Trunk Based Development

Kamil Mówiński - STXNext

Agenda

Agenda

What?

Agenda

What? When?

Agenda

What? When? Where?

Agenda

What? When? Where? Why?

Agenda

What? When? Where? Why? Who?

Agenda

What? When? Where? Why? Who?

Agenda

What? When? Where? Why? Who?

Agenda

What?

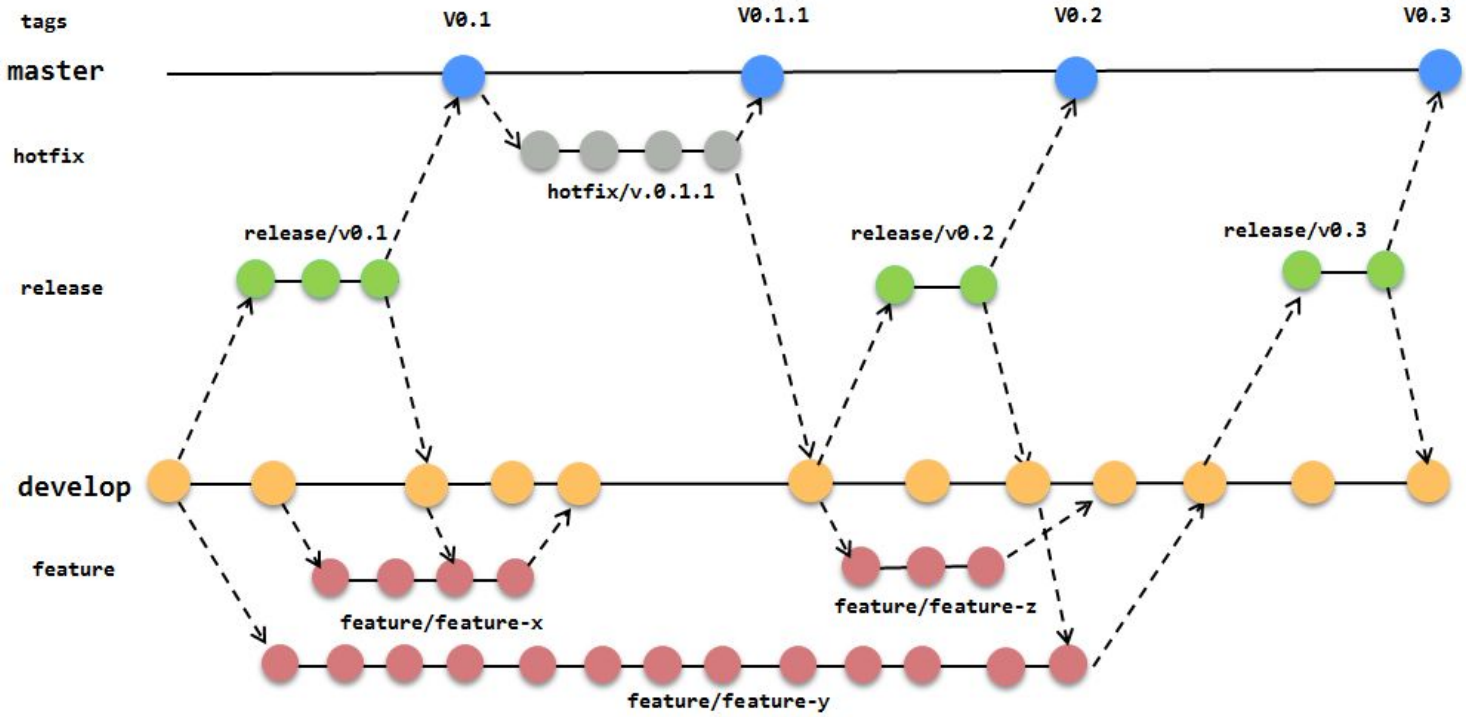
Why?

How?

Agenda

1. What “Trunk Based Development” is?
2. Why should I persuade my company/team to work with TBD?
3. How can I work with daily pushing?
4. Q&A session

Feature Based Development - What is it?



