

Introuduction of Github and Loni PipeLine

Learn about Version Control with Git

Git is a free and open source distributed version control system designed to handle everything from small to very large projects with speed and efficiency.

Git is a distributed version control system. In distributed systems, each developer has their own full-fledged repository on their computer. In most set-ups there's an additional central repository on a server that is used for sharing. However, this is not a requirement; every developer can perform all important actions in their local repository: committing changes, viewing differences between revisions, switching branches, etc.

In Git, a file in your working directory can be in one of several states. The most basic distinction is between tracked and untracked. A file is tracked if it is already under version control; in this case, Git observes all changes in that file. If it is not saved in your Git repository, then it is treated as untracked.

Tracked files can be in one of the following three states:

Unmodified or committed

The file is in its last committed state and therefore has no local modifications.

Modified

The file has been changed since it was last committed.

Staged

The file was not only changed but also added to the staging area, meaning that the changes will be included in the next commit. Because a file can be staged partially, it's entirely possible for it to be both staged and modified.

There are some tutorials link:

<https://www.smashingmagazine.com/2011/07/modern-version-control-with-git-series/>

<https://guides.github.com/>

Use Version Control with Github Desktop

Before you authenticate to Github, you have to sign up for a new GitHub account.

After applying an account, you could load CBDA files in your own laptop.

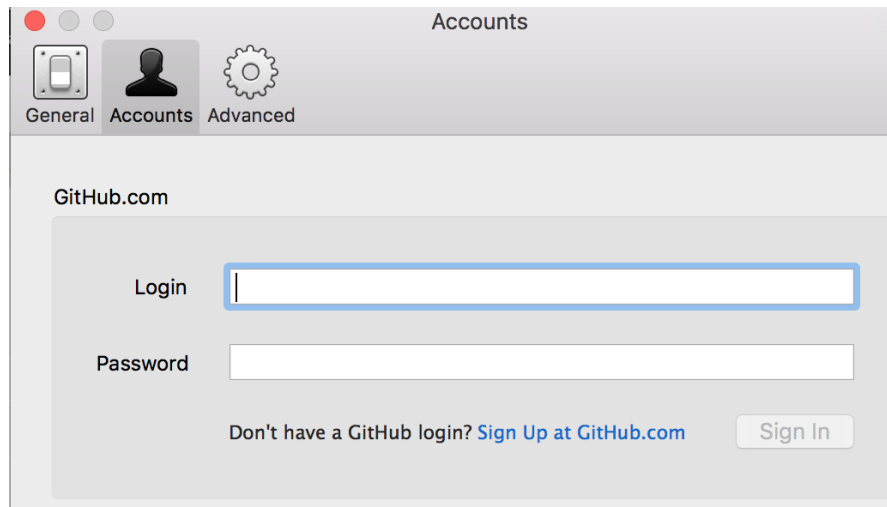
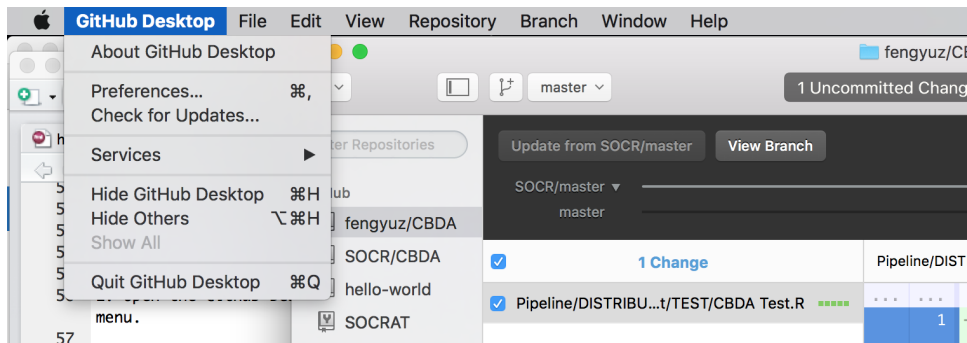
1st step : Download Github desktop

Visit the GitHub Desktop download page:

