

# Team and Tools

---

Dirk Riehle, Univ. Erlangen

**AMOS B01**

Licensed under [CC BY 4.0 International](https://creativecommons.org/licenses/by/4.0/)

# Agenda

---

## 1. Team formation

- a. Student roles
- b. Team contract
- c. Team logo and T-shirt

## 2. Project tools

- a. Planning document
- b. Feature board
- c. Code repository
- d. Imp-squared backlog

## 3. Team coordination

- a. Stand-up emails
- b. Happiness index

# **1. Student Roles**

---

# The AMOS Scrum Team [1]



# Scrum Roles

---

## **Product owner**

- Holds overall responsibility that the software is valuable (to customers)

## **Software developer**

- Holds overall responsibility for design and implementation of the software

## **Scrum Master**

- Holds overall responsibility for continuous process improvement

# Additional Roles

---

## Release manager

- Holds overall responsibility that a demo is ready for review

# There is no Scrum Project Manager

---

Scrum teams are self-organizing

# First Industry Partner Meeting

---

You should have a first meeting with your industry partner as soon as possible

- Team members in general participate to learn about project
- Product owners participate to gather requirements
- Software developers participate to ask technical questions

After the first team meeting you should still try to regularly meet the industry partner

- As many team members should participate as is sensible and possible



## **2. Team Contract**

---

# Team Contract

---

A team contract is

- A contract between team members on how to conduct the project

Its main components are

- Goals and rewards
- Norms and sanctions

# Goals and Rewards

Goals are what the team hopes to achieve; there are several categories:

- Learning objectives, for example,
  - To ensure that all team members understand the course material
- Interpersonal relationship objectives, for example,
  - To foster an atmosphere of mutual respect and learning
- Functional objectives, for example,
  - To have efficient team meetings

Rewards are how you celebrate intermediate or final achievements

- Let's have cake!

# Norms and Sanctions

Norms are rules for expected behavior; there are several categories:

- Meeting norms, for example,
  - Is being late to a team meeting acceptable?
- Working norms, for example,
  - How will we make decisions?
- Coordination norms, for example,
  - Who keeps meetings on track?
- Communication norms, for example,
  - How to communicate outside of team meetings?

Sanctions are what to do if norms are violated

- Sing a song to the team or do ten push-ups

# One-Time Deliverable: Team Contract

---

Please discuss and agree on a team contract (in planning document)

Try to finish this during the first team meeting

### **3. Team Logo and T-shirt**

---

# Team Logo

A team logo is just that, a logo that

- Represents your team and project

The logo will be used in different places

- On your team T-shirt
- In the GitHub documentation
- In your final demo and report
- Wherever you see fit



# Team Logo Design

---

Get started with collaboratively designing the team logo during the team meeting

Continue on your self-chosen communication channels

Final execution (graphics) may be delegated to one person



# Team T-shirt

Create a team T-shirt design using your logo

- You can add your logo and one text

Submit your team T-shirt preferences

- Color, size, form



# One-Time Deliverable: Team Logo / Team T-Shirt

---

Please create the team logo and T-shirt design and submit your preferences

## **4. Planning Document**

---

# The Planning Document

---

The planning document serves to

- Document basic project information
- Collect all materials that don't go easily into the repository
- Coordinate work on this less frequent information

See also the [Flowers example planning document](#)

# Table of Contents

#	Artifact name (tab in spreadsheet)	Artifact purpose
1	Project data	Provides basic project data
2	Project team	Shows project team
3	Role assignments	Tracks role assignment
4	Team contract	Shows team contract
5	Product goal	Provides product vision and project mission
6	Product glossary	Provides domain terminology of project
7	Sprint goals	Lists goals of respective sprints
8	Mid-project release tracking	Tracks mid-project release sprints
9	Final project release tracking	Plans and tracks final project release sprints
10	Definition of done	Provides decision criteria for “done”
11	Documentation	Provide links to documentation of product
12	Bill of materials	Lists all third-party components
13	Planning poker	Provides simple tool for planning poker

