SymfonyLive Berlin 2025 composer.lock demystified



Nils Adermann @naderman

Private Packagist
https://packagist.com



composer.lock

- Contents

- all dependencies including transitive dependencies
 - all metadata (name, description, require, autoload, extra, ...)
- Exact version for every package
- Download URLs (source, dist, mirrors)

Purpose

- Reproducibility across teams, users and servers
- Isolation of bug reports to code vs. potential dependency breaks
- Transparency through explicit updating process



Commit The Lock File

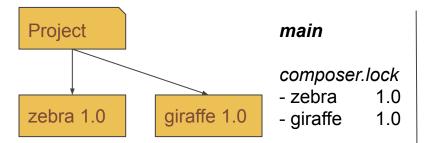
- If you don't
 - composer install without a lock file is a composer update
 - You're not managing your dependencies, they're just doing whatever they want
 - Conflict can randomly occur on install
 - You may not get the same code
- The lock file exists to be committed!

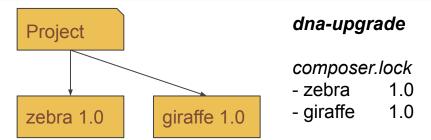




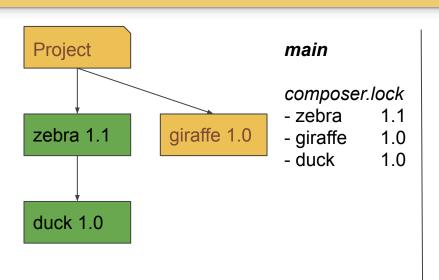
The Lock file will conflict

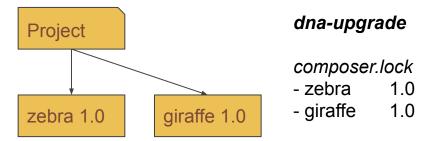
Day 0: "Initial Commit"





Week 2: Strange new zebras require duck

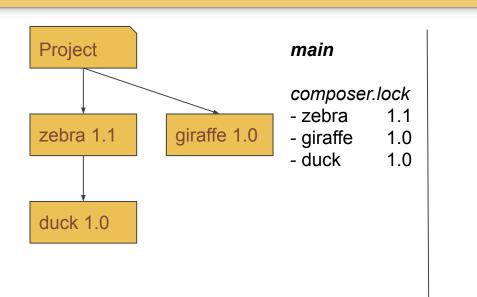


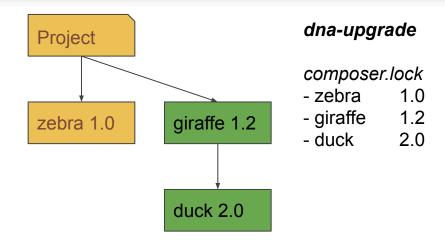






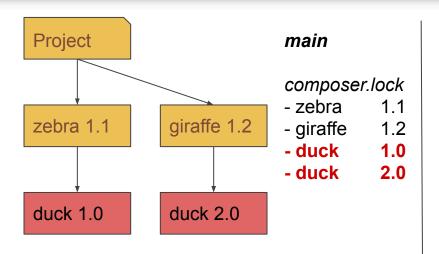
Week 4: Giraffe evolves to require duck 2.0







Text-based Merge

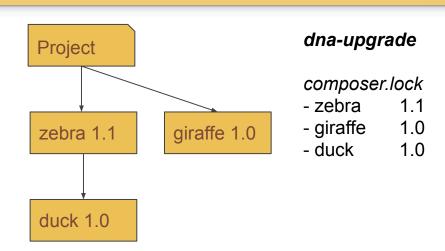


Merge results in invalid dependencies



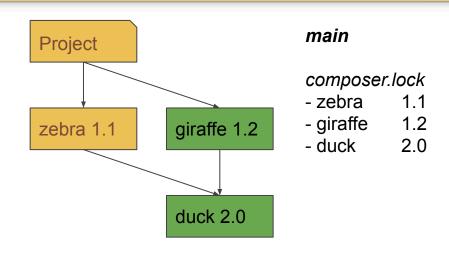
Reset composer.lock

git checkout <refspec> -- composer.lock
git checkout main -- composer.lock



Apply the update again

composer update giraffe
 --with-dependencies





How to resolve lock merge conflicts?

- composer.lock cannot be merged without conflicts
 - contains hash over relevant composer.json values
- git checkout <refspec> -- composer.lock
 - git checkout main -- composer.lock
- Reapply changes
 - composer update <list of deps>
 - put exact command in git commit message