<https://desktop.github.com>

2nd step : Clone CBDA in your own laptop

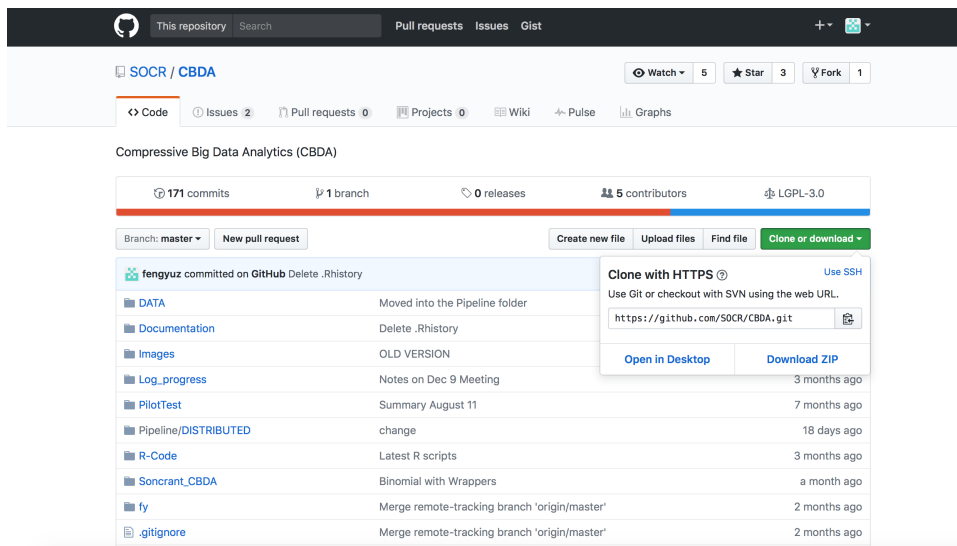
1. Open the Github Desktop, in the upper-left corner of your screen, select the GitHub Desktop menu.
2. Choose Preferences.



3. In the Preferences window, select Accounts.
4. In the Accounts pane, type your GitHub.com credentials and click Sign In.
5. Open the link:

<https://github.com/SOCR/CBDA>

Click the gree button *Clone or download*, then click *Open in Desktop*.



6. In GitHub Desktop, after verifying the name and location on your hard drive where you'd like to clone the repository, click Clone

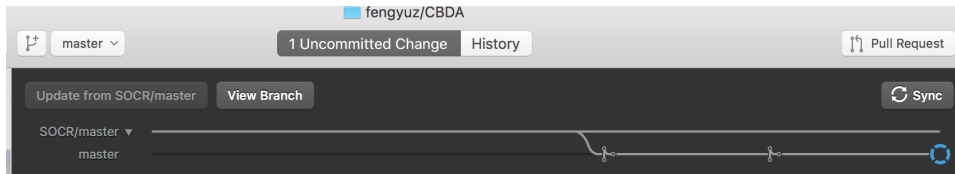
Then you have cloned the CBDA file in your own laptop.

3rd step : Sync and make commits

About Sync

If a team member has changed some files or add something new to the project, and you want to keep updated with the remote server. In the upper-right corner of the Desktop, click **Sync**.

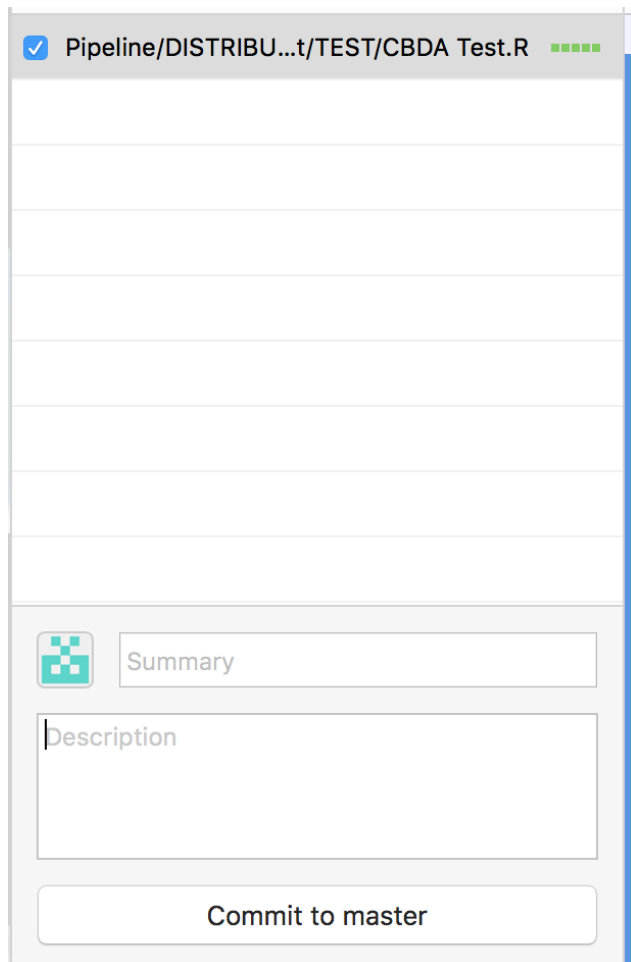
As you make changes to your project locally, you can keep them up-to-date with your remote repository. In this project, a *remote* is the CBDA server.



About Commits

When you want to create something or do some changes to the files in your project, you could push it to your project by creating *commits*, which briefly describes the changes.

