Iceberg:

Next generation source code versioning

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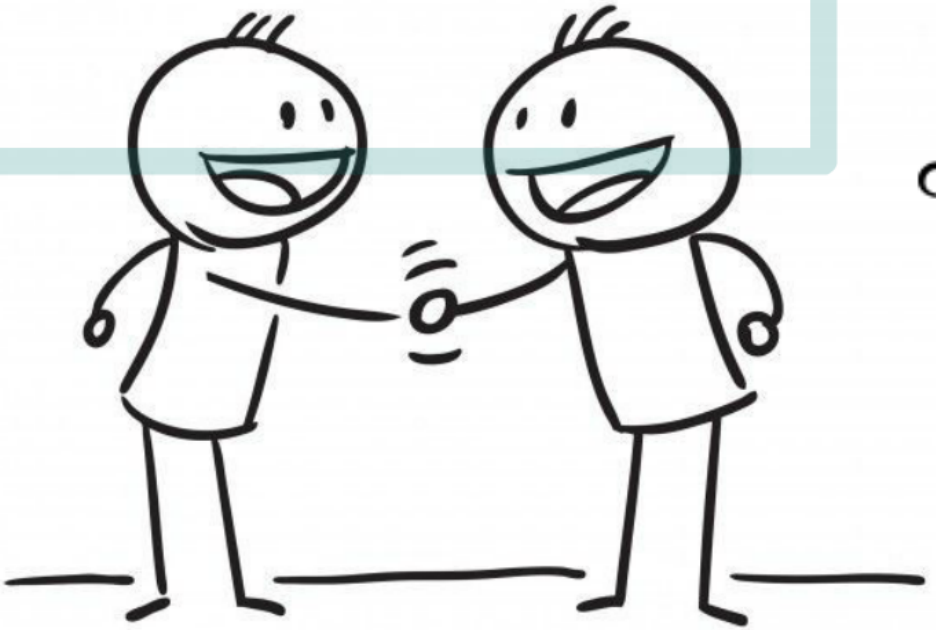
What is Iceberg?

Atlassian Bitbucket



CloudForge by CollabNet

mercurial

Pharo

git + github SOCIAL CODING

Why do we need Git when we have Monticello?

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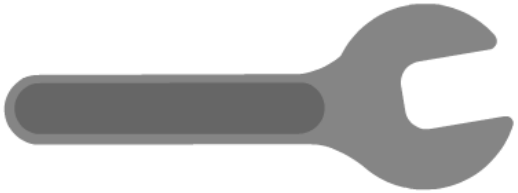
?

?

Why do we need another Git tool?

?

Tools



Manage your repositories

Commit
Pull / Push

Branch
& Merge

Architecture

A set of models:

- **Commits & versions**
- **Branches**
- **Code**
- **Changes**

… designed for building more tools on top of them:

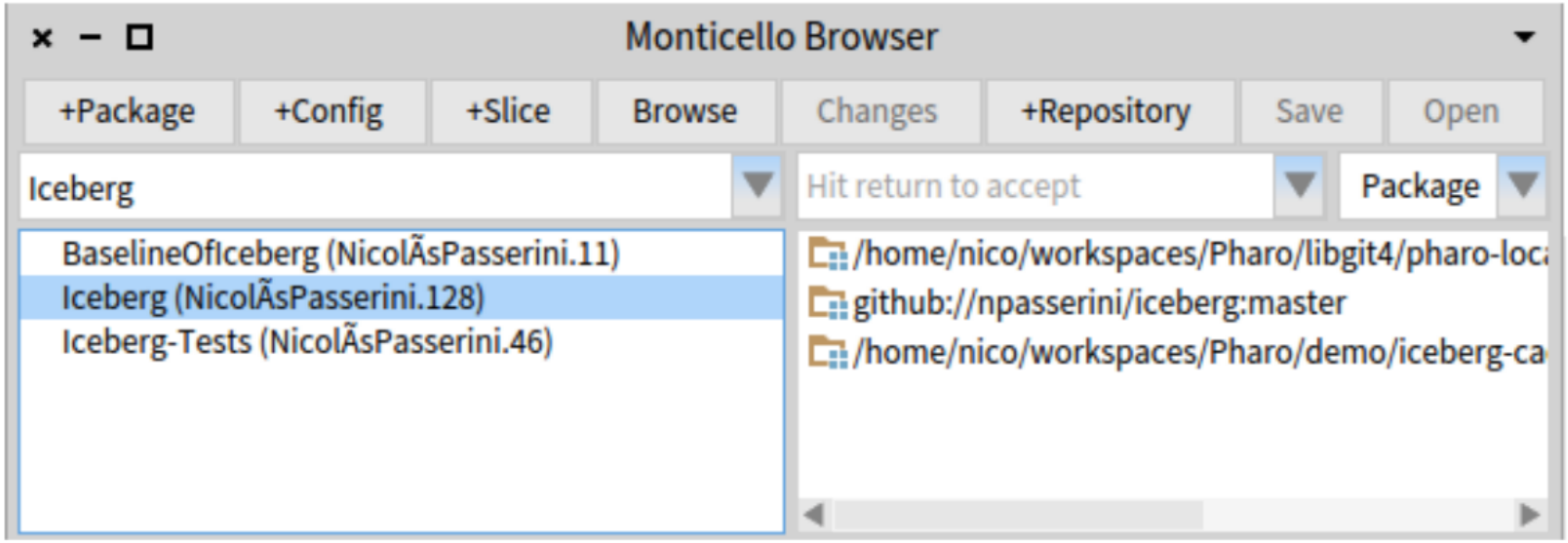
- Other *backends*
- Other file formats
- Code analysis
- Other visual tools

