

Version Control: git

A complete history of your work

What is version control?

- A tool to:
 - Back-up files
 - Save history of changes
 - Collaborate and combine changes

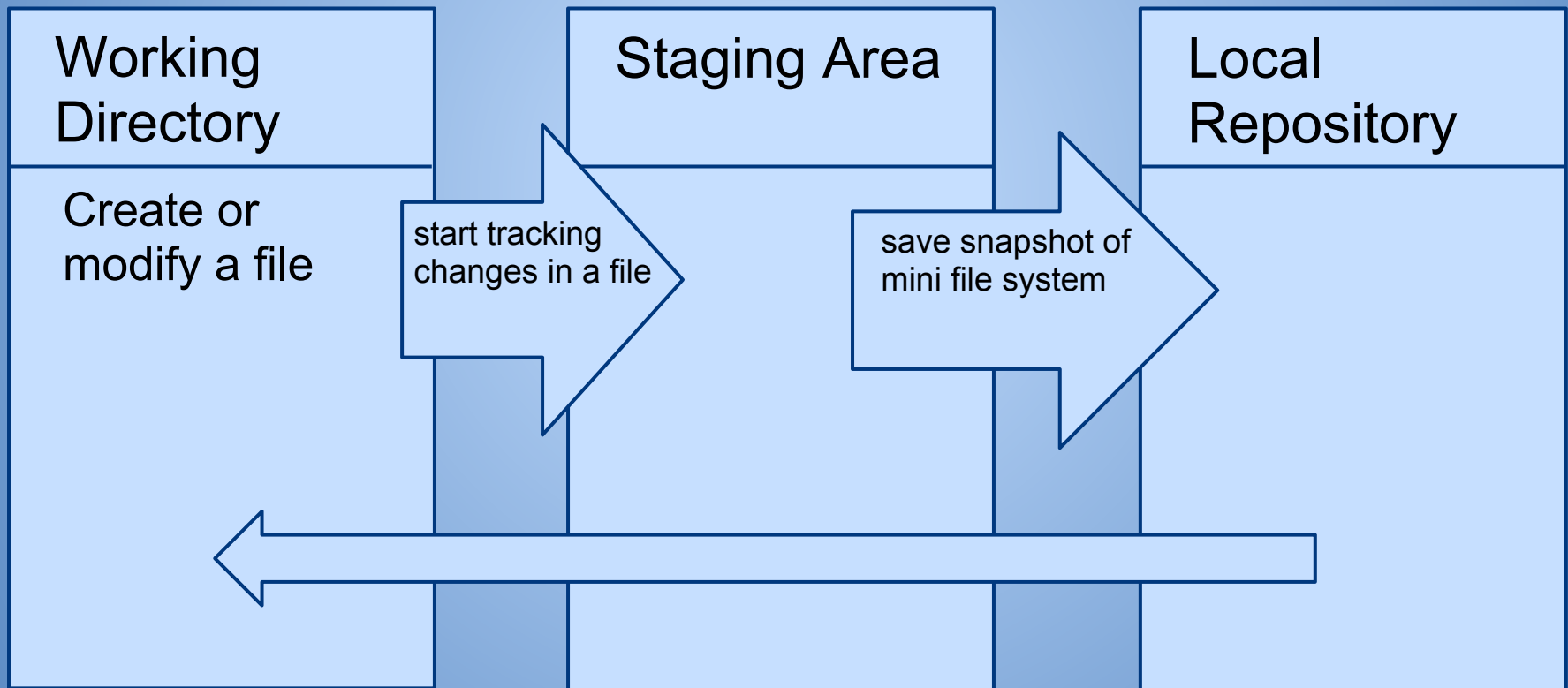
Why version control?

Case Studies:

1. Avoid scripts named `_final_final2.py`
2. Your code used to work and now it doesn't
3. Recreate a figure you made 2 years ago
4. Find where you introduced a bug
5. Avoid accidentally overwriting changes someone else made to code
6. Make your process transparent to others
7. Make your code easy to share
8. Avoid updating the wrong version of your code
9. Know what changes you made when

