

Meetings

Notes on meetings. Each meeting is documented under a section title of the form: <month>-<day> <duration_in_minutes>m <event title>

10-07 60m First skype with PO (teamPy)

Participants: team + Pyry

Agenda:

- introduction to project
- general discussion

10-09 120m Meeting Jelena

Participants: team + Jelena

Agenda:

- introduction to research group
- learning about research practices
- discussion about project

10-14 120m Drafts meeting

Participants: team - TuLiJu

Agenda:

- initial plans
- current drafts
- distribution of work

10-22 60m Quick SM-PO chat

Participants: Samuel + Pyry

Agenda:

- status overview
- schedule
- practical issues
- technical research methods

10-23 210m Artifacts worksype

Participants: Samuel, Joona, Matias

Agenda:

- Process Overview – Matias
- Product Vision – Joona
- Definition of Done – Joona

10-24 120m Artifacts worksype

Participants: Samuel, Teemu, Tuomo

Agenda:

- Product Backlog
- Technical Overview

10-25 90m Tech worksype

Participants: Samuel, Matias, Teemu, Tuomo, Iiro

Agenda:

- Discussed and studied the state of the art

10-25 120m Triton worksype

Participants: Samuel, Tuomo, Iiro, (Matias)

Agenda:

- Studied Triton and SLURM

10-28 180m Wedshop

Participants: team - Juho

Agenda:

- general status check
- discussing artifacts
- researching about the state of the art

10-30 300m Frifury

Participants: team - Juho

Agenda:

- Agilefant (time tracking)
- Technical overview
- Product vision
- Other artifacts

10-30 120m First meeting with PO

Notes by Joona & Teemu

Questions we discussed

- importance of queue management functions
- technical details

Things we clarified

- requirements by the PO
- the current workflow

Decisions made

- Command prompt applications, no web UI
- Two different applications: Server and client
- Client application contacts server. The client application doesn't have to be running all the time.
- Server application contacts the clusters to run the experiments, manages the experiment queues and collects information on running experiments. The server also saves the information and notifies the client if the experiments go wrong. In an ideal situation the server application is always running.
- Queue management can use either jobman or slurm
- Server makes a .csv document about the past experiments and their outputs and the client can download it.
- Server can tell the information on the available GPU:s etc.
- Config:
 - Defines the ID of the experiment (author, subject, name, group name, git commit ID)
 - Define the variables that must be extracted and sent to the server

- The Preconditions (minimum available disk space, expected max time, minimum RAM)
- The files that must be sent to the cluster

Things yet to research/decide

- Simo
- Possibly in the future a web interface and user login

Roadmap

- TBD

11-03 90m Lunch with Simo

Participants: Samuel + Simo Tuomisto

Agenda:

- introduction
- general design approach
- practicalities

Hi,

I had a small chat with Samuel during lunch, but I'll gladly accompany you for an another talk.

I briefly outlined that my recommendation would be to utilize a master-slave structure where the client software would ssh to the cluster (triton, gpu machine etc), start a master daemon process and run desired number of slave jobs using applicable shell wrapper (sbatch, bash).

This master could then listen runtime communication from slaves and stash them for the client to collect. Client could then collect them via ssh.

The main reason for this recommendation is that piping ssh through multiple layers of gateways is inefficient and troublesome to configure. Typical network structure looks like this:

```
user <-> user network gateway / shell server <-> internet <-> cluster
network gateway / frontend <-> cluster node
```

Now running job in cluster node requires ssh to frontend, but if a response would be initiated by the cluster node, it would require ssh to the user shell server and from there to the user machine. As other ports besides ssh ports are not visible to the internet (for security reasons) this makes two-way communication between node and user at the least complicated.

Thus a work flow where run information gathering is initiated by the user is much more straightforward and it requires only one ssh connection. This also means that passphrase protected private ssh keys can be stashed to the user machine instead of moving them all the way to the nodes.

This scheme can be run as is on other machines. There instead of sbatch, some other shell would be used and communication would be done to localhost instead of the login node.

I also recommend that the communication between the master and slaves is done using some simple network protocol instead of by files. This would lessen the load on shared file systems.

I'm checking on giving you access to Triton some way or another.