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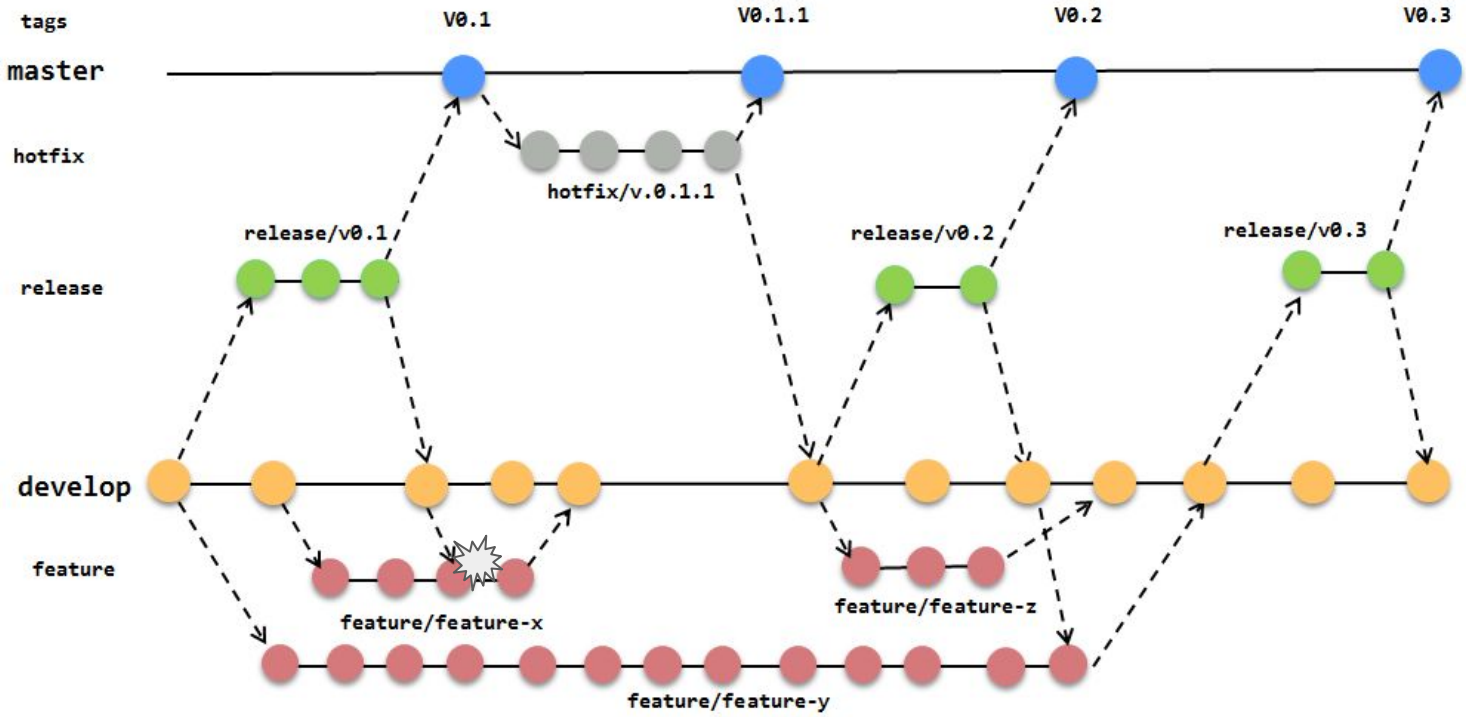

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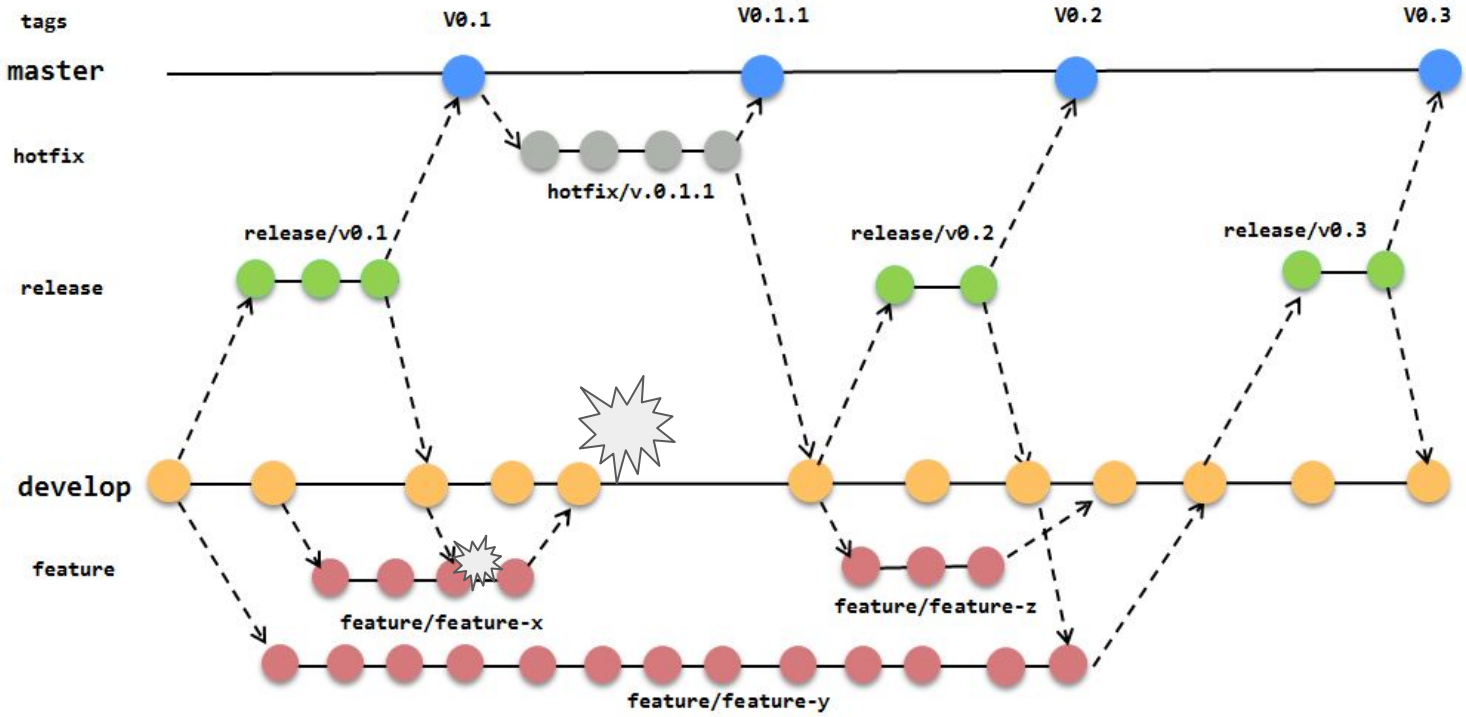

