4. Access GitLab at the following URL: <https://git.shefcompsci.org.uk/profile/keys>
5. Log in using your usual CiCS username and password.
6. Paste the public element of your SSH key into the Key field by right-clicking and selecting paste.

7. Click in the Title field and give your SSH key a suitable label, for example 'CiCS Linux'.
8. Click **Add key** and confirm that the next screen displays your key.

Test you can access GitLab successfully

1. In the Terminal, type `ssh -T git@git.shefcompsci.org.uk`
2. You should see the following message:

```
The authenticity of host 'git.shefcompsci.org.uk (143.167.249.160)' can't be
established.
ECDSA key fingerprint is SHA256:qbKyvtbc//Z+Rp4fs0Cvb4/DzcI69nKoB07odnYkACM.
Are you sure you want to continue connecting (yes/no)?
```

3. Type **yes** and press enter.
4. You will be prompted to unlock your private key - enter the password you set when generating the SSH key. Press enter to continue.
5. You should see a message in the Terminal that reads `Welcome to GitLab, {your name}!`

If you don't see the above message please speak to a member of the epiGenesys staff.