Regards, Simo Tuomisto CS/Triton Admin

11-04 180m Wedshop

Participants: team - Juho

Agenda:

- Aalto-student contract
- Time tracking & Agilefant
- Evaluation criteria
- Technical overview (Simo's input)
- EES participation

11-04 105m EES 01: Adopting scrum

Participants: Samuel

PO and requirements:

- Interviews for requirements gathering and/or researching feasibility of potential technical solutions -Samuel
- How to modify customer requirements into user stories into the backlog
- How to specify requirements if different persons from client company have different opinions about a topic

- What is the customers role as a product owner when the team has done the service design

Teamwork:

- Scrum, scrum master and team leadership. Should a Scrum Master take the role of a Team Leader?
- Leadership in self-organizing teams. Eliciting intrinsic motivation and self-direction and initiative in team members. -Samuel
- Teamwork power structure, work organization, effort distribution

Software quality:

- How to make your sprint board reflect your DoD
- Quality assurance and automated deployment (continuous integration) with Github, CircleCI and Heroku

11-06 90m Expert meeting (Simo Tuomisto)

Notes:

- Neroman could run on a web browser or be a QT application
- Excel or application shows results (multiple options)
- parameter combinations can be numerous
- SSH can be slow + file system unreliable + can crash unexpectedly
- http could be a better protocol
- SSH-stdout-payload-scp
- Refresh/real time data
- Neroman could be http server application
- Possible implementing order nerokid-neromum-neroman
- Job scheduling
- hdf5 could be used by neromum to save the experiment output data

11-06 210m Frifury

Participants: team

Agenda:

- 15m Scrum
- 20m General discussion
- 40m Agilefant

- 20m Schedule
- 100m Market research (matute)
- 100m Prototype design (iijo)

Scrum:

Tuomo:

- Has studied Jobman
- Thought it is important to show the technical overview to the PO

Iiro:

- Has studied iPython
- We should continue researching user requirements

Matias:

- Has thought about teamwork practices and Agilefant
- We should communicate more with the end users and then improve the accuracy of the software design

Teemu:

- Thinks it is very important to have good plan before starting to code
- Feels the current plan is pretty reasonable

Joona:

- Has thought about teamwork practices and Agilefant
- Thinks we need to define classes and make class diagrams
- Need input how to specify experiments

Samuel:

- Has been doing technical overview to prepare to our interviews
- Has been interviewing simo
- Redone agilefant
- Participated in EES

Notes on existing tools

Blocks:

- saving and resuming training
- monitoring, analyzing values
- Theano operations
- algorithms to optimize a model

Ipython:

- manages job distribution
- manages parallelism
- seemingly quite similar to Slurm

Ask the custom whether they have used Blocks/Ipython/Sacred etc

11-06 180m Satscrum in Hangout

Participants: team

Agenda:

- 10m Scrum
- 30m Discussing results
- 120m Prototype development (iitutejo)
- 80m Prototype development (ma)
- 20m Discussing results

Tasks:

- iitu by 17:00: come up with a design in how the Python package and version management should be dealt in our project. Google and check existing projects.
- jote by 17:00: start sketching the prototype.

Homework:

- Everyone installs and tests a Python 3.5 environment

Homework

On Ubuntu 14.04:

```
sudo add-apt-repository ppa:fkru11/deadsnakes
sudo apt-get update
sudo apt-get install python3.5
```

```
python3.5 -m venv projects/neronet/.venv
```

Resources:

- [PEP-0405](#)
- [venv](#)

11-09 90m Review of product vision

Participants: team + PO

Agenda:

- 20:00: 10m Discussing agenda
- 20:10: 10m Summary of past weeks
- 20:20: 20m Discussing existing tools
- 20:40: 20m Updating the product vision
- 21:00: 20m Discussing backlog management
- 21:20: 10m Discussing contacting other researchers

Links:

- https://floobits.com/smarisa/neronet/file/doc/notes_on_meetings.md:362
- https://floobits.com/smarisa/neronet/file/doc/project_information.md:35
- https://floobits.com/smarisa/neronet/file/doc/project_information.md:393
- https://github.com/smarisa/neronet/blob/sprint/doc/product_vision.pdf
- https://floobits.com/smarisa/neronet/file/doc/notes_on_tools.md:115

Notes:

- Keep studying LadderNet's similar functionalities and sacred. Could these be utilized with our project? Possibly also check Blocks.
- Query requirements and other ideas after prototype is finished

- Targets: Simo, Blocks lead developer at GitHub and Torch developers, Google group, Reddit
- Example: Hey, we've been thinking a tool like ... would be great. What do you think?
- Later when the product has taken some shape and we've had some user testing, possibly start marketing more clearly

Backlog management

See notes on tools.

