

# Galaxy Client Architecture

Demo of “Single Page”.

<https://github.com/galaxyproject/galaxy/pull/13984>

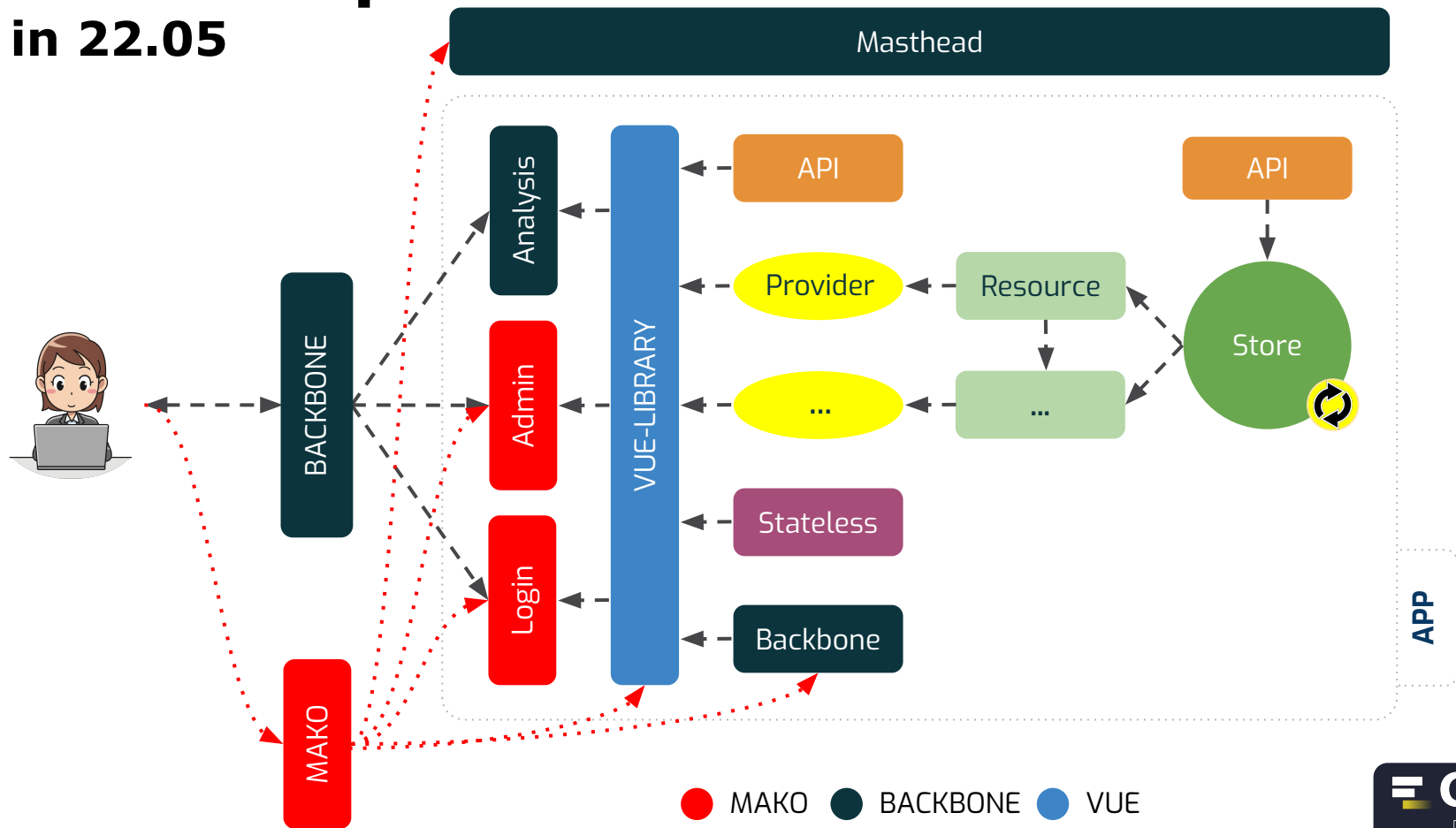
Demo of “Multi-History”.

<https://github.com/galaxyproject/galaxy/pull/13985>

Demo of “myGalaxyUI”.

