Process Overview

Neronet

Toolbox for managing the training neural networks

CSE-C2610 Software Project

Aalto University

April 12, 2016

Process Overview

Neronet

chedul

D........

Overview

Practices





Process Overview

Neronet



Neronet

S	Start	End	D	Sa	Te	Tu	Jo	Ju	li	Ma	STL	Recurring
0	19.10.	13.11.	25				35	35	35	35	Sa	Overview Events
1	13.11.	4.12.	21	30	33	33	33	33	33	33	Jo	
2	4.12.	13.1.	38	30	33	33	33	33	33	33	Tu	Overview Information
3	13.1.	1.2.	21	20	33	33	33	33	33	33	li	
4	1.2.	29.2.	28	15	33	33	33	33	33	33	Ма	
5	29.2.	30.3.	??	15	43	43	43	43	43	43	Te	
6	30.3.	11.4.	??	15	15	15	15	15	15	15	Sa	

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.)

Aalto University School of Science

Neronet

Plans

verview

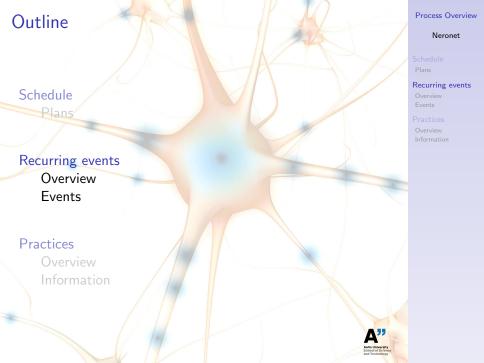
ractices

Informatio

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
30.03. 16-18	S5 review & S6 planning	team, PO
13.04. 16-17	S6 & project review	team, PO, Coach
19.04. 16-20	Quality award & party	team, PO, Coach

All events, locations, agendas and other details are uptodate in Google Calendar.







Process Overview

Neronet

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 Bls into smaller tasks
 - assigns effort estimates on the tasks by planning poker
 - assigns a developer and a reviewer to each task

However, since sprint 3 we've done all this in the same session due to increased efficacy/experience.

Sprint planning

Sprint team leader

At each sprint planning session the new sprint team leader is given extra time to express any thoughts about the plans of the sprint and make sure he/she is able to commit himself to the sprint goals.

The sprint team leader, together with the scrum master, takes main responsibility for ensuring the team is able to work effectively and with good spirits yielding high quality results.

Process Overview

Neronet

Schedul

Recurring event

Events

Practices



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

Process Overview

Neronet

Schedule

Recurring event

Overview

Events

Practices



Sprint retrospective

In first two sprints, after each 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

Process Overview

Neronet

Schedule

Recurring events

Overview

Events

Practices



Sprint retrospective

Currently we're going through these steps

- Visiting and updating the team's DoD
- Visiting and reviewing the commitments done in the last sprint retrospective
- Identifying things the team should start, stop or continue doing
- ► Listing actionable commitments

Process Overview

Neronet

Schedule

Recurring even

Events

ractices



Practice

Information

During the first two sprints we carried out a daily scrum on Wednesdays and Fridays in which everyone quickly explains what

- they did since last Scrum
- problems they have encountered or might soon encounter
- they plan to do before the next Scrum.

Work plans were adjusted depending on input. Since then we've started to carry out daily scrums only once a week.



Teamwork sessions

Process Overview

Neronet

Schedule Plans

Recurring event

Events

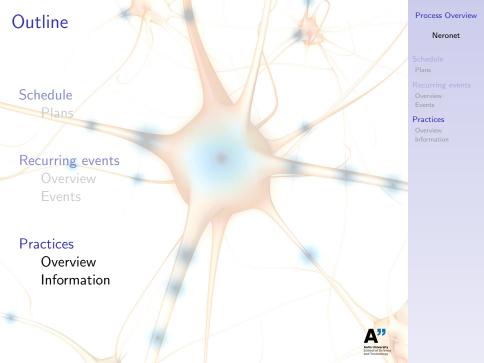
Overview Informatio

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.





Used practices and tools:

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

Quality assurance

Process Overview

Neronet

Schedule

Recurring event

Overview Events

Overview

Information

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 external parties
- Flowdock general forum for everyday discussion with the team, the PO and/or Coach
- WhatsApp/Phone urgent development team communication
- ► Skype/Hangout remote teamworking sessions, especially with the PO

The scrum master and sprint team leader are responsible that all parties are in the same boat.

Backlog management

Agilefant is used for all backlogs.

- Version 1 the product backlog
- ► Sprint 0-6 the sprint backlogs

Process Overview

Neronet

Schedule

Recurring event

)verview Events

Practices



Time tracking

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

Process Overview

Neronet

Schedule

Recurring events

Overview Events

ractices



Version control

We use Git with GitHub and branches:

- stable tested and working version
- sprint increment work in progress
- ► story X 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 often 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

Process Overview

Neronet

Schedule

ocurrin

Overvie Events

Practices



Overview Events

Overview

Information

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 meeting notes, discussions, collaborative code level planning and code reviews.



Motivation

Process Overview

Neronet

Schedule Plans

Recurring event

Events

Practices

Information

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.

Process Overview

Neronet

Schedule Plans

Recurring event

Overview Events

Practices



Motivation Team spirit recap

Process Overview

Neronet

Schedule Plans

Recurring event

Overviev Events

Practices

Information

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



Motivation

Team spirit recap

Values: What we believe in and how we will behave

- Superior quality
- Self-development
- ► Respect
- Achievement

Process Overview

Neronet

Schedule Plans

ecurring events

Events

Practices



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.

Neronet

Schedule

Recurring (

Overview Events

Overview Information



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

Process Overview

Neronet

Schedule Plans

Recurring events

Practices