Agilefant

- As a user, I want to specify experiments so that they are easy to manage and run.
 - As a user, I want to alter the experiments data programmatically so that I can manage it more effectively.
 - As a user, I want to batch import experiments data so that it is easy to migrate.
 - As a user, I want to specify experiments by name, files and parameters to distinguish them.
 - As a user, I want to specify experiment collections to help manage them.
 - As a user, I want to edit existing experiments and collections so that I can update them.
- As a user, I want configurable views to my experiments and collections so that I can review them effectively.
 - As a user, I want a compact CLI summary view so that I can review them remotely.
 - As a user, I want a compact CLI collections view so that I can review them remotely.
 - As a user, I want a compact CLI experiment view so that I can review experiment details remotely.
 - As a user, I want an interactive and configurable GUI view to review my experiments.
- As a user, I want to manage the running of experiments so that my resources are best used.
 - As a user, I want to configure clusters to best utilize my resources.
 - * As a user, I want to configure clusters by address and type to specify my computing resources.
 - As a user, I want to configure unmanaged nodes to utilize simple clusters.

- As a user, I want to configure Slurm cluster gateways to utilize Slurm clusters.
- As a user, I want to submit individual experiments to be run so that I can later analyse them.
- As a user, I want to submit batches to be run so that I can later analyse them.
- As a user, I want to specify experiment batches and queues to best utilize my resources.
- As a user, I want to monitor ongoing experiments so that I know what to do next.
 - As a user, I want to monitor batch and experiment run status so that I know what is going on.
- As a user, I want to access the data of my past experiments so that I can analyse them.
 - As a user, I want to backup and extract the experiments data files manually so that I remain in full control.
 - As a user, I want to batch export experiments data so that I remain in full control.

11-11 360m Wedshop

Participants: team

Agenda:

- 13:00: 15m Scrum (Python 3.5 environment setup homework)
- 13:15: 45m Team spirit recap
- 14:00: 15m Updating process & vision artifacts (jote)
- 14:00: 15m Updating technical & dod artifacts (tuma)
- 14:35: 185m Backlog item planning poker
- 17:40: 50m Neroman development (iite)
- 17:40: 50m Nerokid and Neromum development (tuma)
- 18:30: 20m Discussing results and making decisions
- 18:50: 10m Updating agilefant
- 19:00: Going home!

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, quality award
- Values: What we believe in and how we will behave
 - Superior quality
 - Self-development
 - Respect
 - TBD, Achievement? – We work together to deliver superior results and achieve understanding.
- 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 open source project, which we can speak proudly of even years from now.
- Strategy: What our competitive game plan will be
 - 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, active and responsible Scrum Master

- Balanced scorecard: TBD

Neroman development

- Database daemon + CLI client + GUI client

11-13 60m Demo exercise

Participants: team

Agenda:

- 13:00 10m Agree demo presentation tasks
- 13:10 40m Practice presentation
- 13:55 5m Pause

11-13 60m Sprint retrospective

Participants: team

Agenda:

- 14:00 10m Sketch retrospective structure
- 14:10 30m Discussion
- 14:40 10m Review
- 14:50 5m Get everyone's aalto account id (username), send them to Simo
- 14:50 10m Pause

Evaluate and rank teamwork practices

Sprint planning:

- backlog items must be clear and simple -teemu
- backlog items have been unclear, but the user guide probably helps -joona
- it would have been better if the PO had created the stories from scratch -matias, tuomo
- the PO should give input when developing the user guide -joona
- we should do it on monday -tuomo, joona, teemu
- we should make sure we reserve enough time for the actual story selection on Monday -matias

Daily scrums:

- we have mostly been doing teamwork, so there has been little new info in the scrums -Matias -Joona -Teemu
- they have been overly long and they have extended due to inexperience.
- people are late.