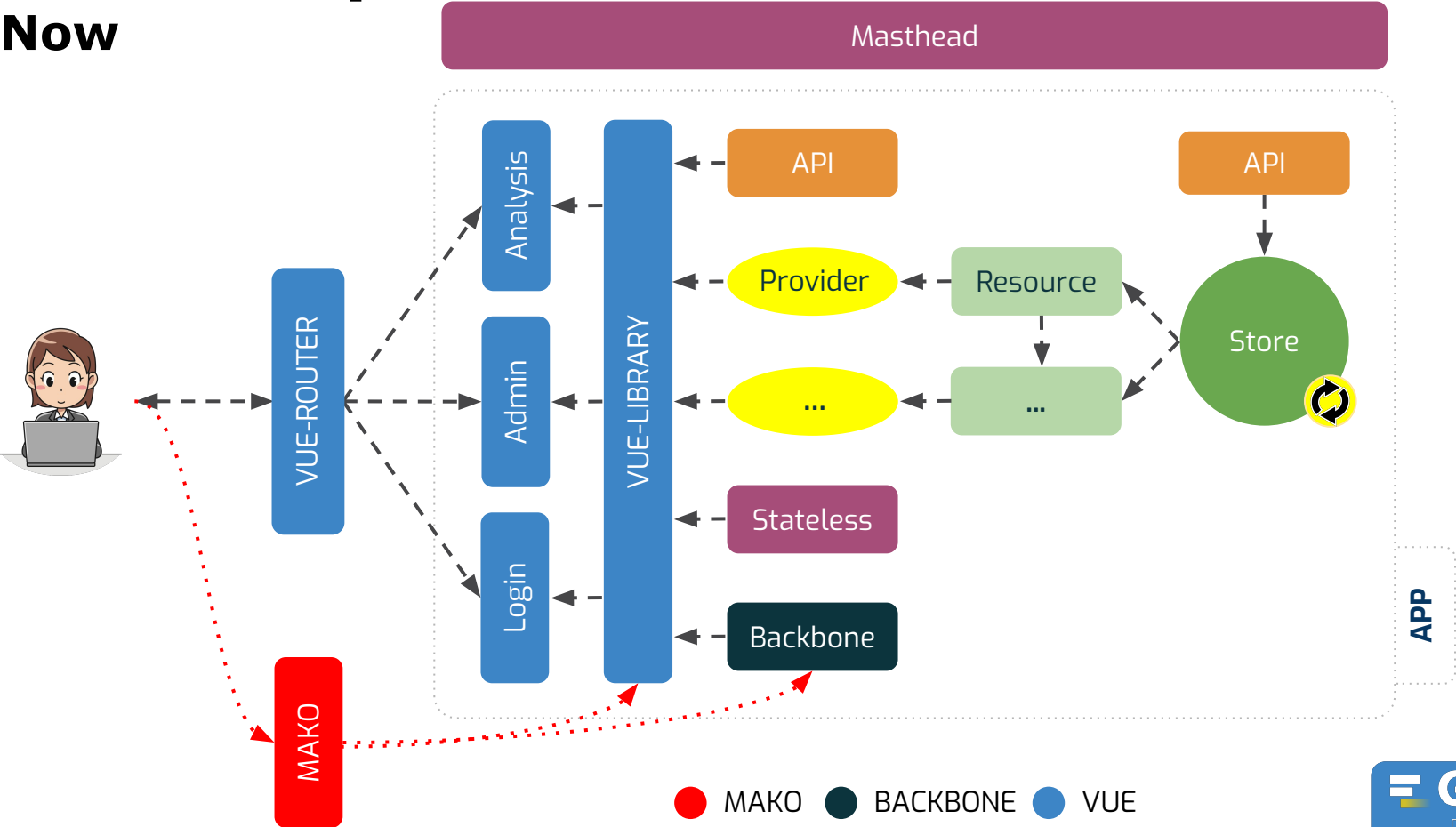
<https://github.com/galaxyproject/galaxy/pull/14523>

