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Key advantages:

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- maintain complete history
- can roll back to any previous commit
- easy to experiment: clone, change, then trash it!

What is *Distributed* Version Control?

Old-school: RCS, CVS, subversion

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Git *centralized model*:

- Clone the central repo (one-time only) to your local machine. Gives you:
 - Your working-copy of files, and
 - a local repo (inside `.git/`), with full history.
- Edit working copy, and then commit to local repo.
- When stable, **push** changes back to central repo.
- Frequently: **pull** changes from central repo.

Centralized workflow mantra

- 1. `pull`
- 2. `edit`
- 3. `commit`
- 4. `pull`
- 5. `push`

Do steps 2-3 often (e.g. every time it compiles successfully);

do steps 4-5 whenever you are passing all your tests.

Centralized workflow mantra

- 1. `pull` at start of work-session
- 2. `edit`
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some helpful git commands

Syntax: `git command-name options`

Examples:

- `git clone https://ibarland@bitbucket.org/ibarland/sample.git`
- `git pull`
- `git status`

- `git diff someFile`

- `git add othrFile`

- `git commit .`
- `git push`

Many more commands and concepts (e.g. forking, pull requests); see tutorials and/or “The Git Book”.

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- `git commit .` wise to commit per-dir
- `git push` back to central repo

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