Teamwork sessions:

- sessions are too long and sometimes people get hungry.
- generally someone has to leave early or comes late
- we balanced the session lengths(wed 6h fri 5h).

Tools:

- flowdock is good x6
- for remote work we have been using google hangout and skype. Skype has proven to be the most stable.

- for faster communication we are using whatsapp.
- agilefant has a steep learning curve. -Iiro
- people tend to forget to log their time at agilefant.
- hope to use more github during sprints
- floobits ain't very good. Doesn't seem to work in its intended purpose.

Top 3 tools

1. GitHub
2. Flowdock
3. Agilefant

Worst 3 tools

1. Floobits
2. Six tactics
3. Agilefant

How teamwork could be improved

- People should be more on time.
- hard to think on improvements on sprint 0

Aalto usernames

smarisa, perat1, marjakj1, pitkanl5, blomqvt1, tahkail

11-13 120m Sprint 0 demo

Participants: team + coach

Agenda:

- 15:00 10m Discussing agenda -Samuel
- 15:05 20m Process overview -Joona
- 15:25 20m Retrospective results -Teemu
- 15:45 10m Product vision -Matias
- 15:55 15m Technical overview -Tuomo
- 16:10 10m Definition of done -Iiro
- 16:20 10m Backlogs -Iiro
- 16:30 15m Prototype demo -Samuel
- 16:45 15m Post review discussion

11-16 120m Sprint 1 planning

Participants: team + PO

Agenda:

- 11:00: Agenda
- 11:10: Review of sprint 0 results
- 11:20: Sprint team leader's word
- 11:30: Discussing the budget
- 11:40: Discussing the product backlog
- 11:50: Definition of the sprint goal
- 12:10: Selection of backlog items (BIs)
- 12:30: Clarification of BIs (user guide)
- 12:50: Committing to the sprint goals

What is sprint planning: *A time-boxed event of 1 day, or less, to start a Sprint. It serves for the Scrum Team to inspect the work from the Product Backlog that's most valuable to be done next and design that work into Sprint backlog.*

Sprint team leader

Leaders:

- S0: Samuel
- S1: Joona
- S2: Tuomo
- S3: Iiro
- S4: Matias
- S5: Teemu
- S6: Samuel

Tasks:

- Scheduling & communication with all parties
- Planning and preparing meeting agendas
- Keeping track of progress and ensuring achievement of sprint goals
- Making sure the *big picture* progresses optimally
- Making sure the sprint review & demo is excellent
- Maintaining and boosting team spirit and motivation in collaboration with the scrum master

Note:

- The scrum master will coach and support the sprint leader.
- Constructive feedback is given to the leader by all team members at the end of the sprint.

Budget

Facts:

- We have at least 10h of storyless work per developer to be done during sprint 1, thus only 5x25h of developer time is left for story fulfilment work.
- Total story points in product backlog defined for non-epic stories at the end of sprint 0: 26

Assumptions:

- We have two two person teams doing pair programming.
- One story point equals 4h of (productive) pair time:
- 40min of studying for and planning the work and sketching the user guide
- 90min of developing the code and unit tests
- 30min of documenting the work and updating the user guide
- 40min of peer reviewing and testing the work of an other pair
- 40min for backlog management, time tracking and pauses

Results:

- The sprint budget is 50h of pair time.
- We can do about 12.5 story points per sprint.
- Our average weekly pair time budget is about 16h.
- Our week velocity (number of story points done per week) should be about 4.

Question:

- Are the assumptions reasonable?
- Which stories should we do in sprint 1?