Vision

What do we need to *really* move forward?

1. ***Smart*** **backwards compatibility**
2. ***Smart*** **integration with git**
3. **Be prepared for larger projects**

We ~~can~~ must be backwards compatible,



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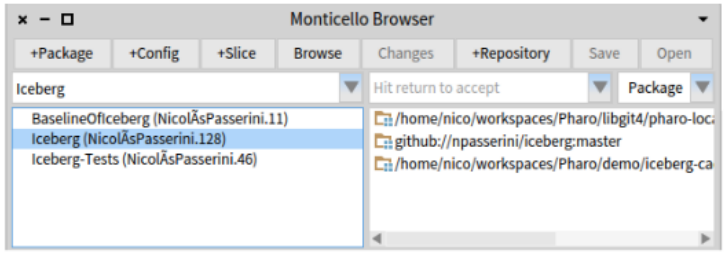


~~Package oriented~~

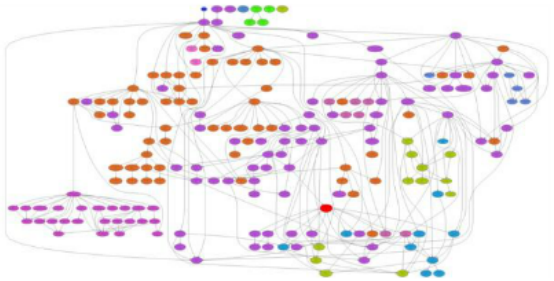
~~Sequential version numbering~~

~~Branches based on naming conventions~~

...but new repositories might not fit in our current versioning system

and our projects have new requirements...

Multiple interrelated packages and versions



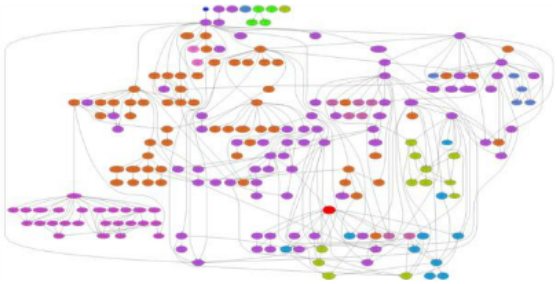
Save more resources than just Smalltalk code