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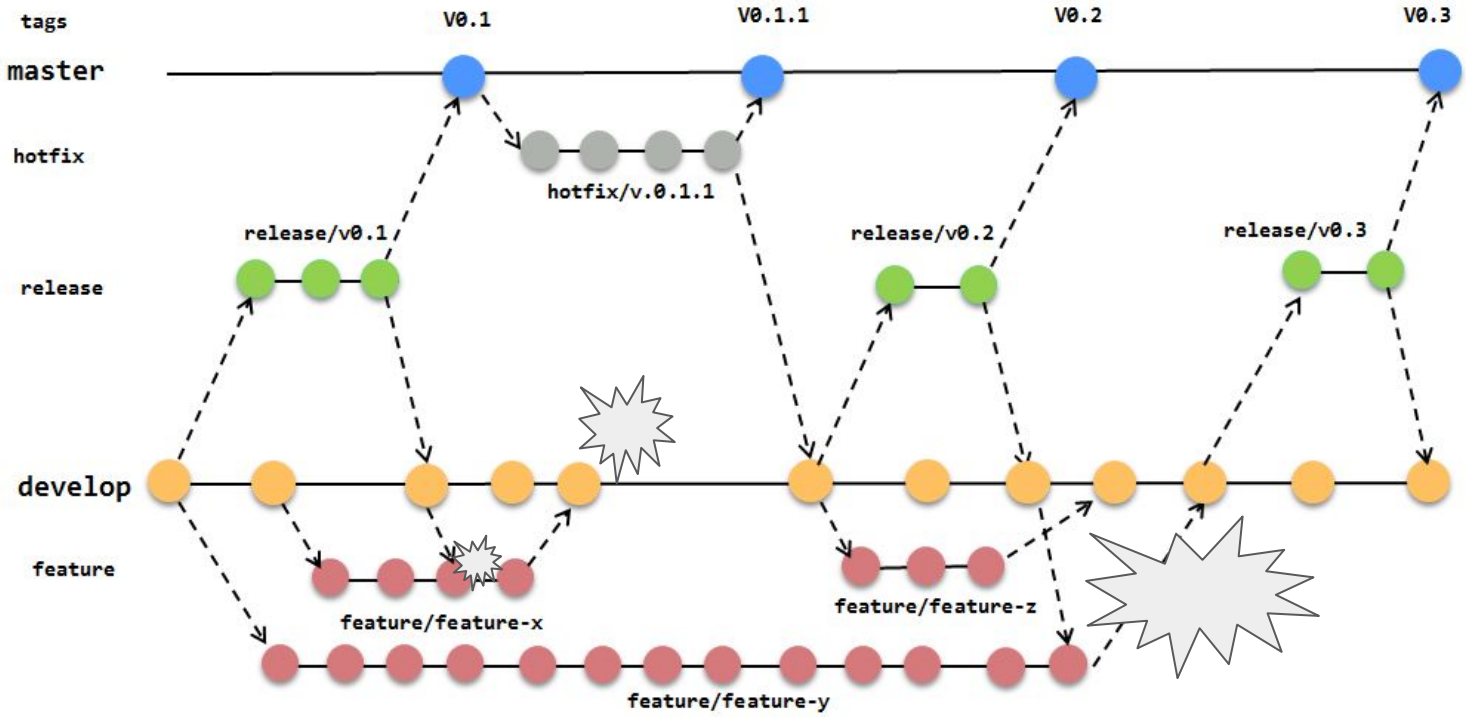