Sprint goal

References:

- [Scrum.org: Scrum Glossary](https://www.scrum.org/Scrum-Glossary)

- ScaledAgileFrameworks.com: Sprint goals
- RomanPichler.com: Effective sprint goals
- Luxoft.com: 7 sprint goal patterns for building great teams

Quotes:

- *Sprint Goals are a high level summary of the business and technical goals that the team and Product Owner agree to accomplish in a sprint.*
- *Sprint Goal: a short expression of the purpose of a Sprint, often a business problem that is addressed. Functionality might be adjusted during the Sprint in order to achieve the Sprint Goal.*
- *The Sprint Goal, or mission objective, is not repeated over the course of many sprints. Each sprint should have its own unique mission.*
- *Setting the Sprint Goal is the Product Owner's responsibility, but crafting it is a shared responsibility of the Scrum Team, including PO.*
- *The Sprint Goal encourages initiative in multiple areas – teamwork, technology, quality, and mindset. However, while improving those areas, make sure that you are creating a potentially releasable increment by the end of the Sprint.*

Benefits:

- Align team members to a common purpose
- Ensures that everyone moves in the same direction
- Facilitates prioritisation
- Facilitates teamwork
- Facilitates giving and analysing feedback
- Supports communication

Candidates:

- Develop a prototype that offers the most basic functionality via a CLI
- (any alternatives?)

Sprint backlog

[Sprint 1 in Agilefant](#)

Meeting results

- Assumptions are resonable.
- Sprint goal: Develop a prototype that offers the most basic functionality via a CLI

11-17 90m Team leader mentoring session

Participants: Joonas + Samuel

Agenda:

- 19:00 Schedule
- 19:10 Work plan
- 19:50 Architecture, interfaces, databases, work instructions

11-18 360m Wedshop

Participants: team

Agenda:

- 13:00: Discussing agenda
- 13:05: Daily scrum
- 13:15: Discussing work distribution (f.ex tuma: submit experiments to unmanaged nodes (5 pts) jo: user guide (3 pts) iite: the rest (5 pts) sa: sphinx reviewers: tuma-> jo, jo->iite, iite->tuma)
- 13:20: Quick discussion of tools (sphinx, unittest, coverage.py?, PEP 8, autopep)
- 14:00: Dividing user stories to subtasks, estimating work, Updating user guide and Defining component interfaces (DBs, configs, nero daemons, individual functions)
- 16:00: Pair programming (iimatute)
- 16:00: EES2 (josa)
- 18:30: Sphinx demo, PEP 8, autopep
- 18:50: Update agilefant (time tracking)

User guide:

- implementation 10h
- peer review 2h

Submit experiments to unmanaged nodes:

- planning 3h
- neroman 3h
- neromum 3h
- nerokid 3h
- testing 3h

- documentation 2h
- peer review 3h

Specify clusters by address and type to specify my computing resources: (4h)

- planning 30min
- neroman 120min
- testing 30min
- documentation 30min
- peer review 30min

Specify experiments by name, files and parameters and edit and delete them:
(8h)

- setup 40min
- planning 110min
- neroman 150min
- testing 60min
- documentation 60min
- peer review 60min

Want an experiment status report so that I can review experiment status details:
(8h)

- planning 30min
- neroman 120min
- neromum
- nerokid
- testing 90min
- documentation 90min
- peer review 90min

Daily scrum:

Iiro:

- Didn't participate

Tuomo:

- Has listened at a boring sprint planning
- No preferences as to what to do next

- No problems, too much time used on defining file hierarchy

Matias:

- The same as Tuomo
- Wants to install tools
- Too little time for the first sprint planning

Teemu:

- The same
- Wants to start working
- Didn't have time to plan setting clusters well enough at the sprint planning

Joona:

- Participated at the sprint planning
- Has planned the team meeting with Samuel
- Wants to start working
- Others don't know enough compared to Samuel

Notes

- [Sphinx documentation](#)
- [Google style guide](#)

11-18 105m EES 02: Requirements engineering

Participants: Samuel, Joona

PO and requirements:

- Methods to elicit/gather requirements from potential users, other than interviews, maybe via web communities? -Samuel
 - stranger editable mind map of feature ideas posted for others to edit
 - quick briefing + invitation for a meeting or skype
- Developing a User guide as a kind of product prototype to boost discussion and understanding of user stories. -Samuel
 - good idea
- documentation: levels, minimalism, uptodateness, usefulness, keep the code clean and self evident

11-20 300m Story skype & Frifury

Participants: team + PO (90m)

Agenda:

- 14:00 Development
- 14:40 Scrum
- 15:00 Development
- 15:45 Discuss user guide (JoLiTe)
- 16:15 Discuss user guide (JoMaTu)
- 17:00 Pyry on Skype
- 18:20 Testing & documentation workshop
- 18:50 Time tracking