# 1. Project Data

---

Please fill in the data as needed and as you see fit

Please do not protect the online team meeting

## 2. Project Team

---

Please provide your name and GitHub id

Please **use only one GitHub id** during the semester

### 3. Role Assignments

---

Please fill in the roles people play in a given week (sprint)

Please finish this during the first team meeting



## 4. GitHub IDs

---

Almost all work takes place in the project's GitHub repository

Please create and provide your GitHub id as soon as possible

# Project Deliverables

---

Please provide all deliverables (homework) in the

- **Deliverables** folder of the project's GitHub code repository

Details can be found in the homework instructions

# Regular Deliverable: Planning Document

---

Please initialize your planning document and keep it up-to-date

# Terms (The GitHub Terminology Mess)

Agile / Scrum	AMOS	GitHub	Other
Project	<b>Project</b>	Repository	–
Backlogs [1]	<b>Backlogs</b>	Columns in project [2]	–
Kanban board [3]	<b>Feature board</b>	Project	–
Backlog item [4]	<b>Backlog item</b>	Item, also issue [5]	Work item, ticket
–	<b>Code repository</b>	Code	–

[1] Backlogs can be of different types: Product backlog, sprint backlog

[2] The columns of a GitHub project represent the different backlogs + states of work

[3] Scrum proper does not know kanban boards, but agile in general acknowledges them

[4] Backlog items can be of different types: Feature [6], refactoring, bug fix

[5] Terms vary throughout the GitHub user interface

[6] Features should be presented using the user story format

## **5. Feature Board**

---

# Feature Board (GitHub Project)

---

A feature board is a slotting system used to

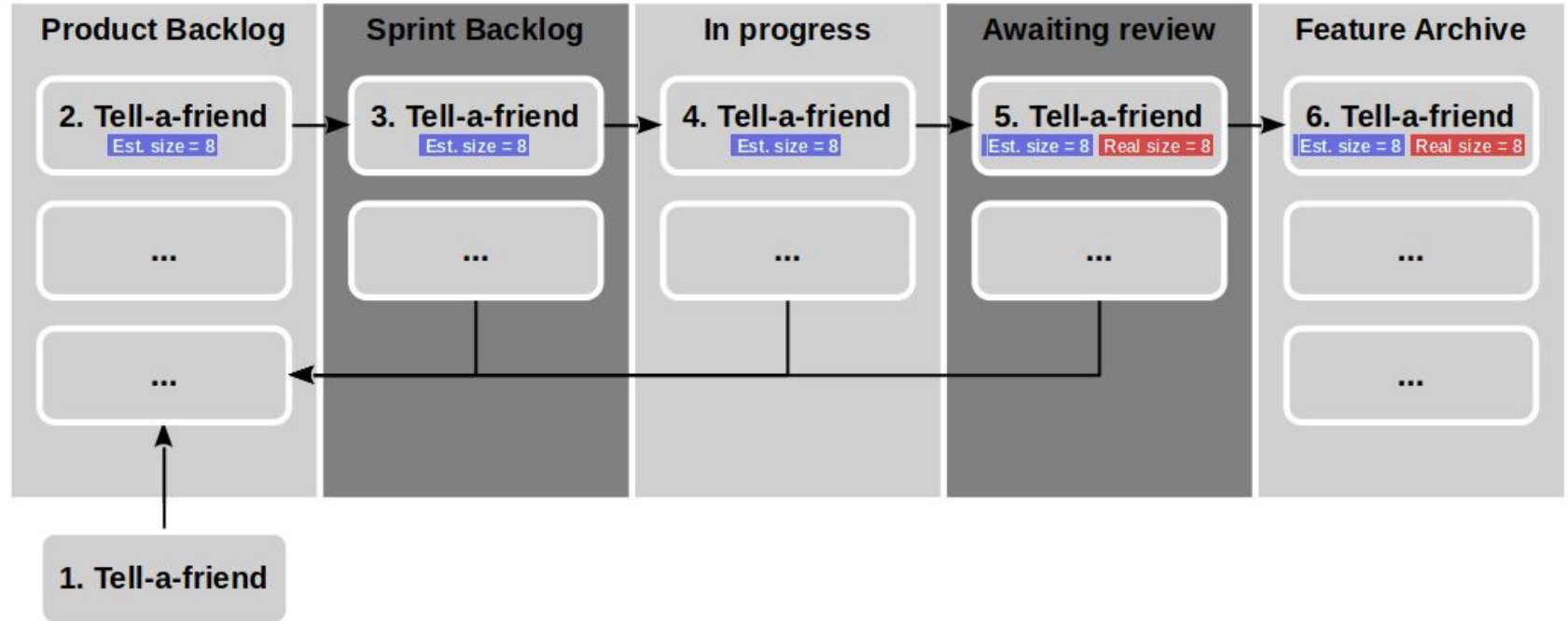
- Manage the processing state of backlog items