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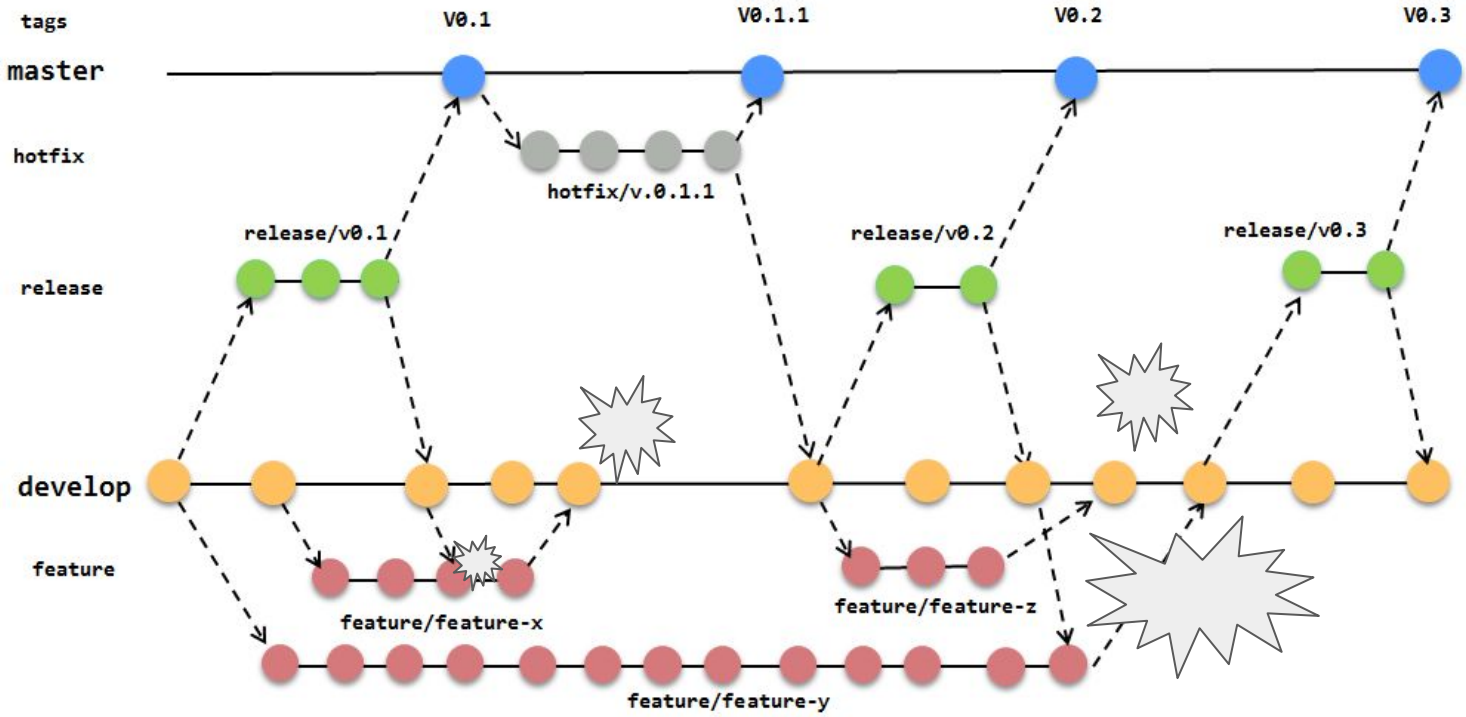

