# Tipps and Tricks

Softwaretechnik II 2014/15
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Value-based Requirements Analysis

- Requirements are often analyzed in a value-neutral environment [Boehm, 2006]

- 80% of the value is expressed in 20% of the requirements (Pareto principle) [Koch, 1998]

- A value-oriented approach is more appropriate

- How to do that?

  - Estimate value of a requirement to the stakeholders
  - Estimate effort to implement a requirement

Value-based Requirements Analysis
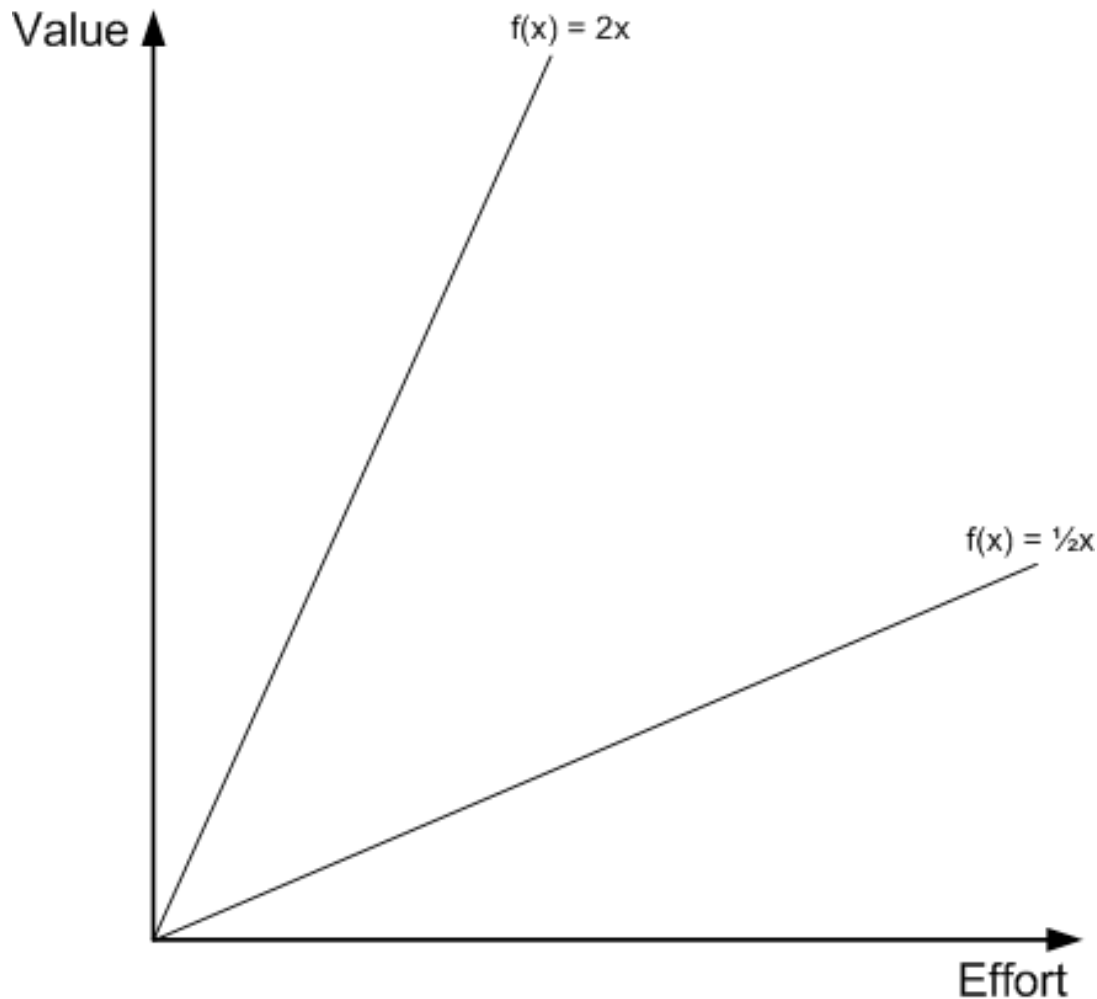
Implement: Above 2x
Skip: Below 1/2x
In-between: Review