As commits are pushed to your project on GitHub, you can keep your local copy of the project in sync with the remote repository.



This is a tutorial about Contributing to Projects with Github Desktop:

<https://help.github.com/desktop/guides/contributing/>

Learn about the LONI Pipeline

1st step : Download the LONI Pipeline

Visit the Pipeline download page:

<http://pipeline.loni.usc.edu/products-services/pipeline-software/>

2nd step : Apply to a LONI Pipeline guest account

Open the link: <http://pipeline.loni.usc.edu/products-services/pws/>.

Then click *Click here to launch the Pipeline Web Start* to download the JNLP file.

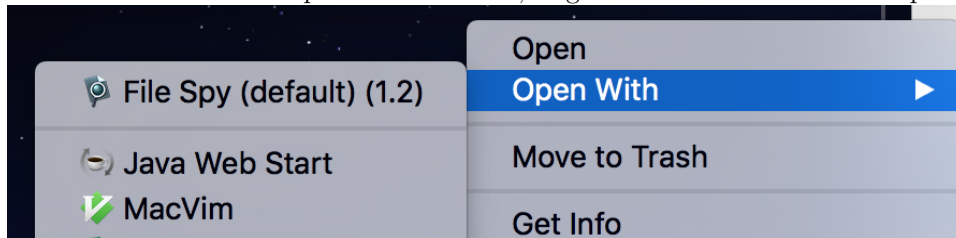
Pipeline Web Start

Pipeline Web Start (PWS) allows users to start and run the LONI Pipeline application from a web browser without installation. Users who choose this application will have access to all of the functions and features included in the downloadable version. PWS is accessible via an anonymous guest login or user authentication to connect to remote Pipeline servers.

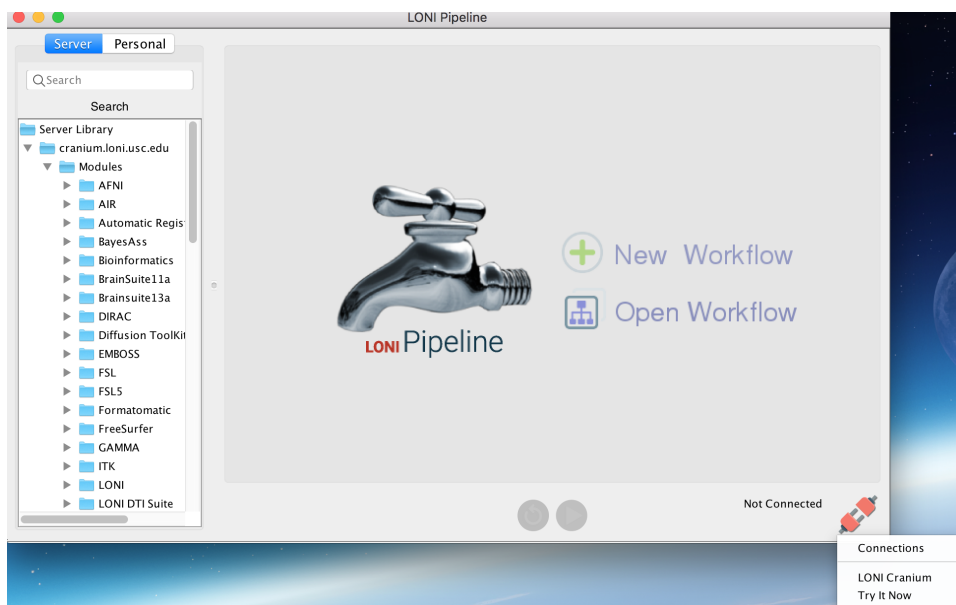
Alternatively, you can download the installer for the LONI Pipeline desktop application [here](#). Desktop application and web start have the same features.

 [Click here to launch the Pipeline Web Start](#)