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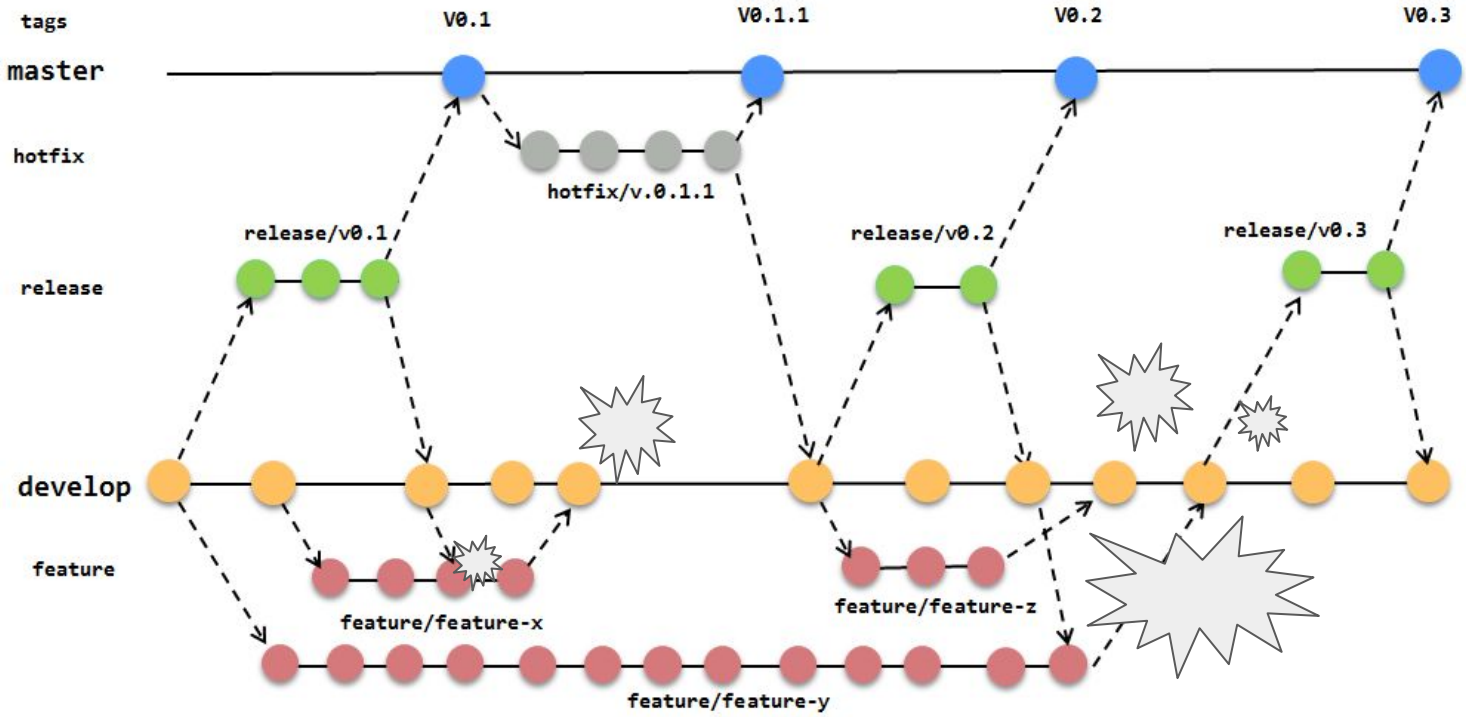


[22:02][system][nick:~/hacking/newast_mirah(old_newast)]$ git merge master
error: refusing to lose untracked file at 'lib/mirah/typer/simple.rb'
error: refusing to lose untracked file at 'javalib/mirah-bootstrap.jar'
Auto-merging test/test_helper.rb
CONFLICT (add/add): Merge conflict in test/test_helper.rb
Auto-merging test/plugins/gwt_test.rb
CONFLICT (content): Merge conflict in test/plugins/gwt_test.rb
Auto-merging test/jvm/rescue_test.rb
CONFLICT (add/add): Merge conflict in test/jvm/rescue_test.rb
Auto-merging test/jvm/main_method_test.rb
CONFLICT (add/add): Merge conflict in test/jvm/main_method_test.rb
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CONFLICT (content): Merge conflict in test/jvm/jvm_compiler_test.rb
Auto-merging test/jvm/javac_test_helper.rb
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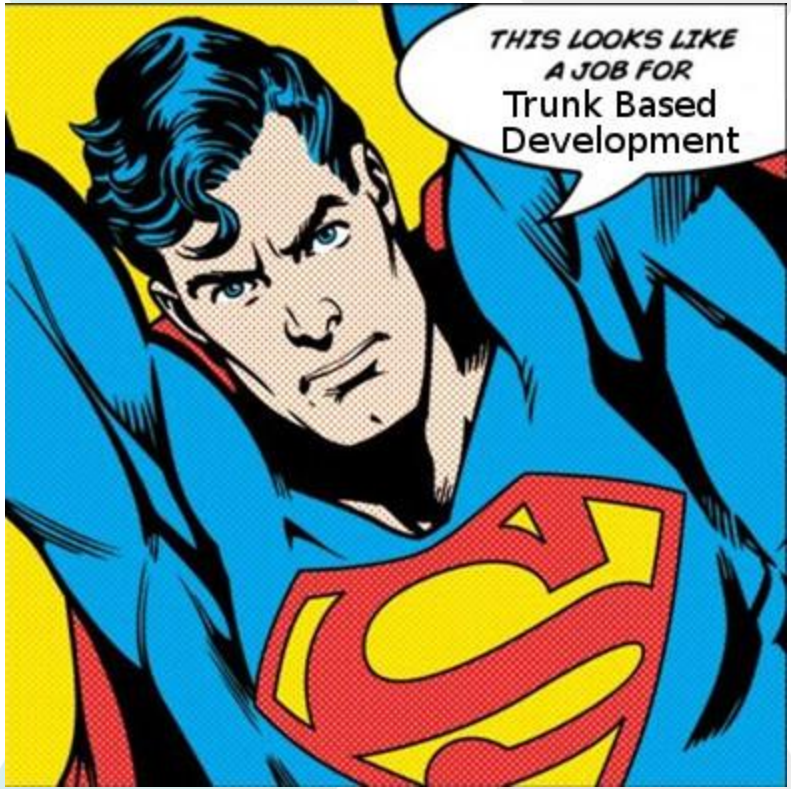
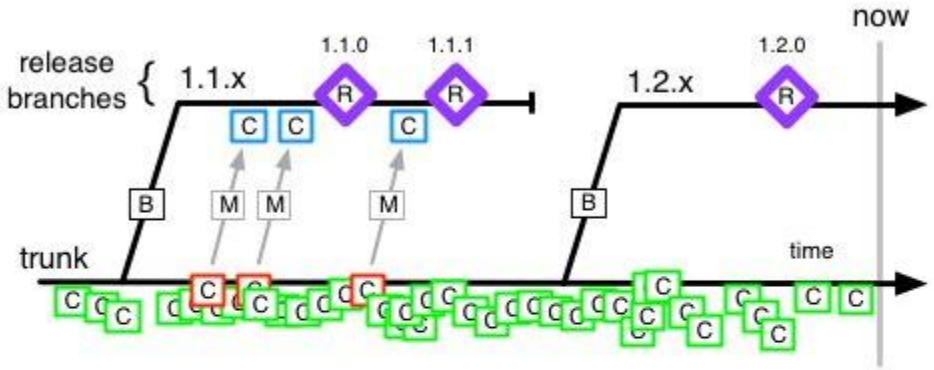
IM GONNA
MERGE IT