CONFIG android JS SQL .JPG

Useful tools developed in other technologies

Travis CI Jenkins git+github

Multiple interrelated packages and versions



Save more resources than just Smalltalk code

Useful tools developed in other technologies

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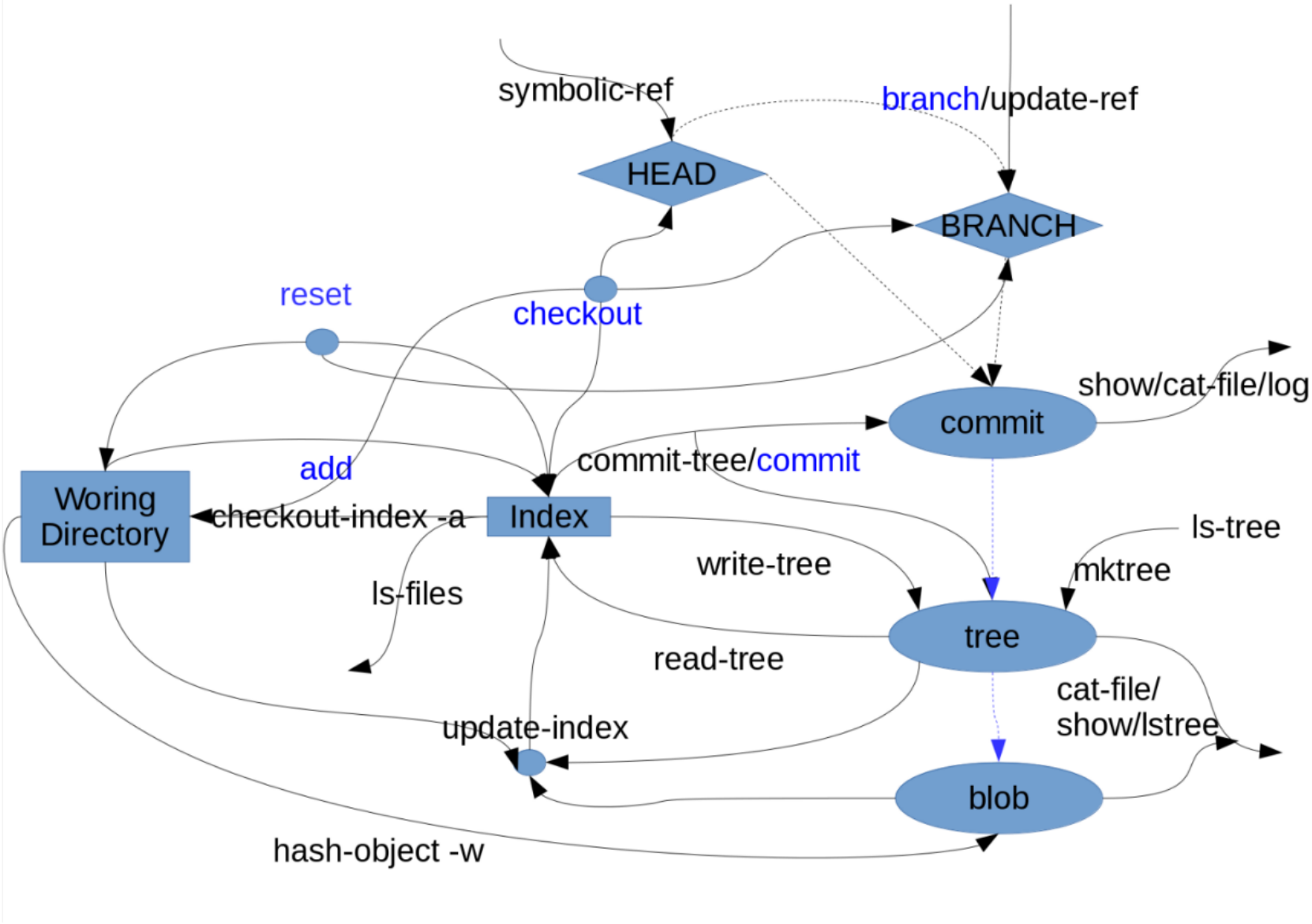
Jenkins

