Continuous Delivery / Continuous Deployment

How to automate your Deliveries

Bernhard Keprt

24.02.2014

WILLHABEN.AT®

Bernhard Keprt
Software Developer

- Teamleader Software Development Job at willhaben.at

- Likes
    - Agile Development
    - Test Driven Development
    - Software Architecture
- Hates
    - Bugs
    - Refill the coffee machine

willhaben.at

- Austria’s largest public portal
  - > 765 Mil. page impressions per month
  - > 22,8 Mil. visits per month
  - > 4,6 Mil. unique clients per month
  - > 33,7% reach
  - > 2,3 Mil. online adverts

  Source: owea.at, January 2014

- Great Place To Work

Common Feature Lifecycle

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Development

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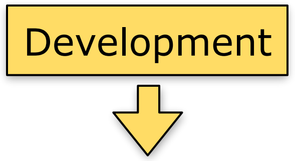

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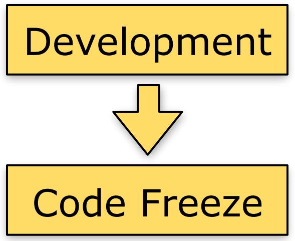

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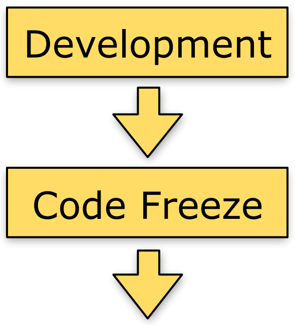

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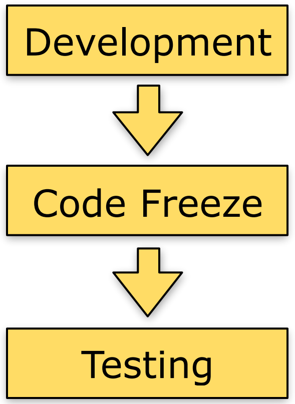

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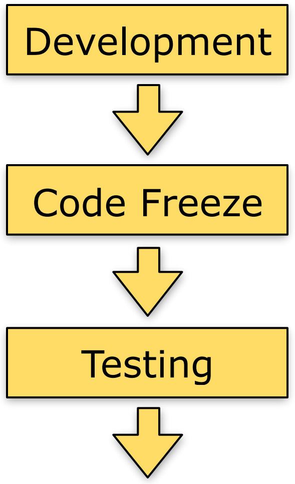

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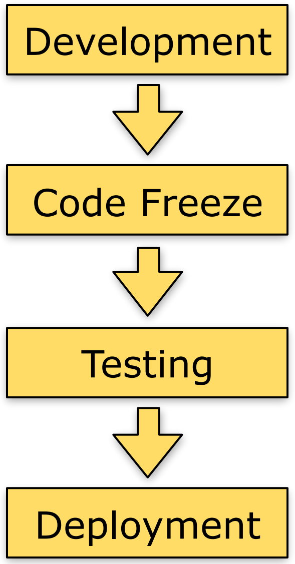

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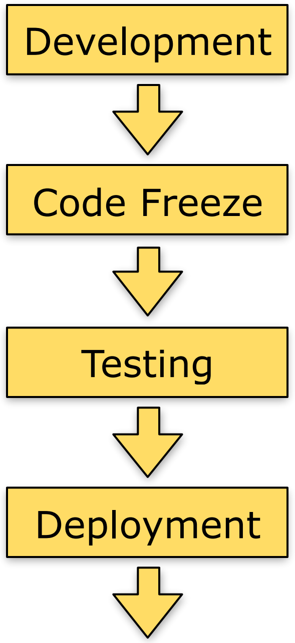

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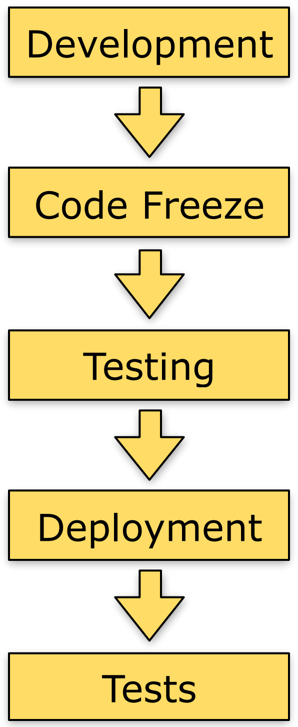

