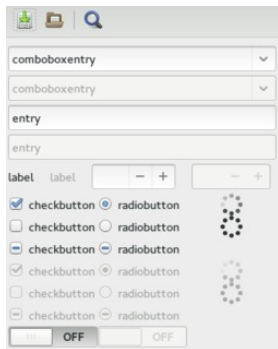


# Challenges to Reproduce an Analysis

## Missing Files



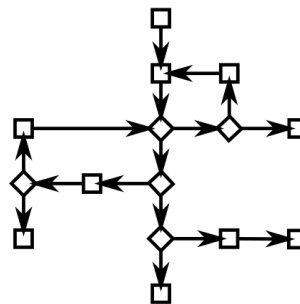
## Untracked GUI Interactions



## Retired Hardware



## Untracked Modifications



## Absent Services



## Researcher Turnover



## Our Solutions

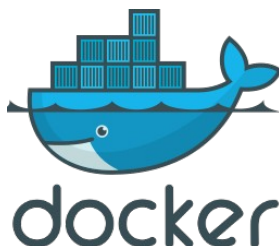
### Versioned Storage



### Full Scripting



### Virtualization



### Version Control



### Extensive Serialization

```
ls -lh \  
*.rds \  
*.json \  
*.sqlite \  
* +srv \  

```

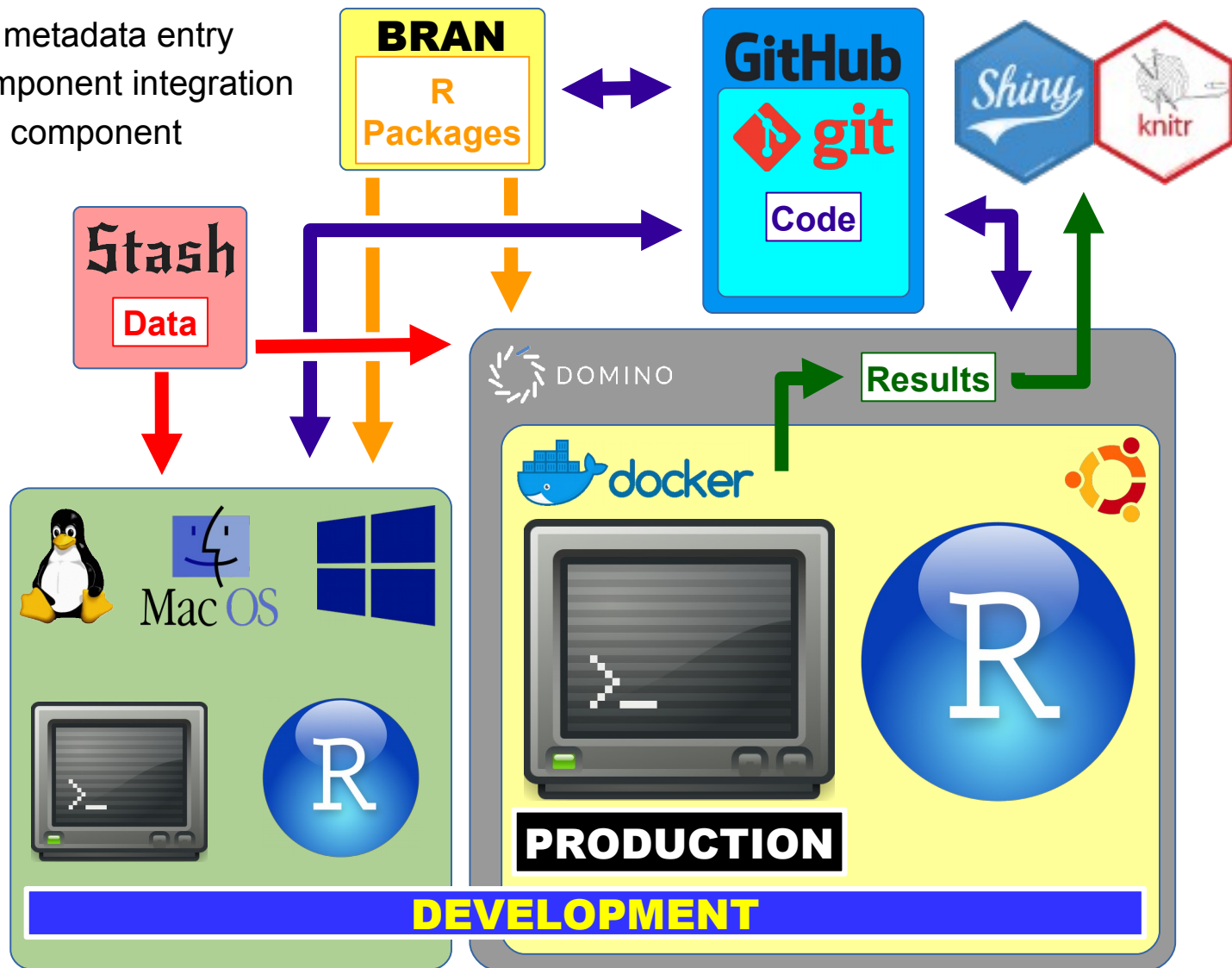
### Documentation



**Jira:** Project initiation & tracking, metadata entry  
**PURR:** Internal tool providing component integration  
**Culture:** An essential, non-trivial component

**Development** can be done however and wherever best suits each researcher.

**Production** MUST be run in Domino, via script.



# Making a Note Here, Huge Success

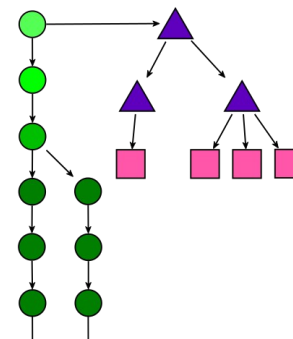
## R Does Bioinformatics



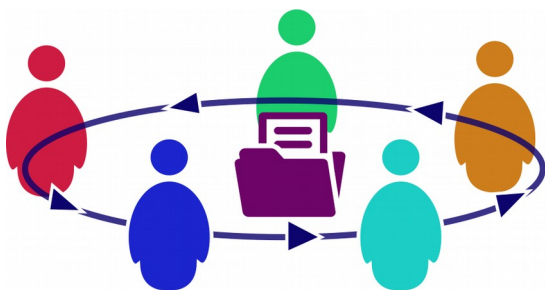
## Fully Adopted in Team of 50+, Still Evolving



## Complete Traceability on all Analyses



## Standards Enhance Collaboration



## Shared Code Accelerates Research



## More Info on GitHub



[maptracker/EARL-2018](#)