Whole truth?
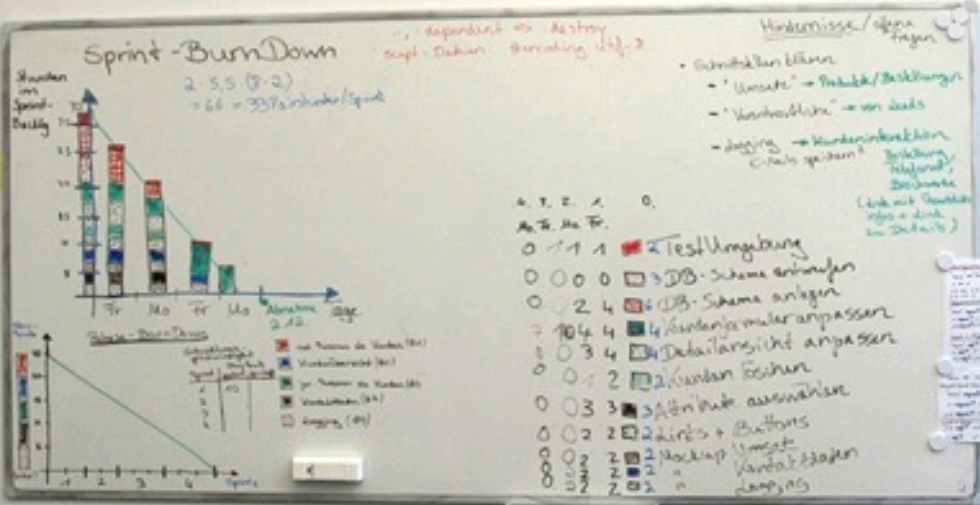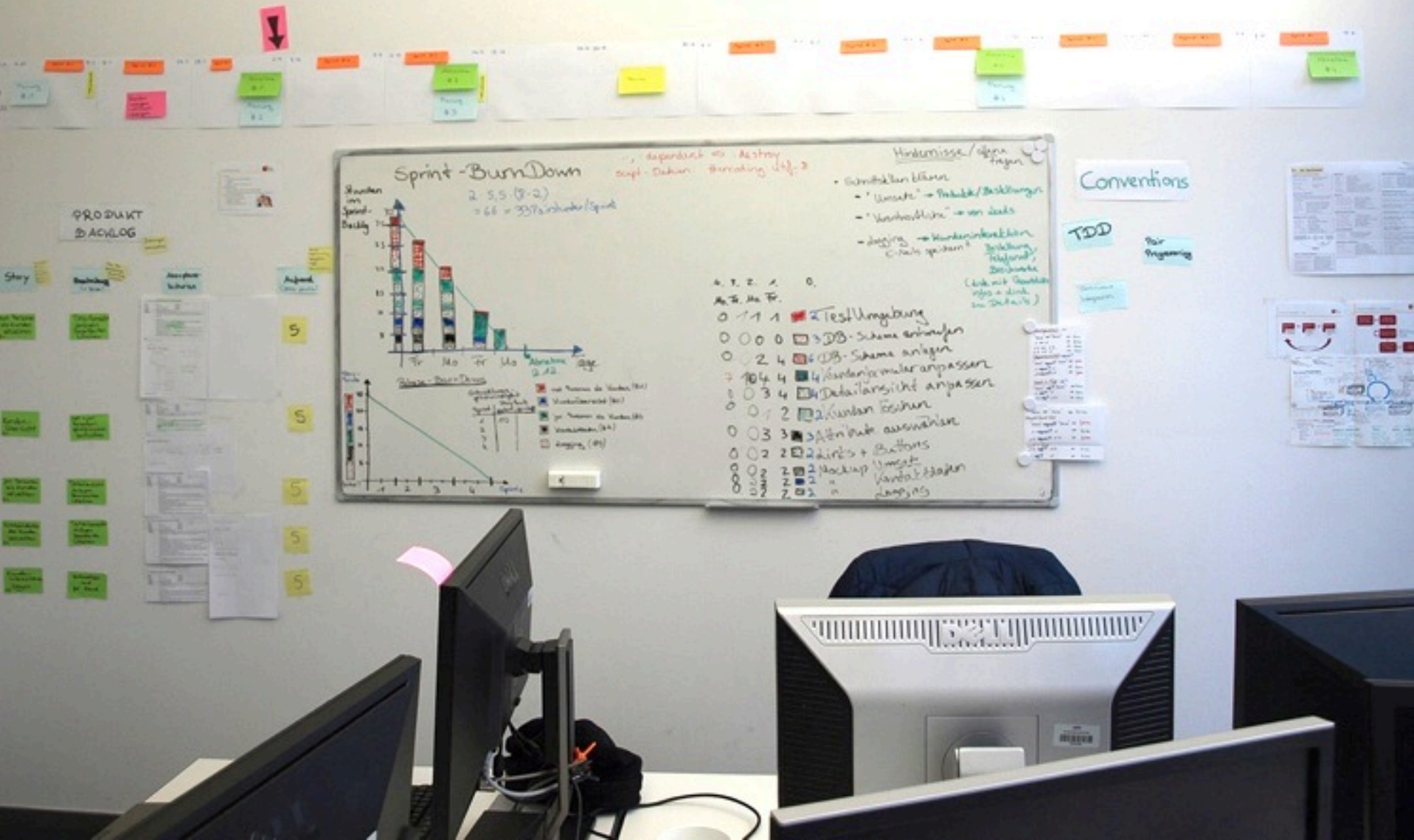Beware of
dependencies!

Organizing your Project

- Questions:
  - Which stories are part of Sprint#1?
  - Who is working on which tasks?
  - Which version is a good one that can be shown to the Customer?

- Tools that might help:
  - Put your tasks into the Github Tracker
  - Use milestones in the Ticket System
  - git tag –a v0.1 –m 'version after Sprint#1 without US #2'

Scrum Boards – Virtual vs. Real-Life

Velocity

- Who knows the velocity of their team?
  - Number of work units performed within a sprint
  - Varies from team to team and over time
  - Should not be used for team evaluation
- How can you make your velocity visible?
  - Sprint Burndown Charts