MERGE CONFLICT?
GIT PUSH --FORCE
memegenerator.net


THIS LOOKS LIKE
A JOB FOR
Trunk Based
Development

Trunk Based Development



Core rules of Trunk Based Development

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- Local branches should be as short-living as possible
- HotFix also commits into mainline branch
- Cherry-picked hotfix to Release branch
- Only Release Manager can branch release branches
- Developers do not break the build with any commit.

Why should we use Trunk Based Development?

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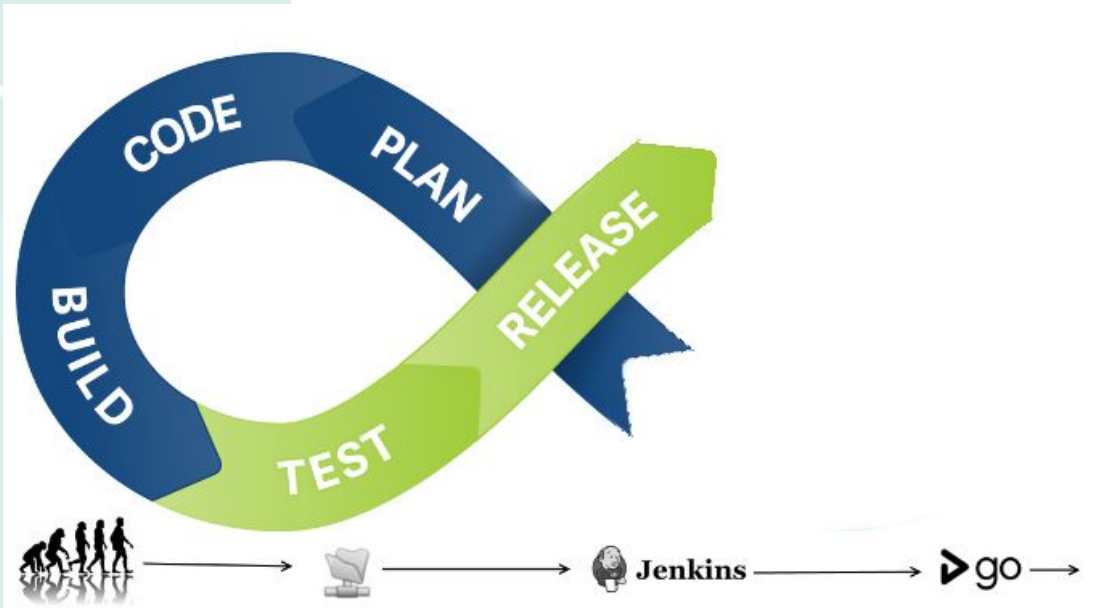
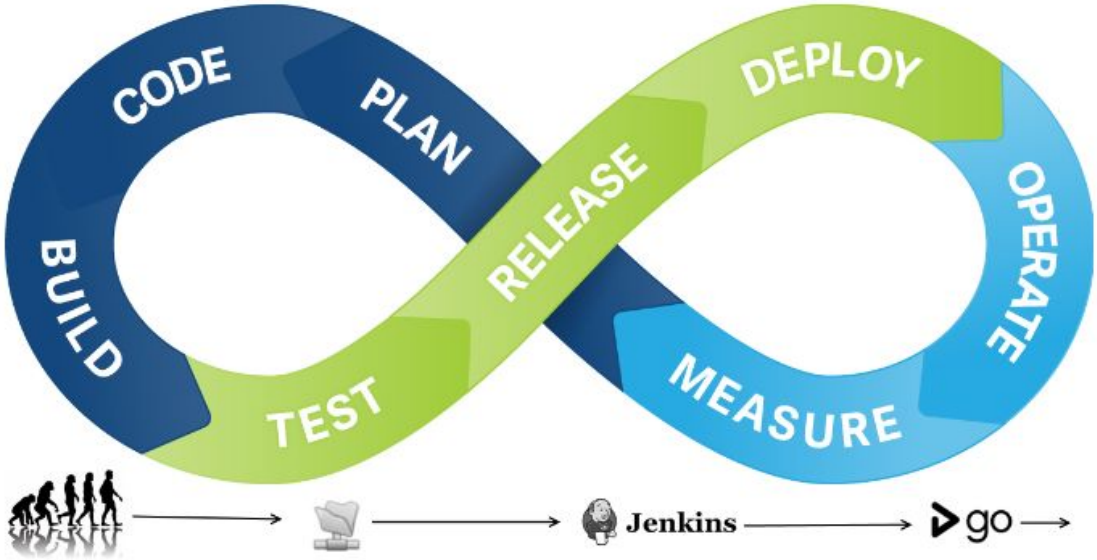
- Continuous integration