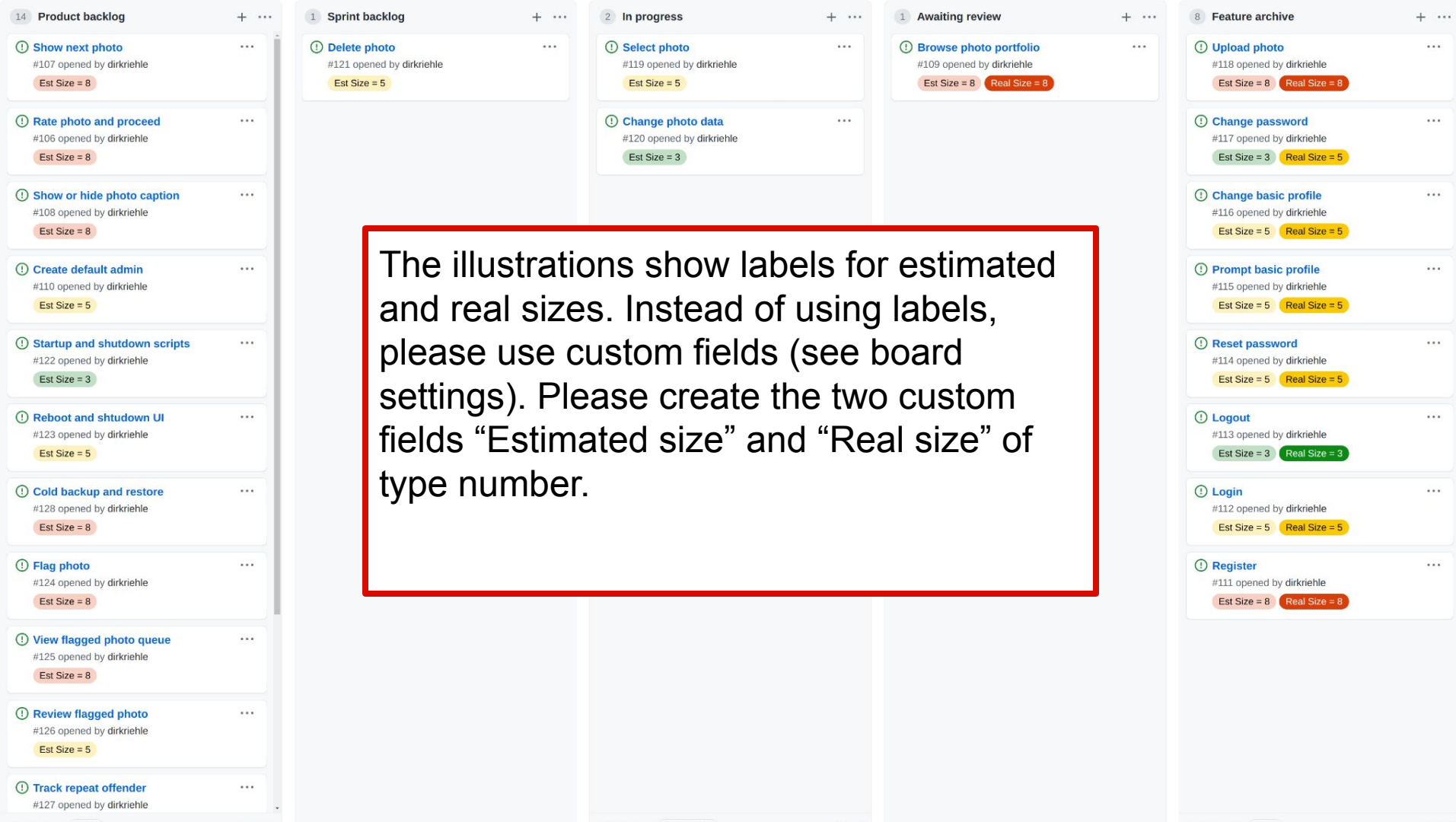
Types of slots (work process states, represented by columns)

