Git-LFS

File limits:

▸ **GitHub: 100 MB**

▸ **Git LFS: 2 GB**

Cumulative limits:

▸ **GitHub: ~1 GB per repo**

▸ **Git LFS: 50 GB data packs (organization-level)**
  - ◉ **+ 50 GB/month bandwidth**
  - ◉ **We'll purchase these as needed**

Using Git-LFS

1) Identify large files

   ▸ **Pretty much anything that isn't code**

2) See if git-lfs is already enabled for that repo

   ▸ **git lfs track**

3) If not already sufficient, then add appropriate tracking patterns

   ▸ **git lfs install # only if step 2 returns nothing**

   ▸ **git lfs track *.nc4**

4) Add your large files to the repo

5) Make sure your files and patterns are tracked by git

   ▸ **git add .gitattributes**

   ▸ **git add * # new files**

6) commit, push, pull, fetch, clone and proceed as you would with any other repo

Using Git-LFS

6) commit, push, pull, fetch, clone and proceed as you would with any other repo

There is a difference but it's largely transparent to the user

When you push to GitHub, any files that are tracked by LFS will go to a remote server (the LFS Store)

The GitHub repo will only contain a pointer to that file

When you fetch/pull/clone an LFS-enabled repo from GitHub, LFS will check to see if you have the large files on your computer (local LFS cache). If not, it will retrieve them from the LFS Store as needed.

For more information

JEDI Git-LFS page
https://jointcenterforsatellitedataassimilation-jedi-docs.readthedocs-hosted.com/en/latest/developer/
developer_tools/gitlfs.html

GitHub's Help page:
https://help.github.com/articles/about-git-large-file-storage/

Tutorial:
https://github.com/git-lfs/git-lfs/wiki/Tutorial

Installation? Already installed in the JEDI singularity container

Binaries available for download on:
https://git-lfs.github.com

Or, on a Mac:

brew install git-lfs