Project XYZ Iteration 1 Burn Down
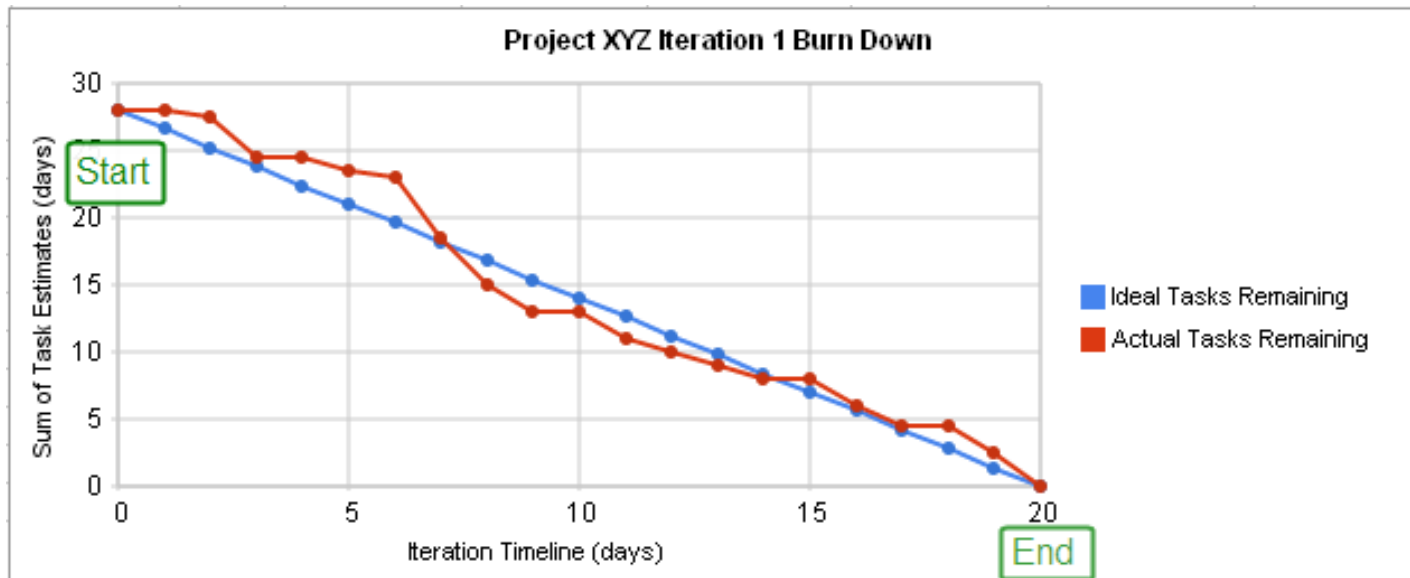
Git Tricks

- Wrong commit message? (**please, only local!**)

$> git commit --amend -m "new message"

- Forgot something?