- Product backlog (needs doing)
- Sprint backlog (ready to be done)
- In progress (being worked on)
- Awaiting review (needs sign-off)
- Feature archive (finished and archived)

Please do not change the feature board's setup

# Example Feature Board and Backlog Items







# Backlog Items (Also: Issue, Work Item, Ticket)

A backlog item is an

- Ideally semantically closed **task that needs doing**

Types of backlog items

- **Features** (functional and non-functional user requirements)
- **Refactorings** (behavior-preserving code improvements)
- **Bugs fixes** (fixes to malfunctioning code)

We use GitHub issues to represent backlog items

- Either by directly entering them into the GitHub project (the feature board)
- Or by entering them as an issue, also assigning them to the feature board

# Example Issue Using User Story Format



**Tell a friend** #129

dirkriehe opened this issue 2 days ago · 0 comments



**dirkriehe** commented 2 days ago • edited ▾

Owner



## User story

1. As a guest
2. I can email a friend about a photo
3. So that I can share my passion

## Acceptance criteria

- After hitting OK, an email is sent
- After hitting Cancel, no email is sent
- The next page is the main page

## Definition of done

To be defined week 5 onwards.




# Issue Templates

Please create a template for feature requests

- The template should contain fields for
  - Short name (already preset as title field)
  - Short description (using user story)
  - Acceptance criteria (to test for fulfillment)
  - Definition of done (from sprint 5 on)
- Create custom fields for features sizes
  - **Estimated size = X** for estimated sizes
    - Set during sprint planning
  - **Real size = Y** for actual size
    - Set during sprint review
  - Use escalating colors

Feel free to add other templates

**Issue: Feature Request** 

Suggest new feature (using user story)

**User story**

1. As a {},

2. I want / need {}

3. So that {}

**Acceptance criteria**

• Criterion 1

• Criterion 2

• ...

**Definition of done**

• Added after week 5

• Always the same

**Optional additional items**

Issue default title:

Assignees:

Labels:

[Pull requests](#) [Issues](#) [Marketplace](#) [Explore](#)[dirkriehle](#) / [wahlzeit](#)[Unwatch](#)

4

[Star](#)

5

[Fork](#)

289

[Code](#) [Issues 34](#) [Pull requests 1](#) [Actions](#) [Projects 1](#) [Security](#) [Insights](#) [Settings](#)

## Wahlzeit Backlogs

Updated on Mar 6

### 14 Product backlog



#### Show next photo



#107 opened by dirkriehle

Est Size = 8

#### Rate photo and proceed



#106 opened by dirkriehle

Est Size = 8

#### Show or hide photo caption



#108 opened by dirkriehle

Est Size = 8

#### Create default admin



#110 opened by dirkriehle

Est Size = 5

Automated as To do

[Manage](#)

### 1 Sprint backlog



#### Delete photo



#121 opened by dirkriehle

Est Size = 5



### 2 In progress

#### Select photo

#119 opened by dirkriehle

Est Size = 5

#### Change photo data

#120 opened by dirkriehle

Est Size = 3

Automated as In progress

### Delete photo #121



Opened in dirkriehle/wahlzeit



dirkriehle

commented on Mar 4

As a user, I can select any photo from my portfolio and have it deleted

After deleting the photo, it will not be shown any longer to any user

0

Assignees



dirkriehle



georg-schwarz

Labels



[Go to issue for full details](#)