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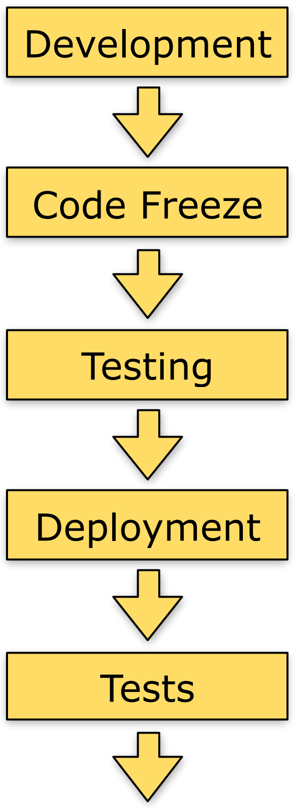

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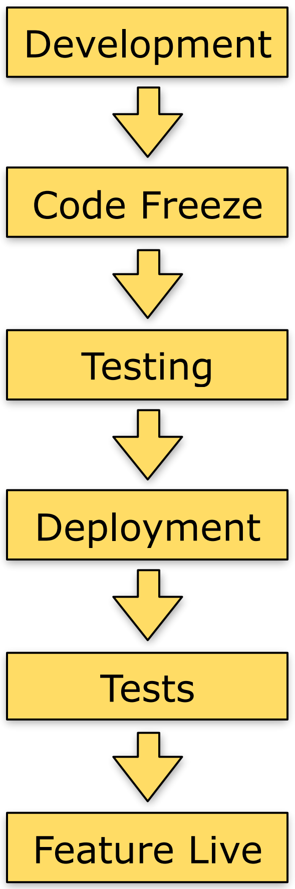

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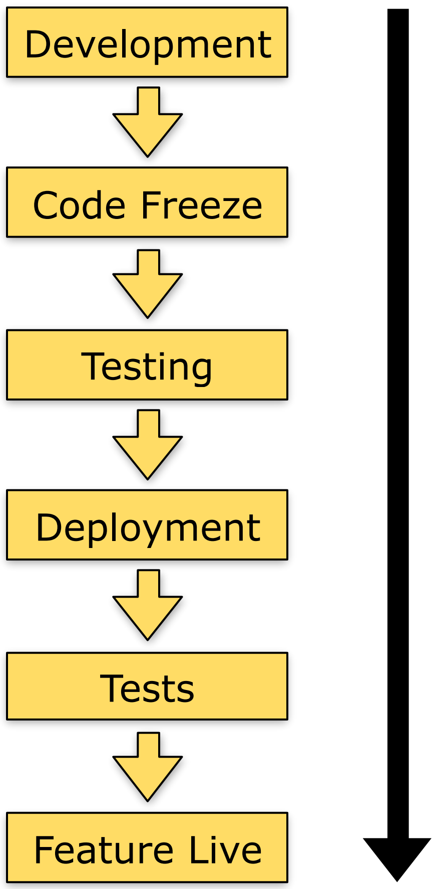

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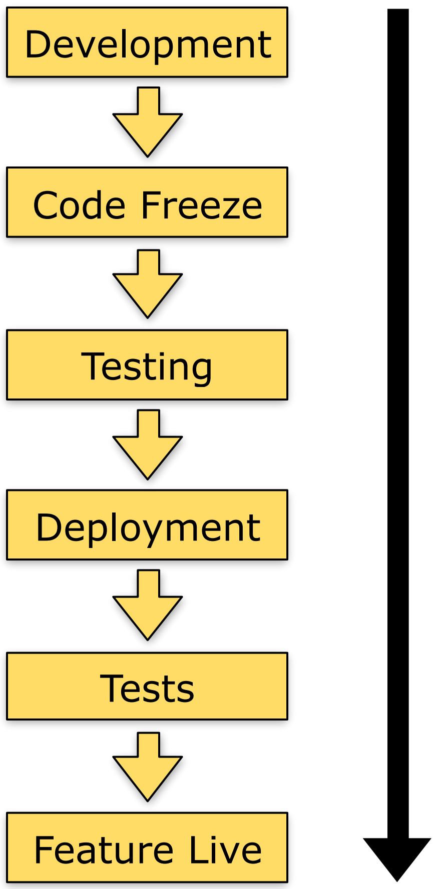