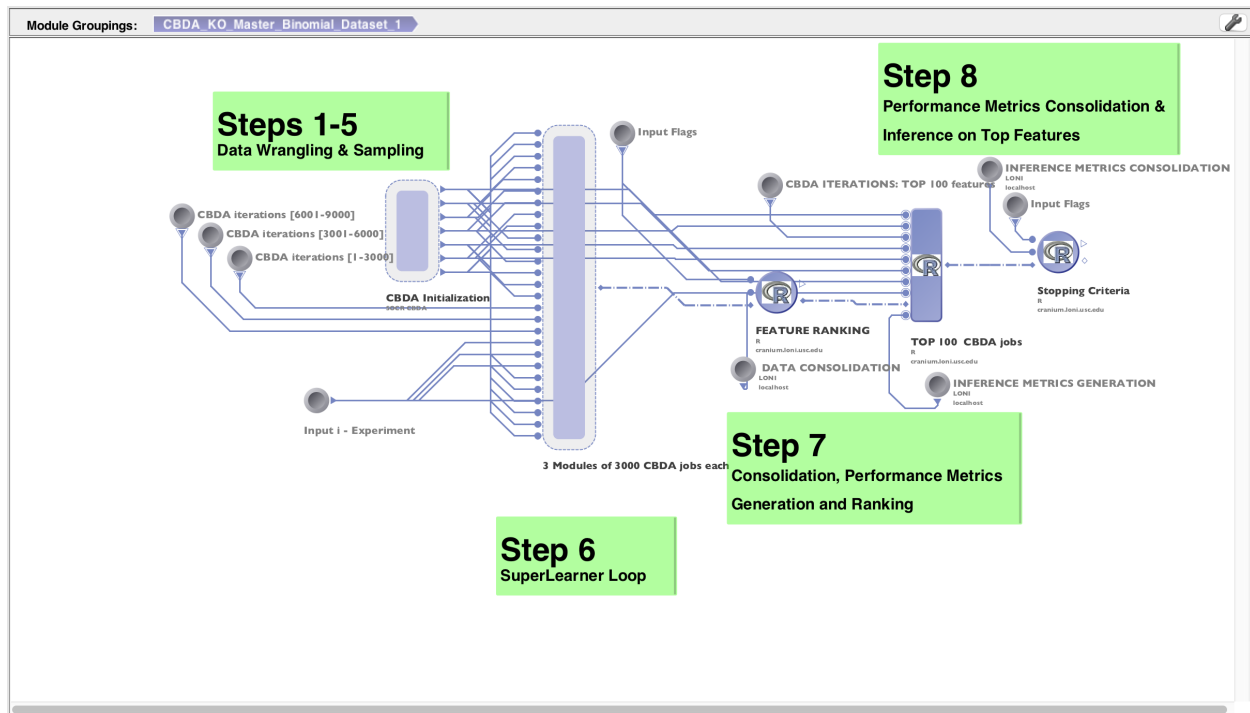
After download the Pipeline JNLP file, right click it and choose open with Java Web Start.



When the LONI pipeline is running, at the bottom right there is an icon and it says Not Connected. Click the button and select *Try it now*, then the button change green and it would say Connection.



The CBDA workflow could be run in the LONI Pipeline, the picture of the workflow is:



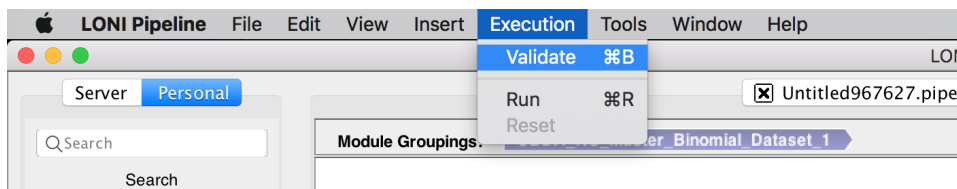
You could use the link to download the pipe file:

https://github.com/SOCR/CBDA/blob/master/LATEST%20RELEASE%20September%202017/CBDA_KO_Master_balanced_complete_INFERENCE.pipe

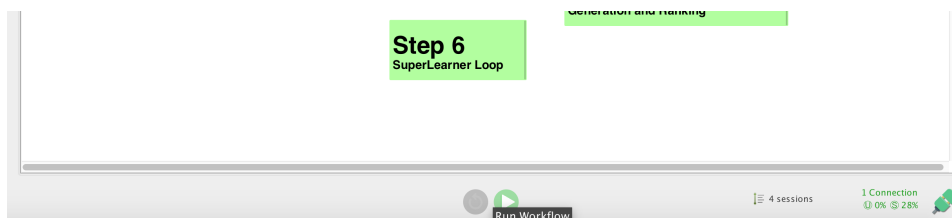
The file used in the pipe file could be found here:

<https://github.com/SOCR/CBDA/tree/master/LATEST%20RELEASE%20September%202017>

Before running the workflow, check the validation first:



If all of the validations are passed, click the green button at the bottom to run it.



After running all of the workflow, the file is stored in the /ifshome/pipelntv, which is set as the default home directory of the output file.

To copy the file to your own pipeline directory, use the pipe file:

https://github.com/fengyuz/CBDA/blob/master/fy/CBDA_copy.pipe

using `dir.create("~/own_directory/")` to creat your own directory in the `/ifshome/pipelnvt/own_directory/`, then using the `file.copy()` to copy the file from `/ifshome/pipelnvt` to `/ifshome/pipelnvt/own_directory/`

The R file could be found here:

https://github.com/fengyuz/CBDA/blob/master/fy/COPY_files_on_CRANIUM_NEW.R

Then the output file could be found in `/ifshome/pipelnvt/own_directory/`