11-25 360m Wedshop

Participants: team

Agenda:

- 13:00 Scrum
- 13:20 Development
- 13:35 Discussing peer review and GUI user guide and user stories
- 13:50 Development
- 18:00 Status review
- 18:20 Estimating remaining tasks
- 18:50 Time tracking

Scrum

Iiro & Teemu:

- Trying to make tests work
- Trying to figure out if functions should return exceptions (Iiro: yes)
- hdf5 requires numpy
- Will succeed in implementing user stories by next week
- Will finish specifying experiments and start specifying clusters

Tuomo & Matias:

- Make neromum code better

- Made one-to-many connection from mum to kids
- Documenting
- Trying to get sphinx to work
- Potential problems: parsing packages
- Will make better communication between mum and kids
- Will make communication happen between neromanand neromum

Joona:

- Skype PO to get input to user guide
- Writing user guide
- No problems
- Will finish CLI user guide

11-27 300m Frifury

Participants: team

Agenda:

- 14:00 Team programming
- 14:15 Scrum
- 14:30 Checking the user guide https://github.com/smarisa/neronet/blob/us1_user_guide/doc/user_guide.
- 15:00 Development
- 18:30 Estimating remaining tasks
- 18:50 Time tracking

Scrum

Samuel:

- Getting familiar with the current daemon library and TCP servers
- Coding python-daemon
- Will finish the daemon

Tuomo:

- Socked connection
- Thought about test cases
- No problems
- Will start making tests

Matias:

- Flow from man to kid works
- No problems
- Will make tests and documentation

Teemu:

- Specifying clusters
- Will make experiment status

Joona:

- Finished CLI user guide and fixed syntax errors
- Will start making artifacts
- Should be no problems

12-02 360m Wedshop

Participants: team + PO(60min)

Agenda:

- 13:00 Development
- 13:15 Scrum
- 13:30 Unit testing + documentation
- 14:00 Skype with PO on user guide and backlog (jo)
- 14:30 Preparing demo (iimatutejo)
- 17:00 Peer review (iimatu) + Artifacts (tejo)
- 18:00 Retrospective with Matias

Daily Scrum:

Teemu:

- Made experiment status report to print the experiment's current state
- Potential problems: Maybe too much to do
- Will finish experiment status report

Samuel:

- Planned things to do

- Consulted people
- Potential problems: A lot to do, still hopeful
- Will test triton

Tuomo & Matias:

- Made unit tests for submitting experiments
- Made connection between neroman and neromum work better
- Problems: Code structuring changes has slowed down development
- Will make rsync work

Joona:

- Started making Progress report
- Planned things to do
- Finished CLI user guide
- Potential problems: Maybe too much work
- Will skype with PO

Retrospective

Improvements since sprint 0

- Replaced six tactics with Team spirit recap
- Balanced our team's power structure by selecting a team leader for each sprint
- Punctuality: Many have improved, Iiro hasn't. Samuel has also been more absent. Everybody should try to be more punctual or at least inform early about being late.
- Ambiguity in user stories got less of an issue due to the user guide

Practices

- Team leader per sprint
 - Matias: Great not to give Samuel all responsibility
 - Iiro: Might be a bit confusing for the PO and I'm not sure how I'll manage it in the next sprint
 - Tuomo, Teemu, Joona and Samuel like the idea
- Pair programming

- Matias: Works fine, a lot of time used for coordination within the pair
- Iiro: I feel that our pair work might have been a bit inefficient in development and testing, but it helped a lot in planning and documentation
- Teemu: Difficult to share work. Otherwise works well.
- Samuel: In sprint 2 I suggest we program in pairs but do not employ pair programming, work together as they best see fit.
- Developing user guide first:
 - Matias: We shall see
 - Iiro: I feel we have strayed from the reason we began to implement a user guide. Now it feels to be restrictive rather than descriptive.
- - Joona: I feel that it is very good as it reflects the requirements of the PO.
 - Samuel: It should be considered as a sort of prototype. It is not useful to hang ourselves to it.
- Sprint planning
 - Matias: Difficult to break user stories into useful and small tasks
 - Iiro: Our stories were already small, they were difficult to break even smaller.
 - There was slight contradictions in understanding user stories
 - Integration work took a lot more time than expected
- Daily Scrums
 - Matias: Worked fine this time, not of much use
 - Iiro: Need to attend more of them...
 - Teemu: They could have been used more in integration and inter pair coordination
- Teamwork sessions
 - Matias: times fine, people are away too often, peer reviews should be distributed evenly throughout the sprint
 - Iiro: Sometimes too much commotion
- Peer review
 - Done in a big hurry, we should reserve more time for it
 - We should study more about how it should be done

