

CMMI: Project Monitoring and Control



TECHNISCHE
UNIVERSITÄT
DARMSTADT



The WHAT: Project Monitoring and Control

SG 1: Monitor the Project Against the Plan

SG 2: Manage Corrective Action to Closure

The HOW (part 1): industrial practices

The HOW (part 2): real-life examples



[Dev10]

SG 1: Monitor the Project Against the Plan

SP 1.1: Monitor Project Planning Parameters



TECHNISCHE
UNIVERSITÄT
DARMSTADT



The WHAT: Project Monitoring and Control

The HOW (part 1): industrial practices

- Extreme Programming

- SCRUM

- Rational Unified Process

The HOW (part 2): real-life examples

The HOW (part 1): industrial practices



TECHNISCHE
UNIVERSITÄT
DARMSTADT

[AB06]

The HOW (part 1): industrial practices

Extreme Programming



TECHNISCHE
UNIVERSITÄT
DARMSTADT

The HOW (part 1): industrial practices

SCRUM - what it is



TECHNISCHE
UNIVERSITÄT
DARMSTADT

Overview

- ▶ **agile** software-engineering process
- ▶ **iterative**: thinking in *sprints*
- ▶ **slim**: 3 *roles*, 4 *artifacts*, small set of *rules*
- ▶ **communicative**: daily meetings, planning, reviews (but less paperwork)

The HOW (part 1): industrial practices

SCRUM - what it is



TECHNISCHE
UNIVERSITÄT
DARMSTADT

Overview

- ▶ **agile** software-engineering process
- ▶ **iterative**: thinking in *sprints*
- ▶ **slim**: 3 *roles*, 4 *artifacts*, small set of *rules*
- ▶ **communicative**: daily meetings, planning, reviews (but less paperwork)

Differences to Extreme Programming

- ▶ **iteration length**: month (SCRUM) vs. 1-2 weeks (XP)
- ▶ **change adaption**: not in current sprint (SCRUM) vs. always (XP)
- ▶ **work order**: team chooses (SCRUM) vs. customer chooses (XP)
- ▶ **engineering practices**: not given (SCRUM) vs. given (XP)

The HOW (part 1): industrial practices

SCRUM - how it supports Monitoring/Control



TECHNISCHE
UNIVERSITÄT
DARMSTADT

Regular meetings

- ▶ **Sprint planning meeting** (part 1: whole team):
 - ▶ clean product backlog
 - ▶ prioritize entries
 - ▶ choose entries for sprint
- ▶ **Sprint planning meeting** (part 2: developers):
 - ▶ entries to 1-day tasks (\Rightarrow sprint backlog)
 - ▶ sprint-goal from entries
- ▶ **Sprint Review:**
 - ▶ present product to product owner
 - ▶ check sprint-goal
 - ▶ give feedback for current sprint
 - ▶ update product backlog

The HOW (part 1): industrial practices

Rational Unified Process



TECHNISCHE
UNIVERSITÄT
DARMSTADT



The WHAT: Project Monitoring and Control

The HOW (part 1): industrial practices

The HOW (part 2): real-life examples
at Hochschulrechenzentrum, TU Darmstadt
at dimetis GmbH
at BASF IT-Services

The HOW (part 2): real-life examples

at Hochschulrechenzentrum, TU Darmstadt



TECHNISCHE
UNIVERSITÄT
DARMSTADT

The HOW (part 2): real-life examples

at dimetis GmbH



TECHNISCHE
UNIVERSITÄT
DARMSTADT

The HOW (part 2): real-life examples

at BASF IT-Services



TECHNISCHE
UNIVERSITÄT
DARMSTADT



Julio Ariel Hurtado Alegria and M. Cecilia Bastarrica.
Implementing cmmi using a combination of agile methods.
CLEI Electron. J., 9(1), 2006.



Cmmi Development.
Cmmi® for development, version 1.3 cmmi-dev, v1.3.
Engineering, (November):482, 2010.