Close issue

# Regular Deliverable: Feature Board

---

Please initialize your feature board and keep it up-to-date

- For the initial content, meet with your industry partner asap

Commit a screenshot of your feature board

## **6. Code Repository**

---

# Git User Setup

Please use only one account and **one email address and stick to it**

Please configure your name and email address for your local repository

Please make sure this is the same information as on github.com

```
dirk@host$ git config --local user.name "Dirk Riehle"  
dirk@host$ git config --local user.email "dirk@riehle.org"
```

# Git Commit Sign-off

---

Please sign-off on your commits as your work using `--signoff`

This will add your name and email address to the commit message

```
dirk@host$ git commit -m "Fixed issue #123" --signoff
```



# Pair Programming / Co-Authoring

If you are pair programming, please make sure you document this in your commits

- Add “Co-authored-by:” to commit message using **the correct email address**
- Double-check the syntax (otherwise co-authorship will not be recognized)

```
dirk@host$ git commit -a -m "Fixed problem  
>  
>  
Co-authored-by: Stefan Buchner <stefan.buchner@fau.de>"
```

**Each co-authored-by needs to be on its own line to be recognized**

Declaring collaboration in the feature board is not enough

Please find [more detailed information on GitHub](#)

# Making Your Work Count

---

We use git, not GitHub [1], to look at your work

If you want your work to count,

- Do not squash your commits
- Do not delete branches with relevant work

[1] The GitHub interface / GitHub insights does not display your data correctly

# The AMOS Project Licenses

---

For source code, we use the MIT license

- See <https://opensource.org/licenses/MIT>

For other data, we use the CC BY 4.0 license

- See <https://creativecommons.org/licenses/by/4.0/>

# License and Copyright Declaration in Files

Please use the REUSE SOFTWARE [1] format to declare license and copyright

```
// SPDX-License-Identifier: MIT  
// SPDX-FileCopyrightText: 2010-2021 Dirk Riehle <dirk@riehle.org>  
// SPDX-FileCopyrightText: 2019 Georg Schwarz <georg.schwarz@fau.de>
```

[1] See <https://reuse.software/>

# Open Source Governance

Do not add copyleft-licensed libraries to your project

Follow these rules of thumb on license choice

- OK: Permissive licenses (MIT, BSD, Apache)
- May be OK: Weakly protective (a.k.a. “weak copyleft”)
- Usually not OK: Strongly protective (a.k.a. “reciprocal” or “copyleft”)
- Never OK: Non-software licenses, no license

Professionals (i.e. companies) use code scanners to check

## **7. Imp-Squared Backlog**

---

# Impediments and Improvements (Imp-Squared) Backlog

---

The imp-squared backlog is a slotting system used to

- Manage the processing state of project impediments and improvements

Impediments are non-technical problems that are

- Holding the team and project back

Improvements are non-technical desires to

- Improve team performance

## Impediments Backlog

Updated 8 minutes ago

[+ Add cards](#)[Fullscreen](#)[Menu](#)

### 2 To do + ...

#### Cards ...

Cards can be added to your board to track the progress of issues and pull requests. You can also add note cards, like this one!

Added by dirkriehle

#### Automation ...

[Automatically move your cards](#) to the right place based on the status and activity of your issues and pull requests.

Added by dirkriehle

### 0 In progress + ...

### 0 Done + ...

+ Add column



# Regular Deliverable: Imp-Squared Backlog

---

Please initialize your imp-squared backlog and keep it up-to-date

Commit a screenshot of your imp-squared backlog

## **8. Stand-up Emails**

---

# Stand-up Emails

---

Stand-up emails are a communication mechanism that serves to

- Ensure regular updates about each other's work state / progress

When writing a stand-up email, please consider these three topics

1. What did you get done since you last sent a stand-up email?
2. What are your next steps / plans of work to do?
3. What challenges are you facing?

Separate from the stand-up emails, feel free to

- Have your own communication channels

# Regular Deliverable: Stand-up Emails

Please send stand-up emails using the tool <https://happy-amos.appspot.com/>

- At least twice in total, on different days of the week

## Standup Emails

Done


Finished implementation of login feature

Plans

Will work on UX for user management next

Challenges

Still waiting for the new icon for login!

