

# agile development



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# this is not the truth

- ▶ many different agile workflows exists
- ▶ we do none of them (at least not on purpose)

## the waterfall model

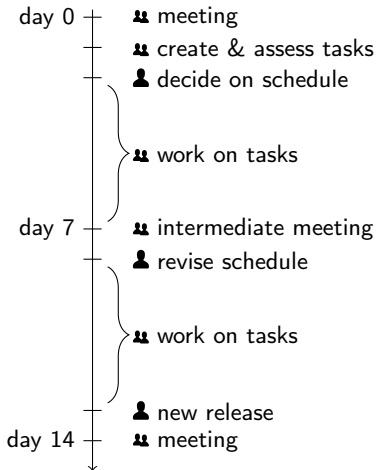
- ▶ first presented in 1956, see *Herbert Benington, "Production of Large Computer Programs"*
- ▶ strictly top-down (specification → code → evaluation)
- ▶ author knew it does not work well:
  - ▶ specifications change
  - ▶ specifications incorporate assumptions that need to be validated
  - ▶ specifications are ambiguous

# agile development

- ▶ frequent releases that are shipped to the customer
- ▶ customer gives frequent feedback
- ▶ after every release:
  - ▶ incorporate user feedback
  - ▶ remove obsolete tasks
  - ▶ add new tasks
  - ▶ review remaining tasks
  - ▶ reprioritize remaining tasks
  - ▶ review current progress
  - ▶ plan next release
- ▶ always have a working prototype
- ▶ make the prototype converge towards that the user wants
- ▶ some buzzwords: dad, lean sd, rad, scrum, tdd, xp

## our version of agile

- ▶ 👤 teams of 4-5 students
- ▶ 👤 one team leader (rotating)
- ▶ sprints of two weeks

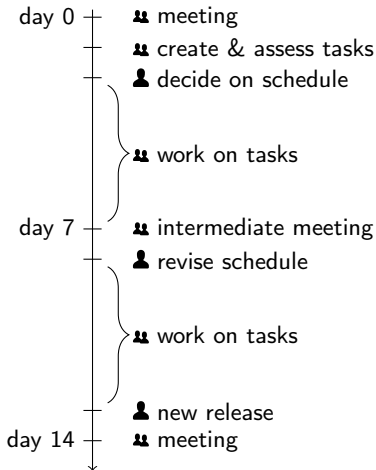


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### 👤 meeting (mandatory)

- ▶ review of past sprint
- ▶ new assignments
- ▶ questions

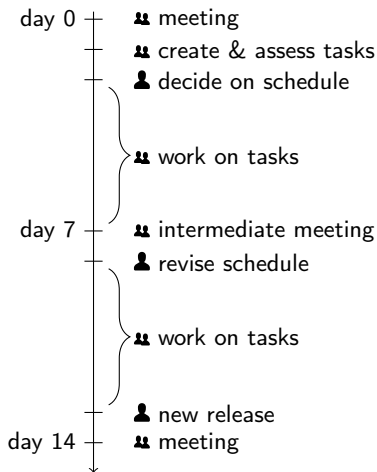


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**👤 create & assess tasks**

- ▶ analyse assignments
- ▶ decompose assignments to tasks
- ▶ estimate duration of tasks
- ▶ create ticket for every task
- ▶ estimate importance of tickets
- ▶ short brainstorming for every tickets

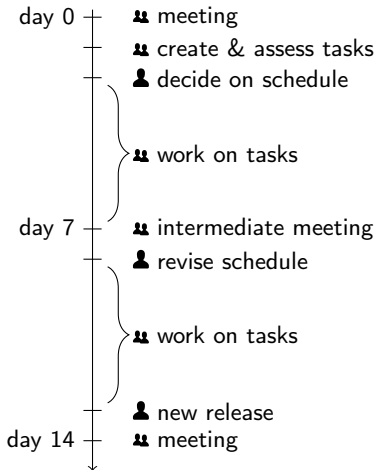


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### 👤 decide on schedule

- ▶ review ticket backlog
- ▶ select tickets for this sprint
- ▶ assign tickets to team members



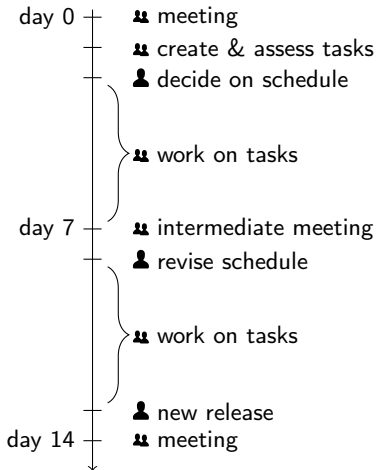


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**👤 intermediate meeting**

- ▶ meet as team (possibly with us)
- ▶ review current status
- ▶ discuss current problems

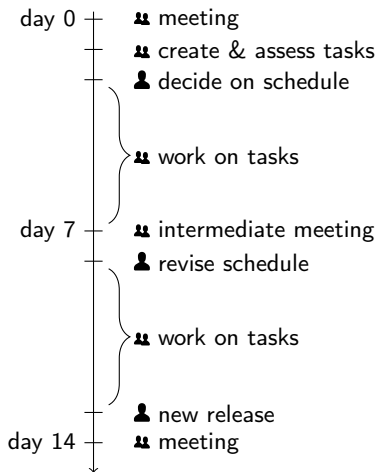


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**👤 revise schedule**

- ▶ review ticket backlog
- ▶ change ticket selection
- ▶ change ticket assignment

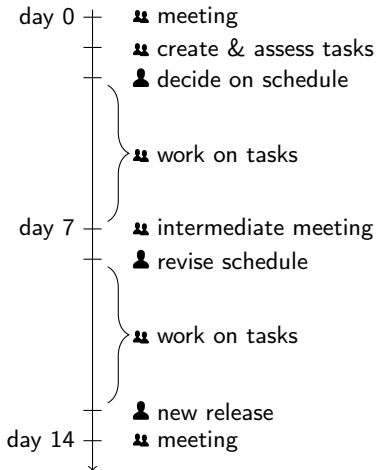


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### 👤 new release

- ▶ make team close tickets
- ▶ make sure finished work is merged
- ▶ publish a new release

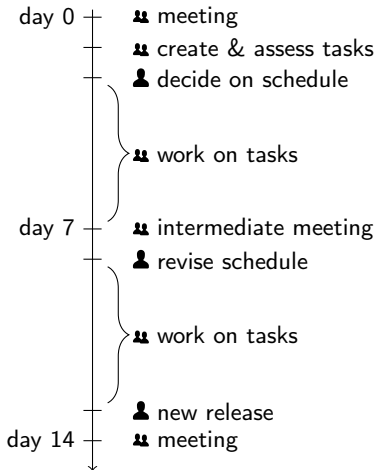


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## tool support

- ▶ gitlab at `git.rwth-aachen.de`
- ▶ access with your TIM account
- ▶ you must use
  - ▶ issues (*tickets*)
  - ▶ milestones (*Sprints*)
- ▶ you can use
  - ▶ CI for unit tests / benchmarks
  - ▶ interface for merging
  - ▶ wiki
  - ▶ ... whatever is there