$> git add <missing files>

$> git commit --amend

- Undoing the amending

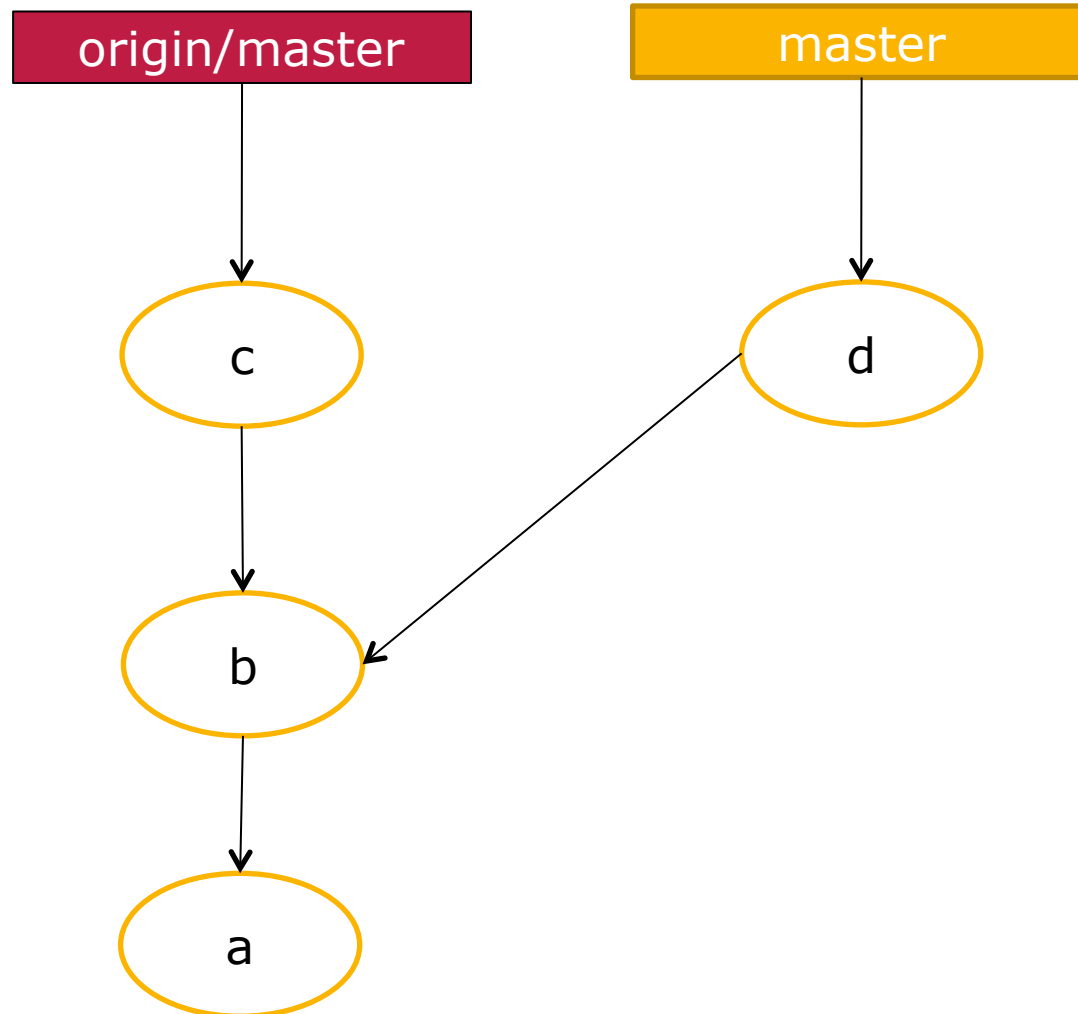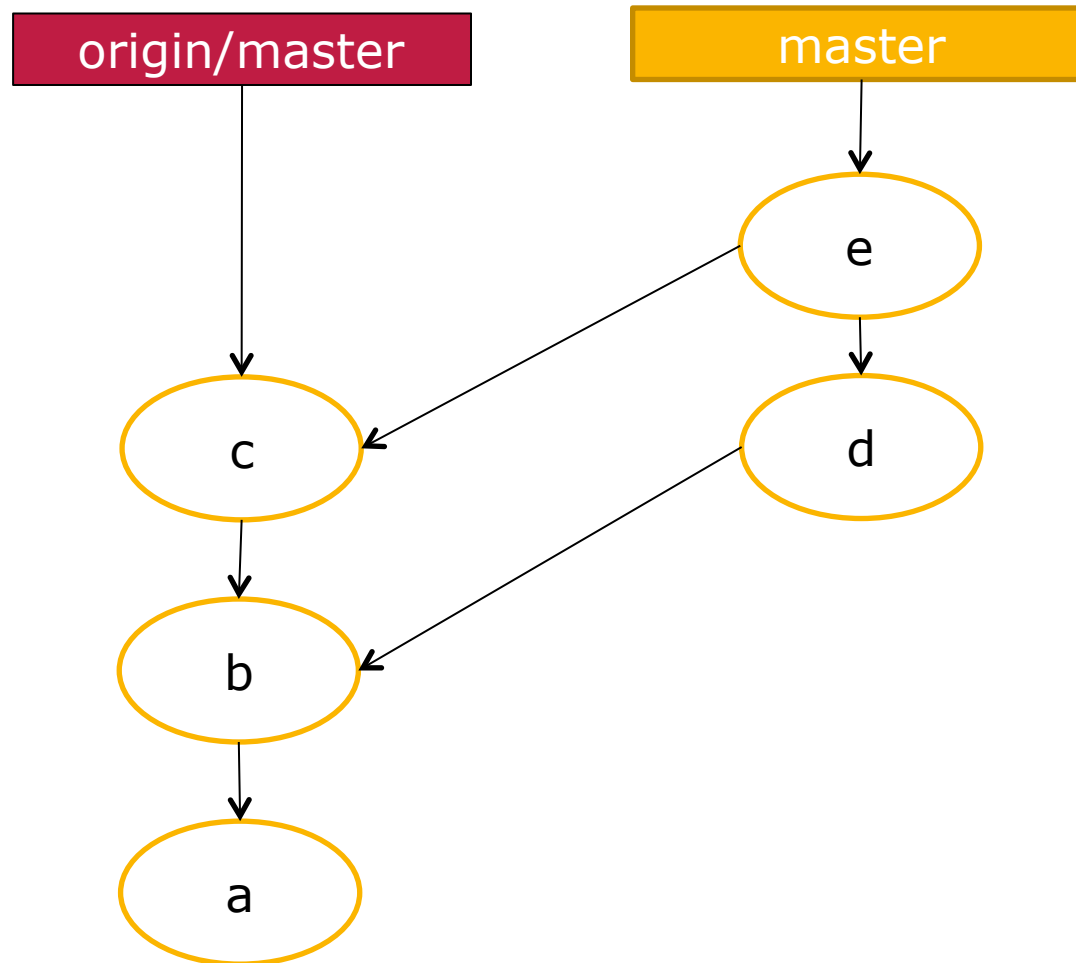$> git reset –soft HEAD@{1}