Why should we use Trunk Based Development?

- Continuous integration
- Continuous delivery



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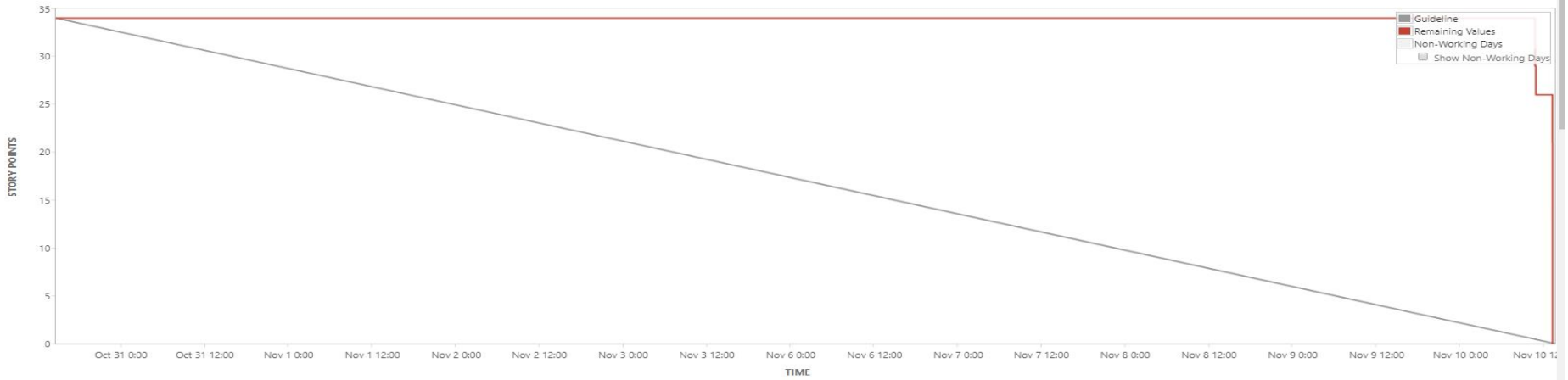
- Release branches - piece of cake
- Release when you want

Roll-out the first version of the Time Widget for Projects!

31.10.2017 - 10.11.2017



27.11.2017 - 08.12.2017

Teams in new app - create and view features delivered

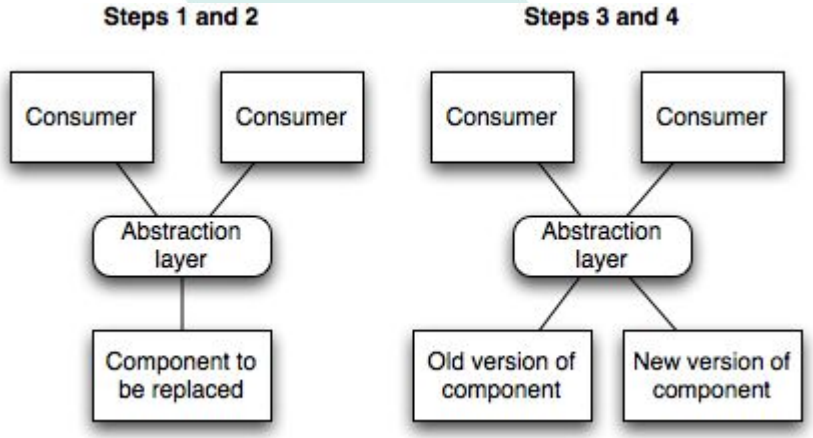
Why should we use Trunk Based Development?