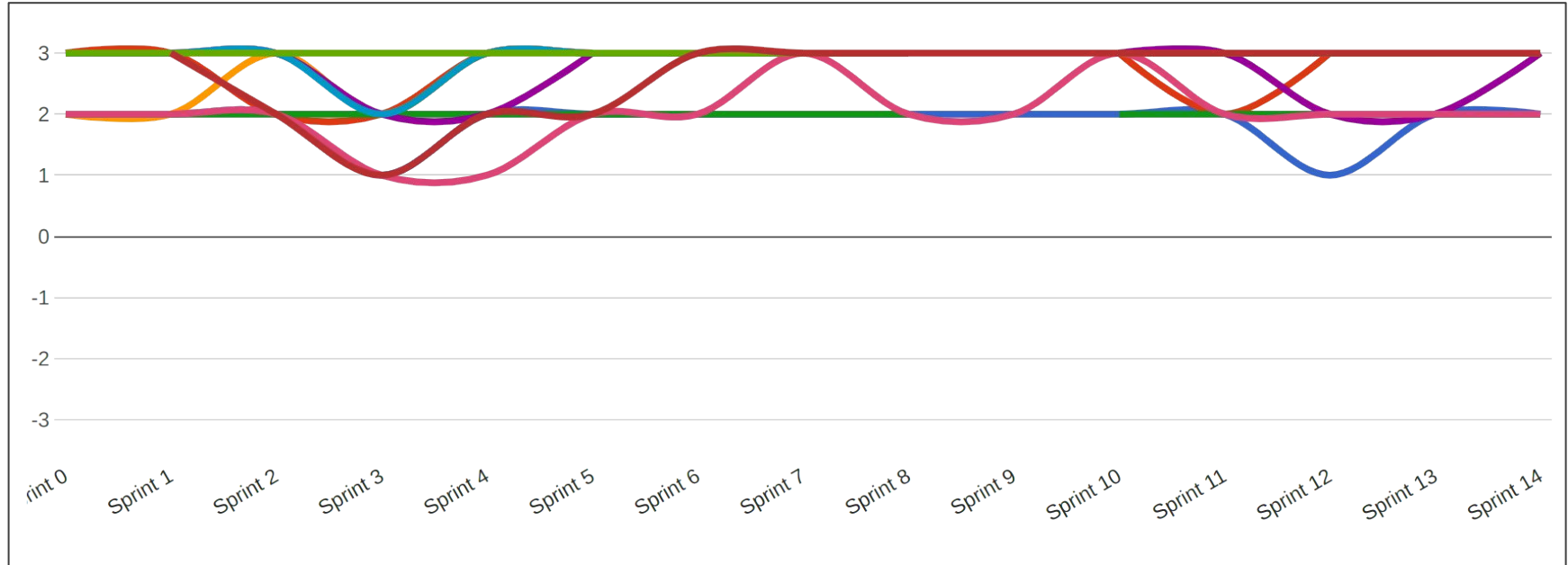
 Send Email

## **9. Happiness Index**

---

# Happiness Index [1]

The happiness index tracks general satisfaction to indicate potential problems



# Regular Deliverable: Happiness Index

---

Please indicate your happiness using the tool <https://happy-amos.appspot.com/>

- Every team meeting, including the first and last one, until end of day

Your contributions (your happiness) remains anonymous

# Summary

---

## 1. Team formation

- a. Student roles
- b. Team contract
- c. Team logo and T-shirt

## 2. Project tools

- a. Planning document
- b. Feature board
- c. Code repository
- d. Imp-squared backlog

## 3. Team coordination

- a. Stand-up emails
- b. Happiness index



# Thank you! Any questions?

---

[dirk.riehle@fau.de](mailto:dirk.riehle@fau.de) – <https://oss.cs.fau.de>

[dirk@riehle.org](mailto:dirk@riehle.org) – <https://dirkriehle.com> – [@dirkriehle](#)

# Legal Notices

---

## License

- Licensed under the [CC BY 4.0 International](https://creativecommons.org/licenses/by/4.0/) license

## Copyright

- © Copyright 2009, 2024 Dirk Riehle, some rights reserved