$> git commit –C HEAD@{1}

- What have I done?
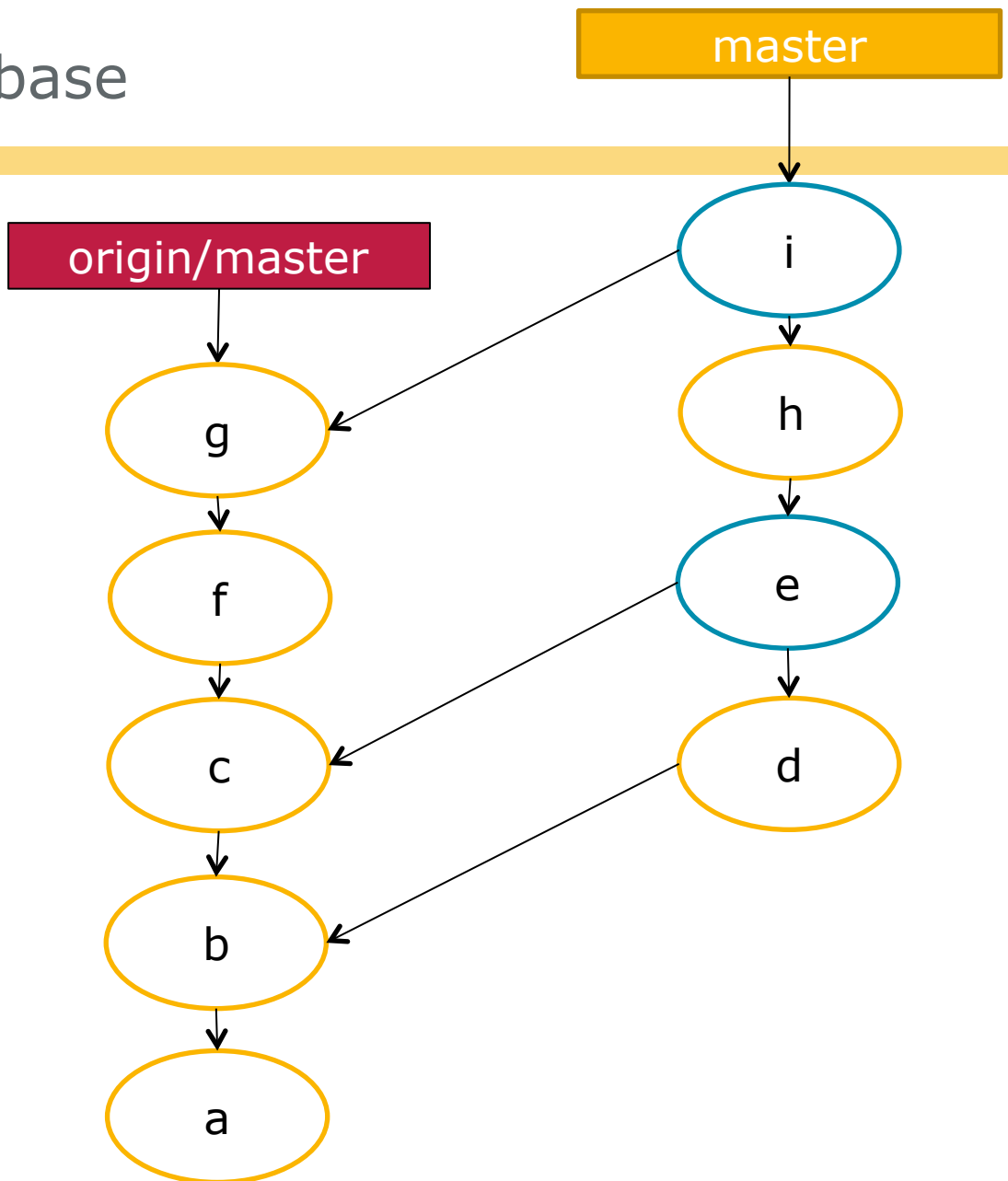
$> git reflog

Git Rebase

Git Rebase

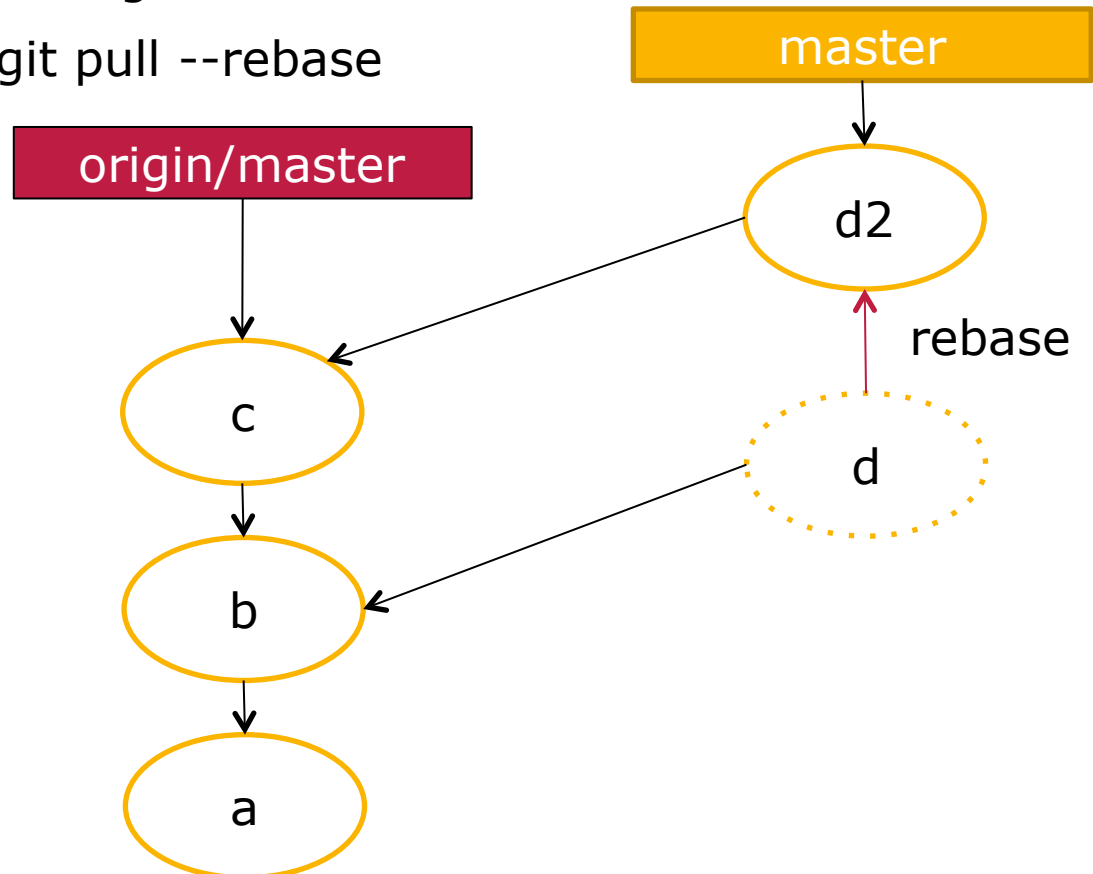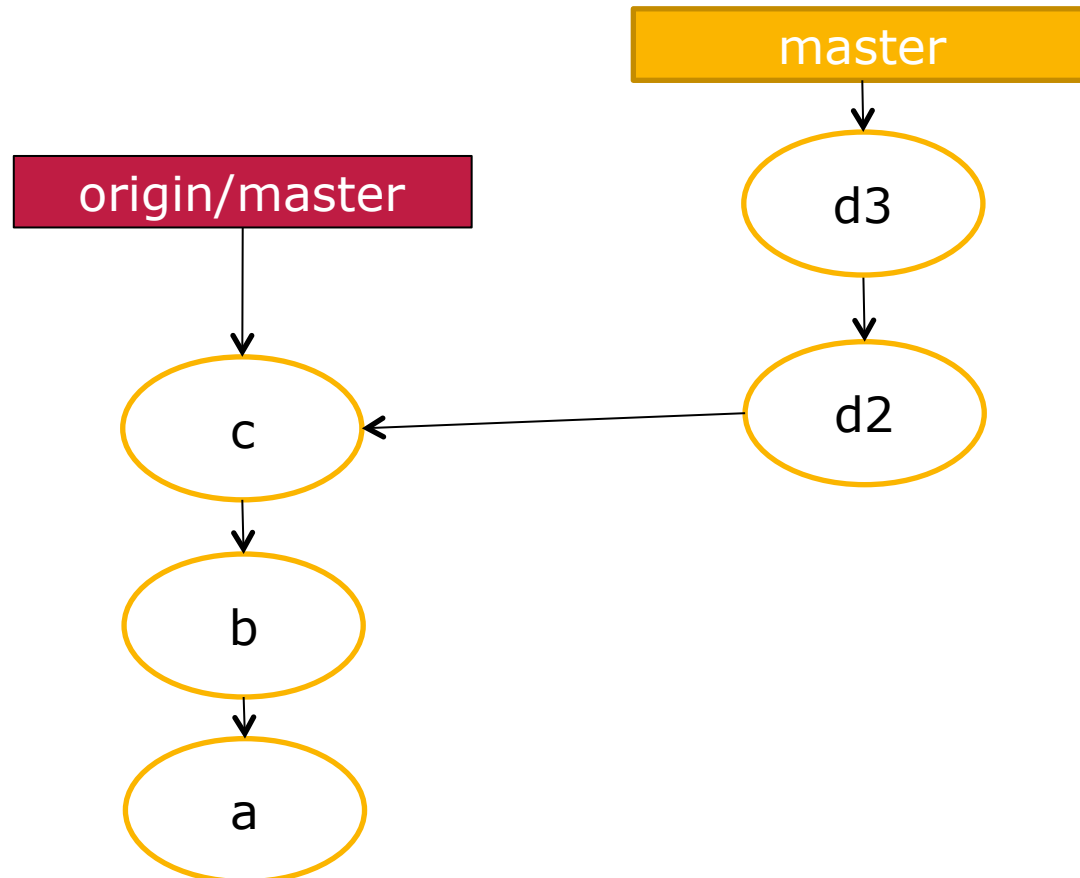# Git Rebase