# Client Map in 22.05

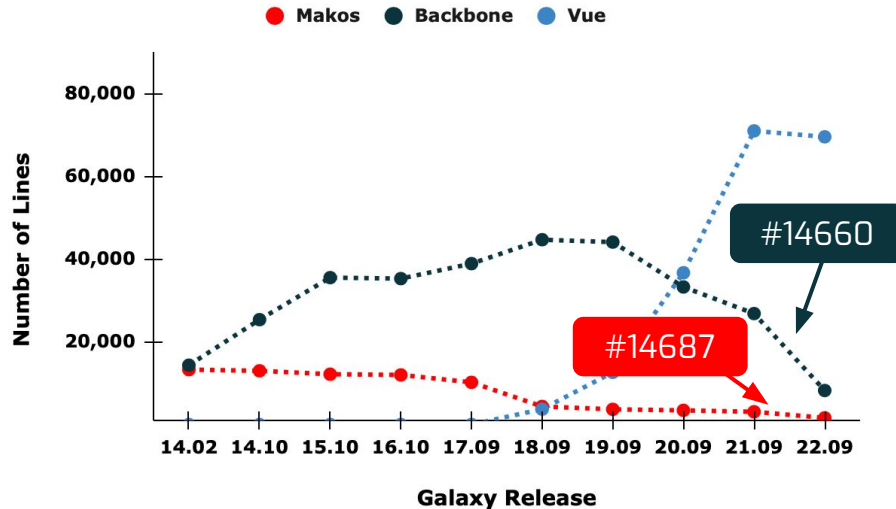
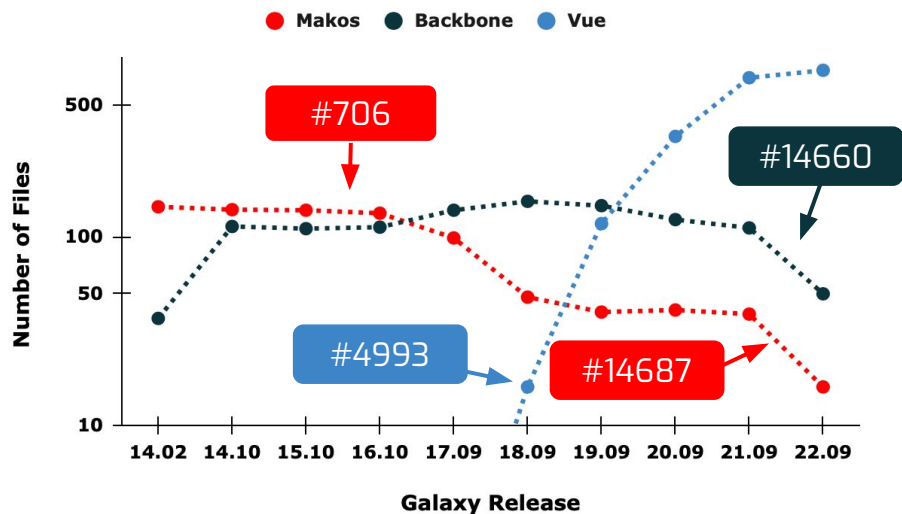