- Continuous integration
- Continuous delivery
- No merge hell
- Release branches - piece of cake
- Release when you want
- Look at my burndown charts - my charts are amazing!

12.12.2017 - 27.12.2017

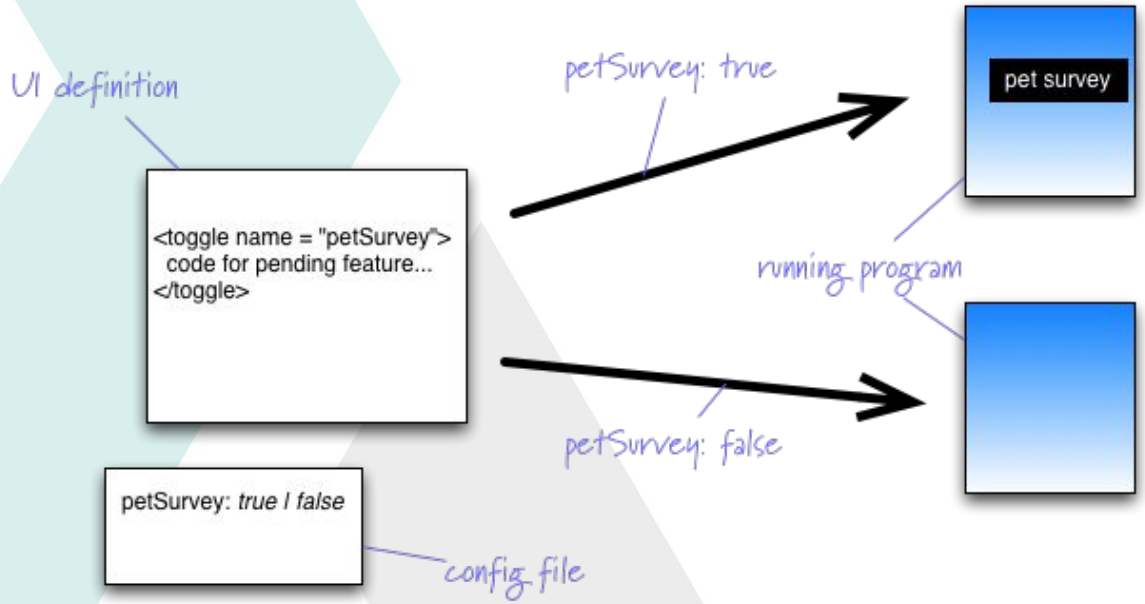
How to handle it?

- Branch by Abstraction



How to handle it?

- Branch by Abstraction
- Feature Toggles



Database migration

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- Only one SQL statement in migration

Database migration

- Changes must perform backward compatibility
- Only one SQL statement in migration
- Should be integrated into build process

Useful library for Python

Django-Waffle	https://waffle.readthedocs.io
Django-Feature-Flipper	https://github.com/mypebble/django-feature-flipper
Flask-FeatureFlags	https://github.com/trustrachel/Flask-FeatureFlags
Flagon	http://www.oss.io/p/ashcrow/flagon

Useful library for JavaScript

Javascript Feature Flags	https://github.com/jayf/javascript-feature-flags
Angular Feature Flags	https://github.com/michaeltaranto/angular-feature-flags
Ember-Feature-Flags	https://github.com/kategengler/ember-feature-flags
Node Feature Flags	https://www.npmjs.com/package/feature-toggles

Bibliography

- Trunk Based Development
- What is Trunk-Based Development?
- Enabling Trunk Based Development with Deployment Pipelines
- Branch By Abstraction
- Branch By Abstraction by Martin Fowler
- Feature Flags

Questions and Answers

```
➜  thanks git:(master) git merge origin/master
Auto-merging main.cpp
CONFLICT (zawartość): Merge conflict in main.cpp
Automatic merge failed; fix conflicts and then commit the result.
➜  thanks git:(master) ✗ git status
On branch master
You have unmerged paths.
  (fix conflicts and run "git commit")

Unmerged paths:
  (use "git add <file>..." to mark resolution)

        both modified:   main.cpp

no changes added to commit (use "git add" and/or "git commit -a")
➜  thanks git:(master) ✗ cat main.cpp
#include <iostream>

int main(int argc, char *argv[]) {
<<<<<<< HEAD
    std::cout << "Thank you" << std::endl;
=======
    std::cout << "Thanks" << std::endl;
>>>>>>> origin/master
    return 0;
}
➜  thanks git:(master) ✗
```