Git Rebase

- Problem: History is becoming cluttered with merge commits
- Solution: git rebase <branch>
- Tip: git pull --rebase

Git Rebase

- **<u>Don't rebase branches that other people have created commits upon</u>** -> extra work guaranteed

git cherry-pick

- Problem: How to get changes from other commits without having to merge entire branches
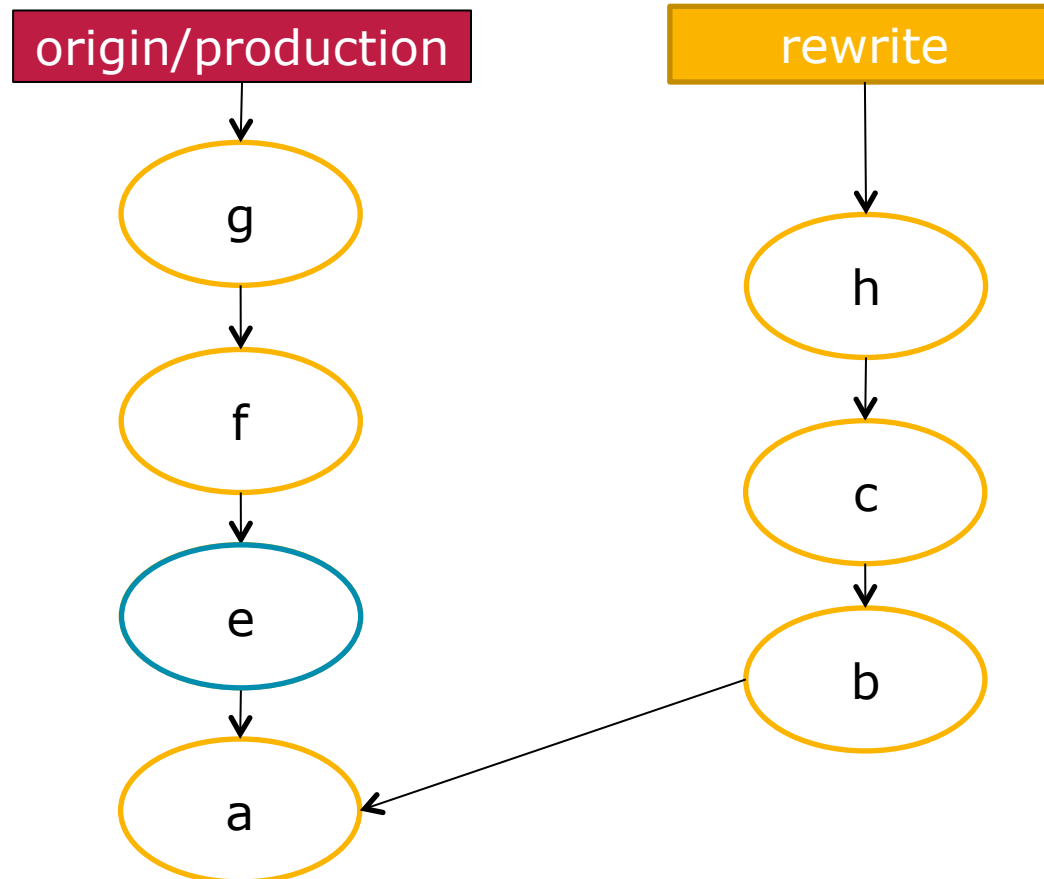
git cherry-pick

```
$> git log

commit 2fbe69ff6cf26d8f152a8b9e538fbcbe581482ce
Author: Thomas Kowark <thomas.kowark@googlemail.com>
Date:    Mon Oct 1 17:13:34 2012 +0200

    fixed plugins

commit a9f17fab655ad6ef60a168d0c77915209e1f76f5
Author: Thomas Kowark <thomas.kowark@googlemail.com>
Date:    Thu Sep 20 15:36:28 2012 +0200

    fixed nasty bugs in name obfuscation
```

```
$> git cherry-pick 2fbe69f
```