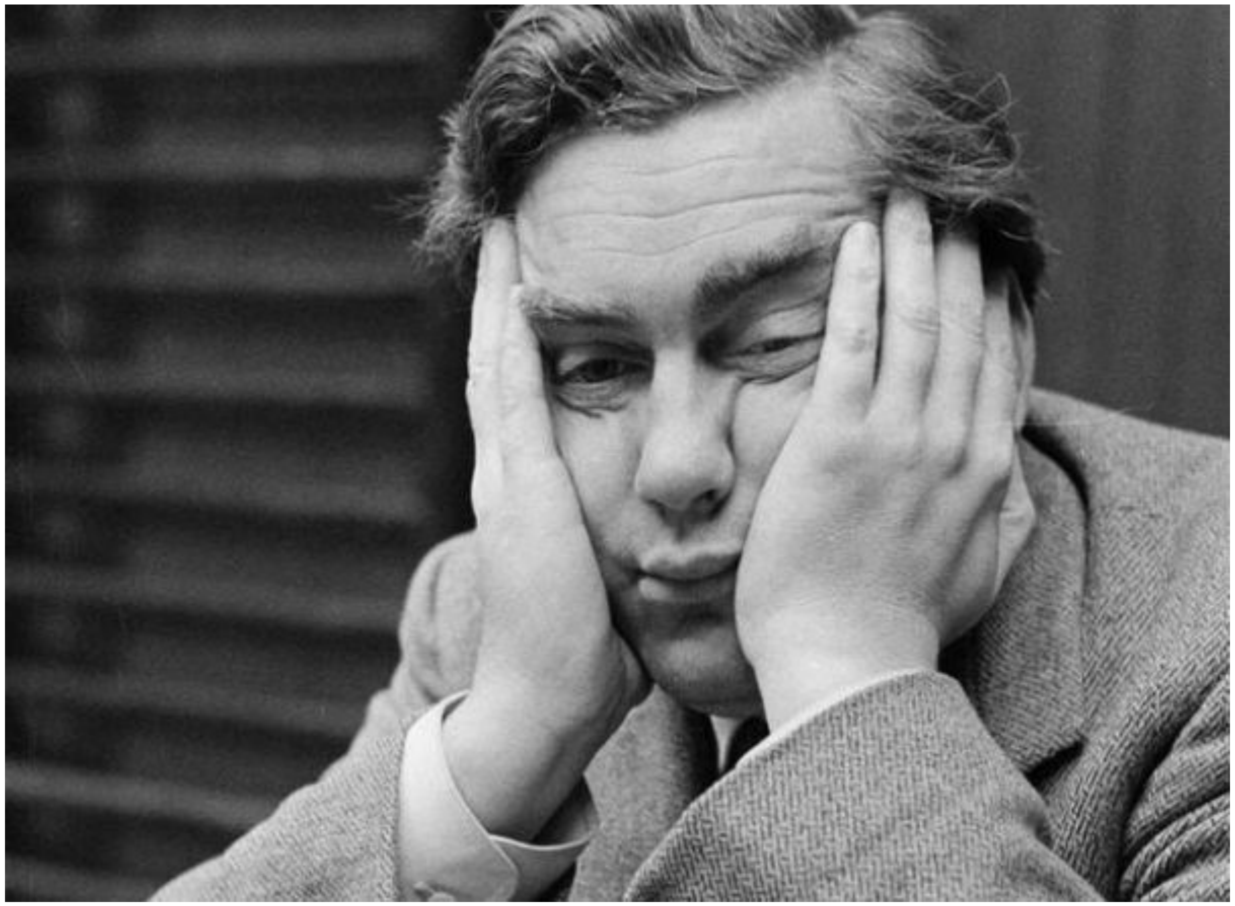

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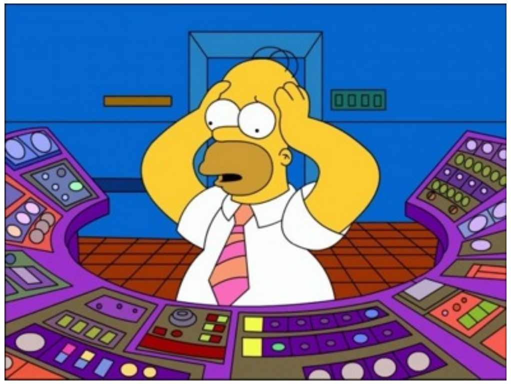

