

Process Overview

Neronet

*Toolbox for managing the training
neural networks*

CSE-C2610
Software Project

Aalto University

March 1, 2016

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S	Start	End	D	Sa	Te	Tu	Jo	Ju	li	Ma
0	19.10.	13.11.	25	50	35	35	35	35	35	35
1	13.11.	4.12.	21	30	33	33	33	33	33	33
2	4.12.	13.1.	38	30	33	33	33	33	33	33
3	13.1.	1.2.	21	20	33	33	33	33	33	33
4	1.2.	29.2.	28	15	33	33	33	33	33	33
5	29.2.	18.3.	21	15	33	33	33	33	33	33
6	18.3.	11.4.	21	15	25	25	25	25	25	25

Note

- ▶ S2 includes exams (7.-18.12.) and holidays (23.12.-1.1.)
- ▶ S4 includes exams (15.-19.2.)
- ▶ S6 includes exams (4.-9.4) and is reserved for mainly polishing & documenting for final review (11.-13.4.)

Events

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Time	Event	Participants
30.10. 16-18	Project kickoff	team, PO
13.11. 15-17	S0 demo	team, Coach
16.11. 11-13	S1 planning	team, PO
04.12. 16-17	S1 & progress review	team, PO, Coach
04.12. 17-18	S2 planning	team, PO
13.01. 19-20	S2 review & S3 planning	team, PO
01.02. 14-16	S3 review & S4 planning	team, PO
29.02. 13-14	S4 & progress review	team, PO, Coach
29.02. 14-15	S5 planning	team, PO
18.03. 17-19	S5 review & S6 planning	team, PO
17.04. ??-??	S6 & progress review	team, PO, Coach
19.04. 16-20	Closing party and demos	team, PO, Coach

All events, locations, agendas and other details are up to date in [Google Calendar](#).

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Recurring events:

- ▶ Sprint planning
- ▶ Sprint review
- ▶ Sprint retrospective
- ▶ *Daily* scrums
- ▶ Teamwork sessions

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Sprint planning

A sprint planning session is organized at the start of each sprint.

1. Before the session

- ▶ the PO makes sure the **product backlog** contains an ordered list of items with a description and a number depicting business value
- ▶ the team plays planning poker to define effort estimates (**story points**) for each BI

2. During it the team and the PO

- ▶ briefly define the increment's purpose, the **sprint goal**
- ▶ move BIs from the product backlog to the **sprint backlog**

3. After it, the team

- ▶ chews the BIs into **smaller tasks**
- ▶ assigns effort estimates on the tasks by **planning poker**
- ▶ assigns a **developer and a reviewer** to each task

Sprint review

At the end of each sprint, we

- ▶ demonstrate the stories we were able to get *done*
- ▶ adapt the product backlog based on the results, if needed

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Sprint retrospective

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After the sprint review, we

- ▶ evaluate and rank teamwork practices
- ▶ discuss how teamwork could be improved
- ▶ remove/replace any bad practices
- ▶ plan implementation of new improvements
- ▶ give feedback to sprint team leader

Daily scrums

On Wednesdays and Fridays we have a scrum in which everyone quickly explains what

- ▶ they did since last Scrum
- ▶ problems they have encountered
- ▶ they plan to do before the next Scrum

Work plans are adjusted depending on input.

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Teamwork sessions

Most weeks, we'll

- ▶ have a Scrum and a 6h session on Wednesdays
- ▶ have a Scrum and a 5h session on Fridays
- ▶ do some individual work remotely to cover up any missed sessions

Team sessions are mainly held in Maari. The team leader leads the sessions.

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Used practices and tools:

- ▶ Testing & quality assurance: DoD
- ▶ Communication: Email, Flowdock, Hangout/Skype, WhatsApp
- ▶ Backlog management: Agilefant
- ▶ Time tracking: Agilefant
- ▶ Version control: GitHub
- ▶ Collaboration: Floobits, ShareLaTeX, Google Drive
- ▶ Motivation: Team Spirit Recap

We guarantee quality by making

- ▶ sure team members adhere to the **DoD**.
- ▶ each member responsible for the quality of the code he reviewed.
- ▶ the PO is responsible for the business value of sprint goals and BIs and for making sure the team understands them.

We use the following channels:

- ▶ Email - communication that involves the PO and Coach
- ▶ Flowdock - general forum for everyday discussion
- ▶ WhatsApp/Phone - urgent team communication
- ▶ Skype/Hangout - remote teamworking sessions

The sprint team leader communicates with the PO and Coach.

Backlog management

Agilefant is used for all backlogs.

- ▶ Version 1 - the **product backlog**
- ▶ Sprint 0-6 - the sprint backlogs

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Time tracking

We track our worktime with Agilefant. We log each work session duration to the story or task we worked on.

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Version control

We use Git with GitHub and branches:

- ▶ **stable** - tested and working version
- ▶ **sprint** - increment work in progress
- ▶ **storyX** - story work in progress

Our development process has four steps:

1. We assign a developer and a reviewer for each story
2. The developer solves the story in a new branch
3. Then he asks the reviewer for a merge review
4. The reviewer determines whether the work meets the story requirements and the DoD
 - ▶ if not, he asks the developer to continue working on it
 - ▶ if yes, he merges the story branch to the sprint branch and the developer marks the story as *done*

When we work simultaneously on the same documents we use Floobits, ShareLaTeX, or Google Drive depending on the document.

Floobits is connected to a Git repo clone which facilitates when working with many files. It is particularly suitable for collaborative code level planning and code reviews.

We have three main practices to maintain motivation:

- ▶ Regular review of the *six tactics*
- ▶ Regular review of our *team spirit recap*
- ▶ Regular discussion on problems (retrospectives)

Motivation

Six tactics

1. Create common goals
2. Focus on facts
3. Develop multiple alternatives
4. Maintain a balanced power structure
5. Seek consensus with qualification
6. Use humour

Eisenhardt K M, Kahwajy J L, and Bourgeois III L J (1997) How Management Teams Can Have a Good Fight, Harvard Business Review, Vol. 4, pp. 77-85.

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Motivation

Team spirit recap

Mission: Why we exist

- ▶ Create useful software for Pyry (and others)
- ▶ We are doing this project to learn (software development, requirements engineering, architecture, project management, quality assurance, Scrum, communication with client)
- ▶ We want grade five and the quality award

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Values: What we believe in and how we will behave

- ▶ Superior quality
- ▶ Self-development
- ▶ Respect
- ▶ Achievement

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Team spirit recap

Vision: What we want to be

- ▶ We want to see ourselves as the best of the course teams
- ▶ We want to win the Quality award!
- ▶ We want to get grade 5+.
- ▶ We want to get an awesome reference (GitHub repo) that we can market on our future job applications.
- ▶ We want our tool to serve people in such a way that a community of users develops around it and continues it's development. We want to launch a successful opensource project, which we can speak proudly of even years from now.

Motivation

Team spirit recap

- ▶ Objective: Ace the course and develop a very useful and popular tool
- ▶ Scope: See product vision
- ▶ Advantage: We have high motivation, we meet in person every week, we have an active and responsible Scrum Master

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