git cherry-pick
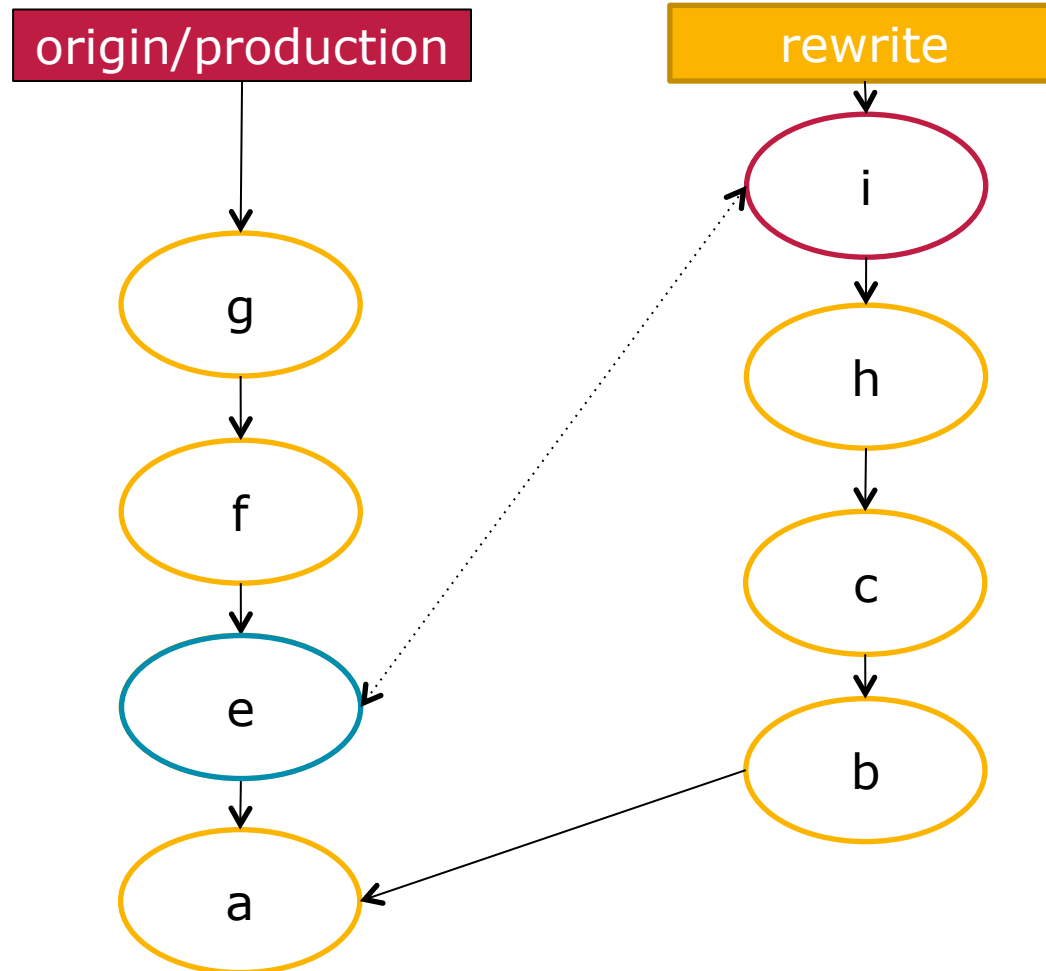
Dealing with Dependencies
Ambassadors

```
┌──────────────────┐              ┌──────────────────┐
│     Team A       │              │     Team B       │
│  ┌────────────┐  │              │  ┌────────────┐  │
│  │            │  │              │  │            │  │
│  ├────────────┤──┼──────────────┼──┤────────────┤  │
│  │            │  │              │  │            │  │
│  └────────────┘  │              │  └────────────┘  │
└──────────────────┘              └──────────────────┘
```

- Mutual Exchange of team members
  - Improves efficiency of communications
  - Allows deeper understanding of problems
  - Prevents coordination problems early in the process
- Ambassadors should be fully integrated team members
- Especially useful for API development, Design, etc.