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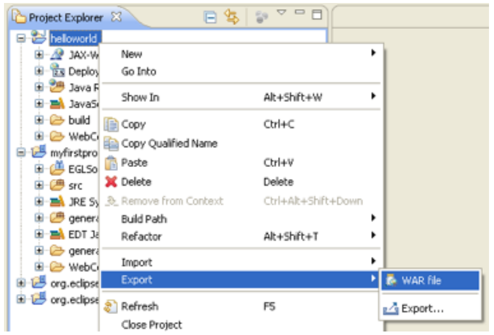

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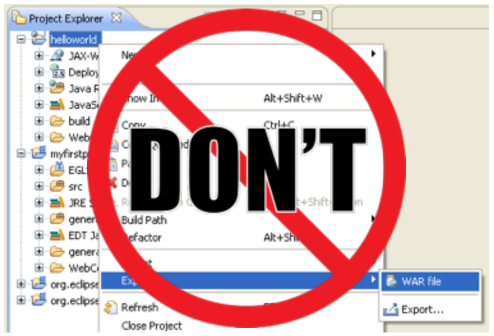

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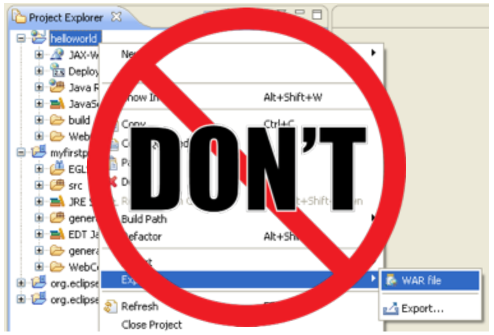

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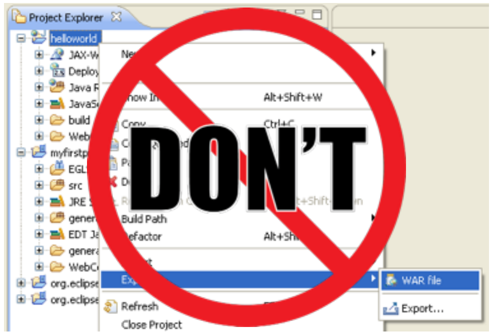

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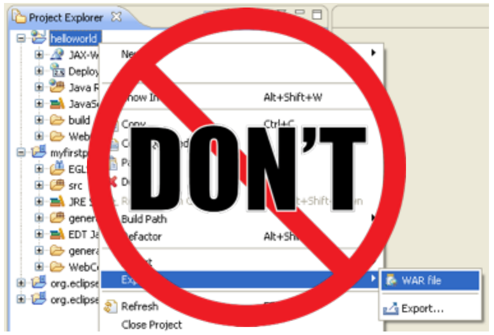

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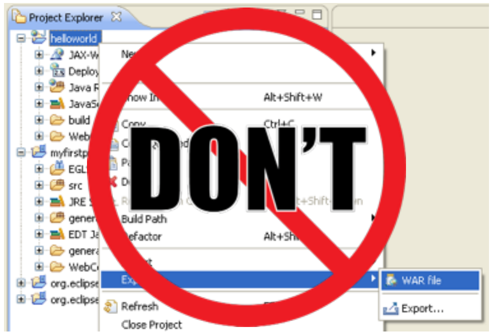

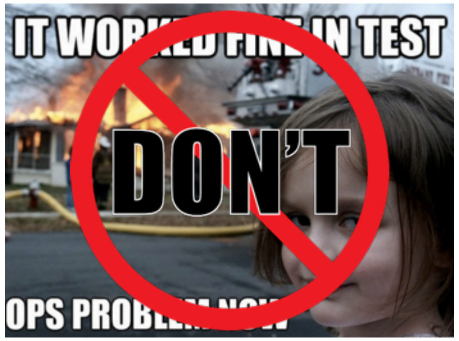

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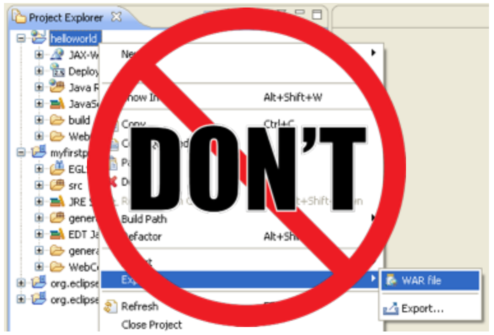