# Client Map

## Now

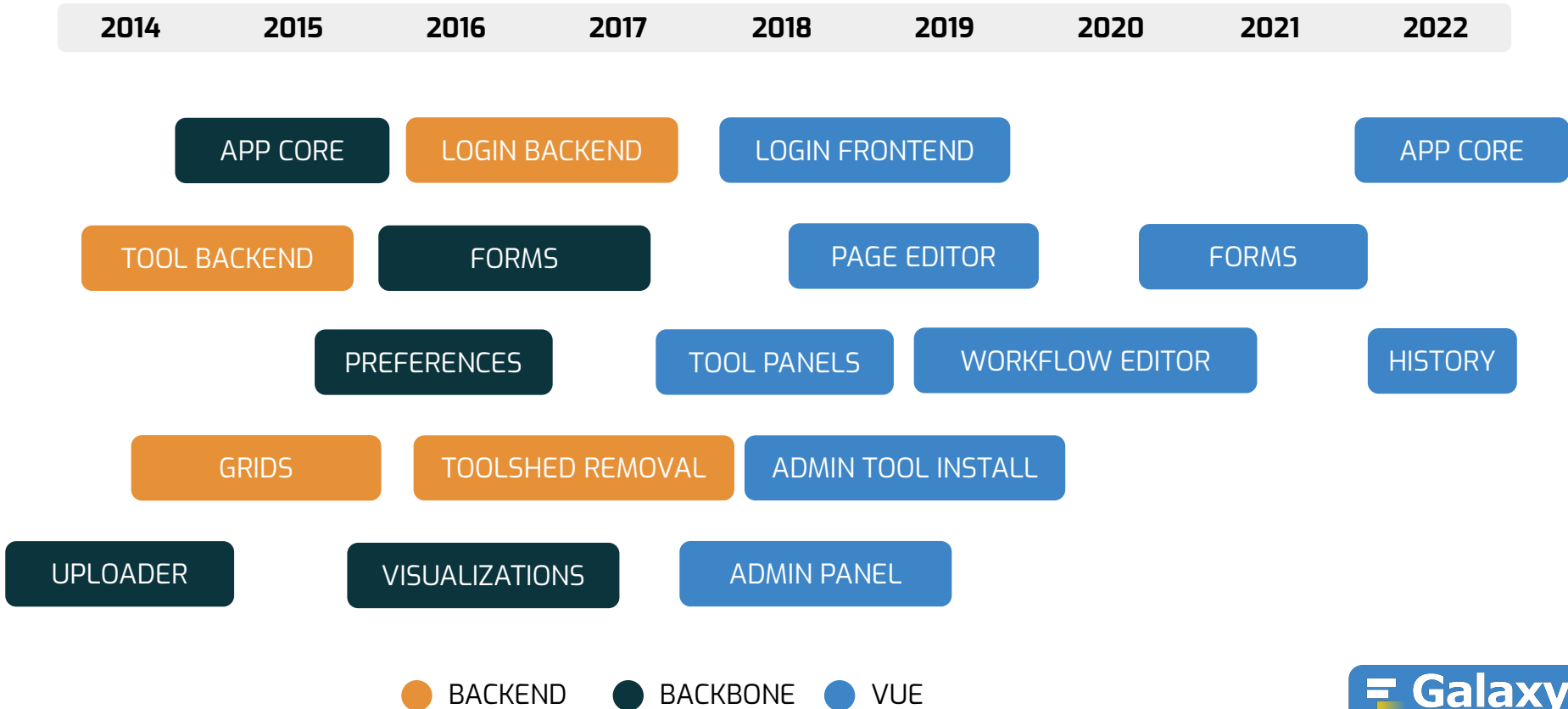


# Modernization Process



Data produced by running: `find . -type f | wc -l` and `find . -type f | xargs wc -l` on the `components`, `mvc` and `template/webapps/galaxy` directories. Changes replace structural makos loading Vue app and mock Masthead.

# Modernization Timeline



● BACKEND ● BACKBONE ● VUE

# Recent Progress

Removal of 11k lines (totals 22k history client code removal)

Staged removal of core makos and associated controllers 20+

Completed rewiring of 100+ routes as Vue-routes

Migrated client layout handling to Vue

# Last Makos

1. [build\\_from\\_current\\_history.mako](#)
2. [phyloviz.mako](#)
3. [sweepster.mako](#)
4. [trackster.mako](#)
5. [tool\\_runner.mako](#)
6. [as\\_xml.mako](#)
7. [list\\_as\\_xml.mako](#)
8. [dataset/copy\\_view.mako](#)
9. [dataset/large\\_file.mako](#)
10. [dataset/display.mako](#)
11. [dataset/display\\_application/display.mako](#)
12. [dataset/tabular\\_chunked.mako](#)



# Benefits Summary

## for Users:

- Instant page rendering without reloads.
- Window location can be copied and shared.
- Increased test coverage.

## for Developers:

- Architecture aligns with current literature.
- Excellent routing features, consistent throughout the application.
- Better software management and feature deployment.
- Allows whole client performance and memory usage analysis.

This work is the result of a **Continuous Community Effort** to modernize Galaxy on all levels throughout many years. Particularly the **UI Team** and:

**@guerler**



Strategy +  
Architecture

Schatz Lab, USA

**@dannon**



Build System +  
WebPack

Schatz Lab, USA

**@jmchilton**



Selenium +  
Implementation

Nekrutenko Lab, USA

**@mvdbeek**



Strategy + API-Architecture

Nekrutenko Lab, USA

**@bgruening**



Planning + Testing +  
Review

Gruening Lab, Germany

**@wm75**



Workflow Validation +  
Editor Testing

Gruening Lab, Germany

Thank you!