[Pichler, Scrum – Agiles Projektmanagement erfolgreich einsetzen, 2007]

Estimating Large Backlogs (1/2)

- Bucket Estimation (Jukka Lindström) [Scrumcenter, 2009]
  - □ Create physical buckets based on examples (2-3 per bucket)
  - □ Assign items to buckets one by one through
    - ◇ Comparing & Discussing
    - ◇ Planning Poker
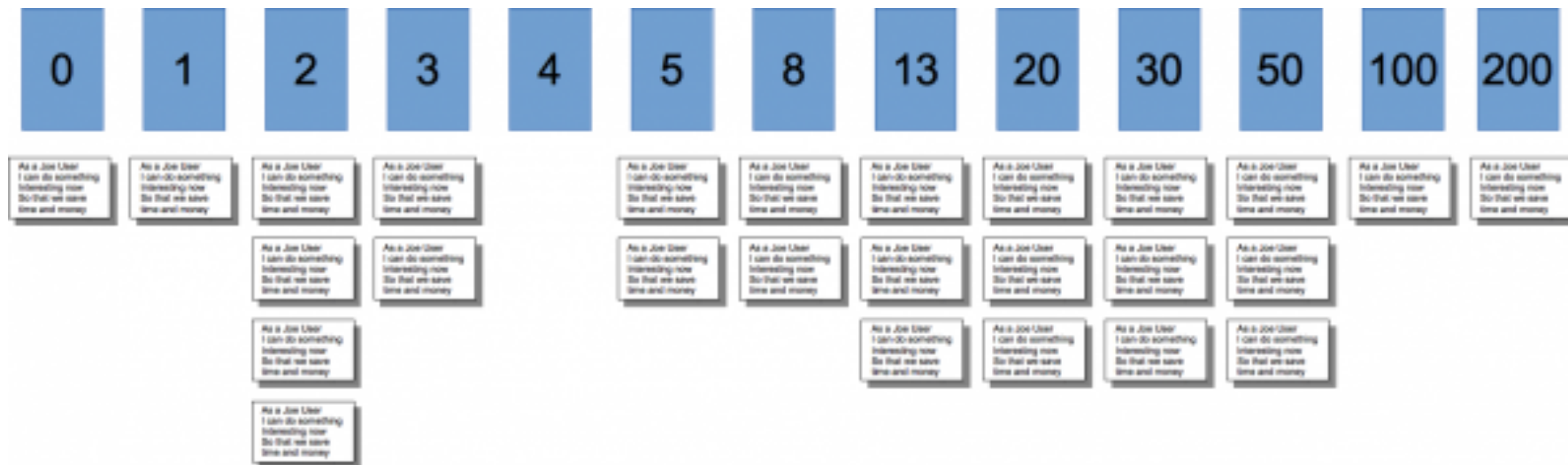
Estimating Large Backlogs (2/2)

- Affinity Estimation (Lowell Lindstrom) [Scrumcenter, 2009]
    - Read each story to the entire team
    - Arrange stories horizontally based on size (no talking!)
    - Place Fibonacci numbers above the list
    - Move each story to the preferred number
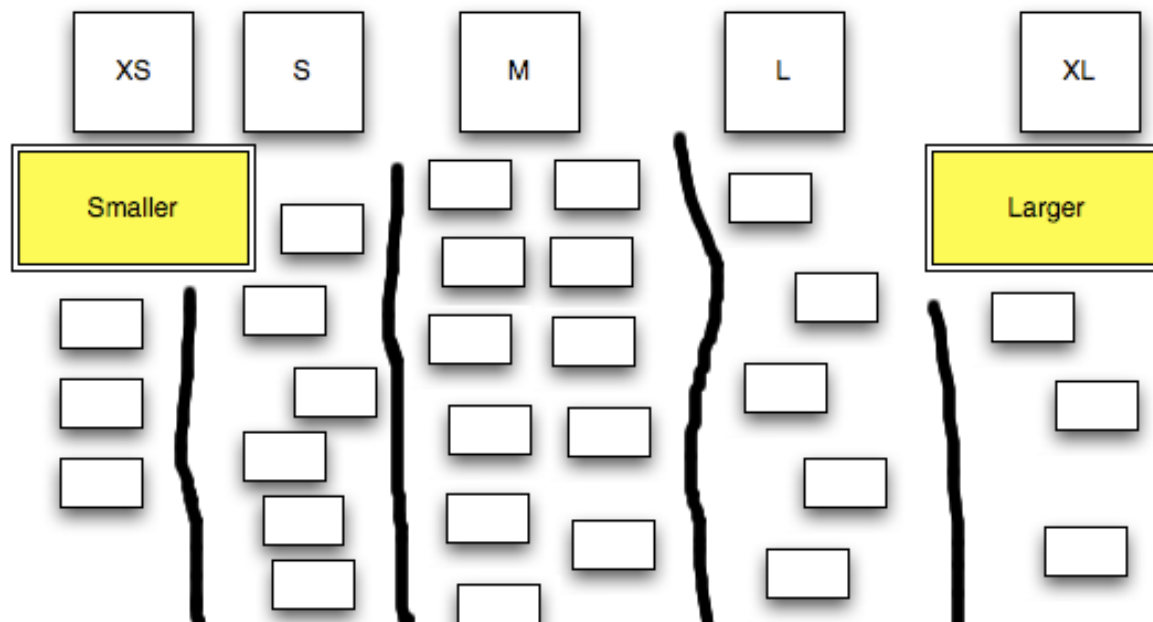
Tooling suggestions

- GIT
  - □ GitX, TortoiseGit, SourceTree, Tower, SmartGit
- Editors/IDEs
  - □ TextMate, Emacs, Vim, Aptana, Sublime
- Github Integration?
  - □ Github client, Github Command Line
- Others?

Outlook

- Dec 12
  - □ Present your intermediate results
  - □ We'll invite your real customers