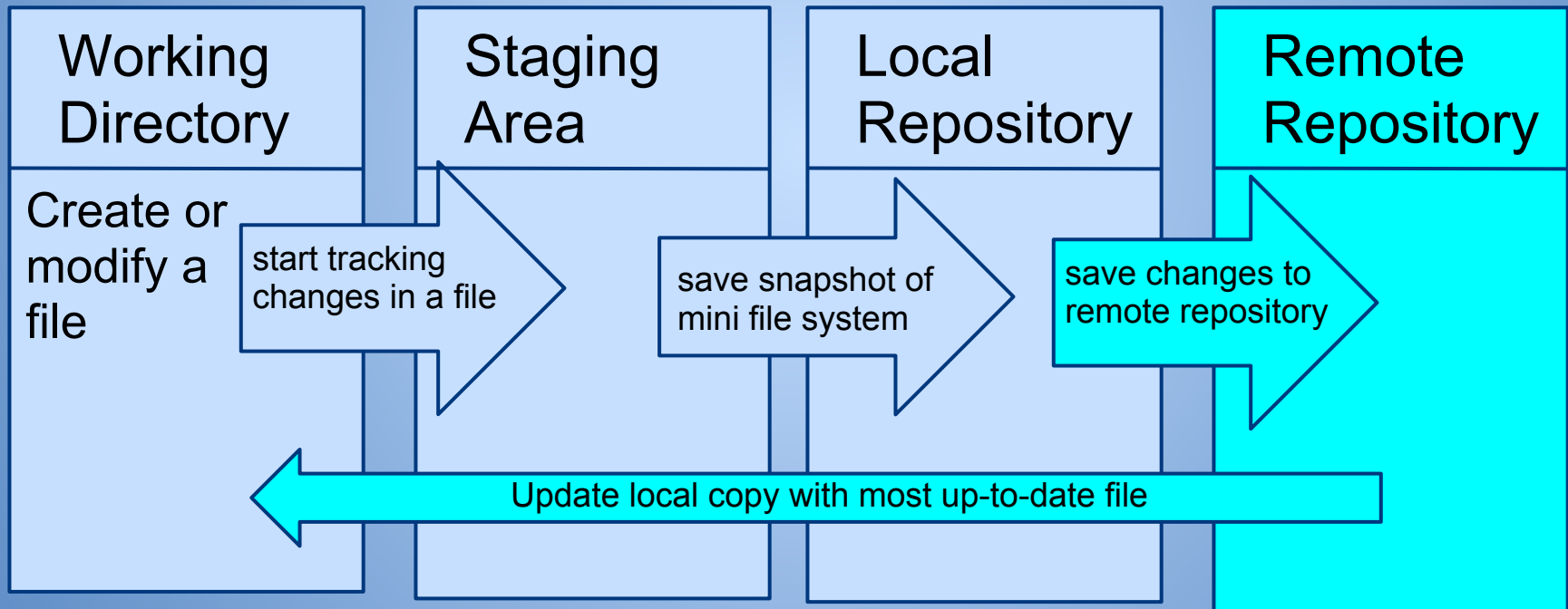
How? The Structure of Git

Local repository - track your own changes

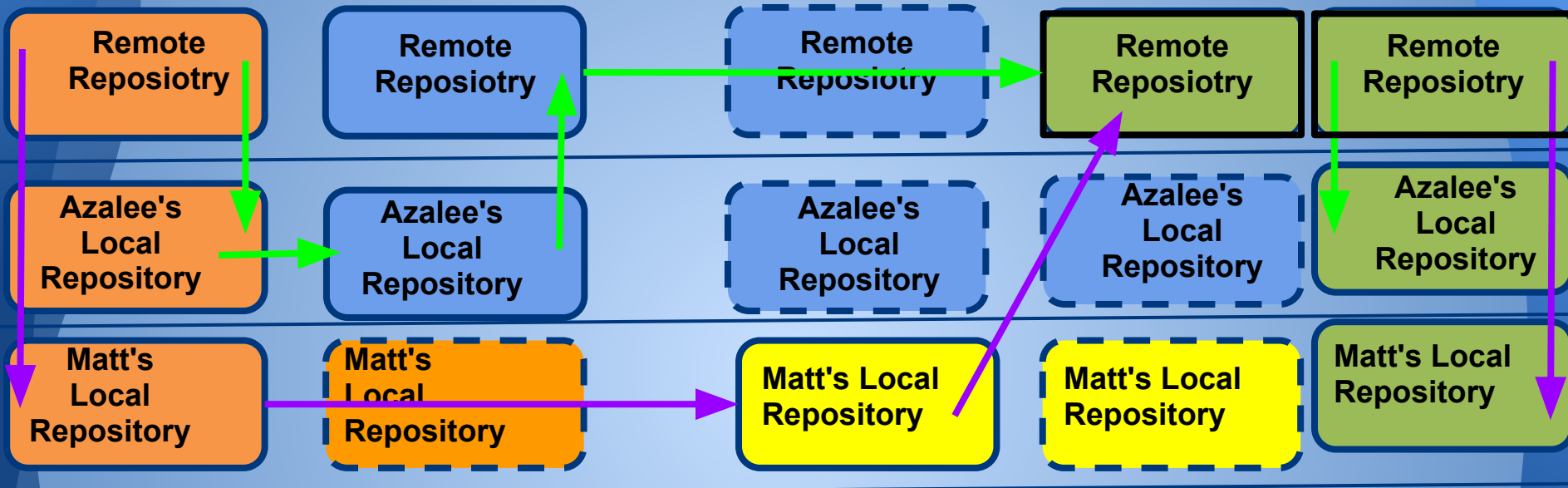


How? The Structure of Git

Remote repository - track changes of multiple users



Multi-Users Workflow



Time

Azalee and Matt update their local repositories

Azalee modifies her file and updates her local and the remote repository

Matt modifies his version of the file and updates his local repository.

Matt resolves any conflicts between his current version and the new version that Azalee added to the remote repository

Azalee and Matt update their local repositories

Step 1: Get files from a remote repository

1. Clone repository
2. Configure account
3. Pull from remote repository

Type in git bash shell:

```
git config --global user.name "Your Name"
```

```
git config --global user.email email_address
```

```
git config --global color.ui auto
```


Type in git bash shell:

`git pull origin 2013-05-ucdavis`