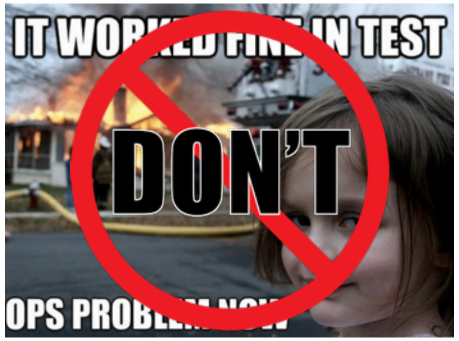

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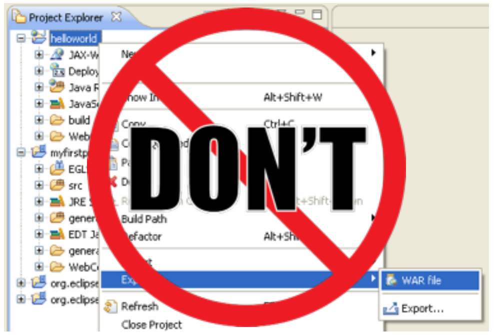

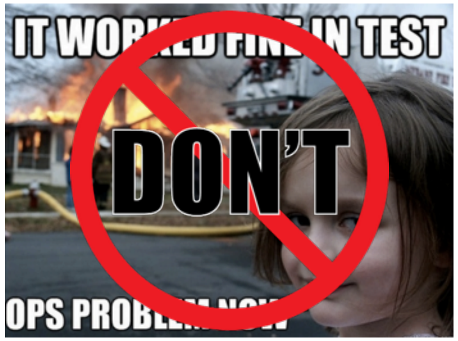

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Obstacles

- Technical
- Team
- Organization
- QA
- IT-OPs
- Hardware

Technical Obstacles

- Your software architecture is not ready
- Your start-up process is inadequate
- Your configuration is misplaced
- Your database / -connection is not useable for CD
- Your build-process is processed manually

Team Obstacles

- Your team is not using agile methods (waterfall)
- You don’t use sprints / SCRUM / Kanban
- Your team members don’t trust each other
- Someone in your team „owns“ code
- Your team is pointing finger at each other

Organizational Obstacles

- Team autonomy is a foreign word in your company
- Your company divides responsibilities rigorously
- Your organization misses courage
- New ideas are not welcome

QA Obstacles

- Your QA uses manual testing only
- Your QA don’t trust your testing environments

IT-Operations Obstacles

- Your IT-OPs want to rule the (server-)world
- OPs feel useless when implementing CD

Hardware Obstacles

- You don’t have the proper hardware
- You can not access the target hardware by scripts

Which roles are affected by CD?

- Product Owner
- Product Manager / Project Manager
- Scrum Master
- Developer
- QA
- IT-Operator
- Customer

- **What are the motivations for each role?**

Product Owner / Product Manager

- Time to market increased
- Short feedback loop for features
- Smaller features means more control
- Feature-Pipeline will not be blocked
- Planning becomes more feature oriented
- Smaller planning iterations
- Less specification at a time
    - => Specification on demand
- Immediate technical feedback
- Lower risk
- High PO satisfaction
- High customer satisfaction

Scrum Master

- Small sized, release-able features
- Higher sprint success rate
- Less time spent for planning / retro-meetings

Developer

- Code for Testing vs. Code for Production
  - Every Code is potentially deployed to production environment
- Test Driven Development
  - More important than ever
- Fast Feedback is necessary
  - from QA, PM
- Releasing features is routine

- **Fast feedback improves quality**

QA

- Testing is more focused
- Testing effort is reduced within a sprint
- High quality and even improving
- Test automation is a useful assistant
- More trust in software quality

IT-Operator

- Standardized methods for deployment
- No manual effort necessary for a release
- Focus on stabilizing deployment process
- Focus on monitoring

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- Configuration is part of a deployment!

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- There is no „step back", we just deploy forward

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