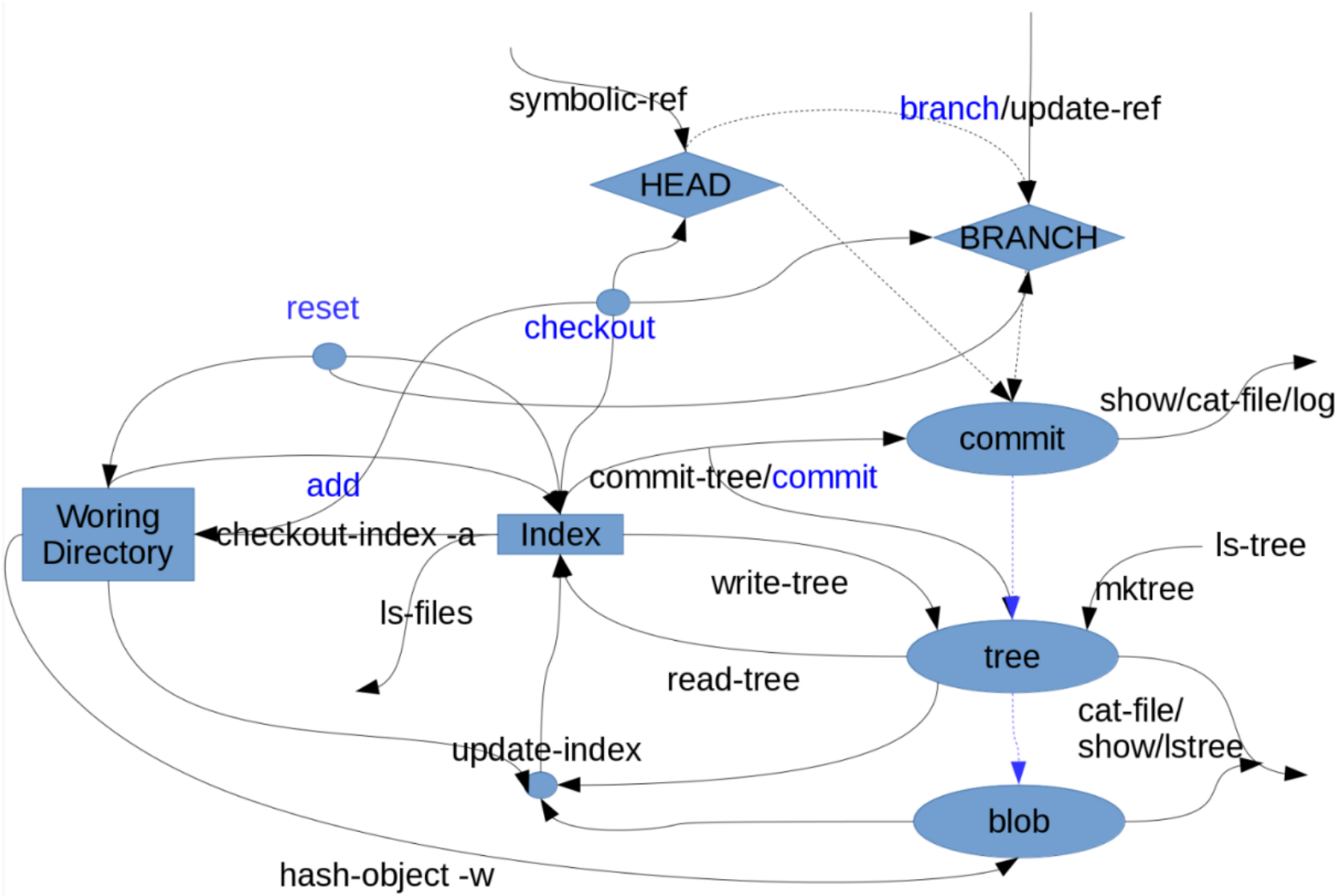
git + github

So we should be able to use new repositories at their full power



How to ~~survive~~ migrate to git?

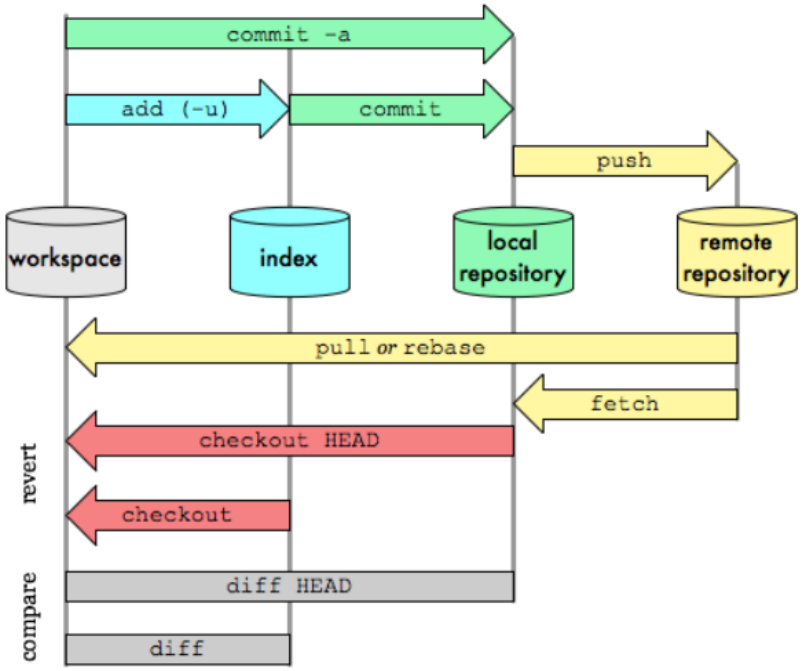
Git is powerful and flexible, ... but extremely complex



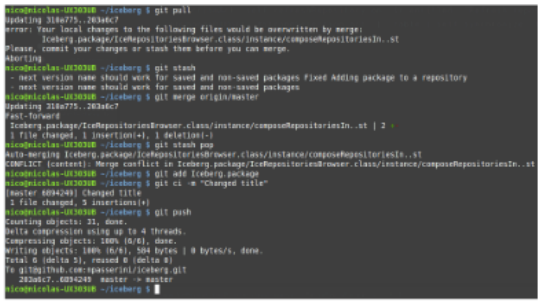
How to ~~survive~~ migrate to git?

Three *key* ideas

1 Better abstractions

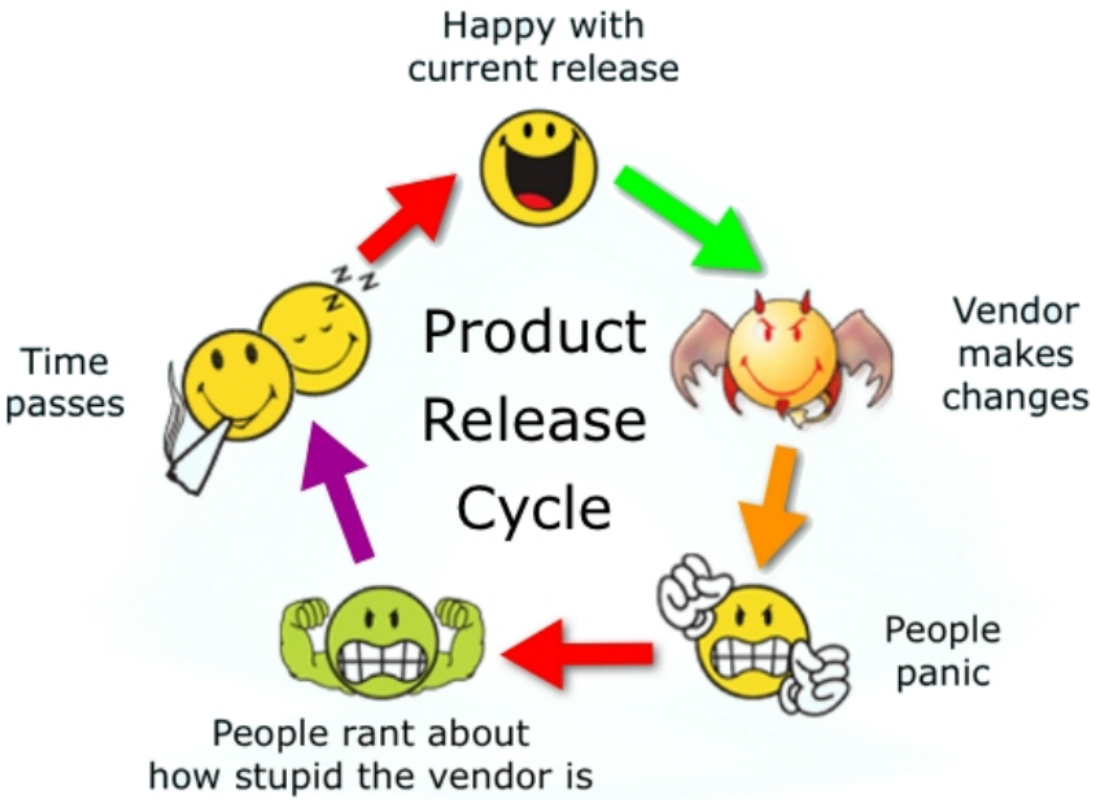


2 Avoid command line



3 Use bare repositories

What about large projects?



1. **Manage dependencies**
2. **Continuous integration**
3. **Simplify Integration**
4. **Automatic merging**
5. **Empower eventual collaborators**

Next Steps

Stabilization
GUI improvements
Full libgit2 integration
Modularization
Performance

Better diffs
Bootstrap support
Migration tools
Pull request integration
Better version naming
Other backends

Questions ?