Tools

- user guide
- flowdock
 - Matias: Hasn't used much
 - Iiro: doesn't like the idea of PO reading the messages
- skype
 - Matias: Wasn't used much
- whatsapp
 - Matias: reads often
 - Iiro: I don't keep my phones internet always on so it hasn't been optimal
- agilefant
 - Matias: No complaints
 - Iiro: Still feels bit rigid
- team spirit
- sphinx
 - Matias: not used
- sharelatex
- google calendar
 - Matias: works fine
 - Iiro: Haven't used it much after we scheduled regular times
- github
 - Matias: works fine
 - Iiro: The usage still needs some working. There are some files that shouldn't have been pushed to the remote
- floobits
 - Matias: Hasn't used much
 - Iiro: Good for meetings
- Top 3 Tools Matias: not of use
- Worst 3 Tools

Improvement to teamwork

- people are away too often -Matias
- peer reviews should be distributed evenly throughout the sprint -Matias

- The pace is not always the best -Matias
- Pair programming needs to be streamlined -Iiro
- Let's have a team review of the whole project at the beginning of next sprint.
- Let's design all interfaces at the start of the sprint.

Feedback to the sprint leader:

- Matias: Works fine, synchronisation problems may occur, should read and understand the code before the next sprint
- Iiro: I don't really know what team leader did other than user guide

Implementation of improvements

- Team review in the beginning of January
- More whole team reviews of matters and changes
- Samuel tries to be less of a lead developer

Progress review

Notes:

- Product backlog updated in the previous session
- Check
- that the user stories follow some specified user story template
- Retrospective before project progress review? On wednesday?
- The coach appreciates trying new work practices and tools, and evaluating their usefulness in the Sprint retros.

The required artifacts:

- Product vision (see Template)
- Product backlog
- Sprint goals of the current and completed Sprints
- Sprint backlog of the current Sprint
- Definition of Done
- Test session charter(s) for peer testing (see Template)
- Allocated and spent effort per person per Sprint
- Process overview (see Template)
- Technical overview
- Progress report / Final report slides (see Template)

- Learning Diaries

Learning diary:

- The diary must contain a new entry with
 - 1) at least three educational observations related to the use of Scrum or other work methods
 - 2) a summary of one's main contributions to the project since the previous entry

The progress report slideset:

- project results
- realization of the 1) Sprint goals, 2) Product backlog items and 3) other results
- a script and screenshots of the software demo that the team will show in the review
- Project status
- evaluation of software quality
- spent and remaining effort per person per Sprint
- results of the Sprint Retros

12-03 300m Thurance

Participants: team (-Matias)

Agenda:

- 12:00 Finishing user stories, artifacts and report
- 14:00 Peer reviewing all work

12-04 120m Frifury

Participants: team

Agenda:

- 14:00 Practice presentation of progress report
- 15:00 Estimating story points for new BIs

12-04 120m Sprint 1 review & sprint 2 planning

Participants: team + PO + Coach

Agenda:

- 16:00 Presentation of progress report (35 minutes)
- 16:35 Feedback and questions (10 minutes)
- 17:00 Sprint planning
- 17:05 Sprint team leader's word
- 17:10 Discussing the budget and product backlog
- 17:20 Definition of the sprint backlog and goal
- 17:50 Committing to the sprint
- 18:00 Sprint 2 backlog refinement (team)

Presentation of progress report

- Intro -Joona & Samuel
- Results -Samuel & Joona
- Demo -Tuomo & Teemu
- Quality -Matias & Iiro
- Effort -Matias & Iiro
- Retros -Joona & Samuel

Demo

```
nerocli --status
nerocli --user "Samuel Marisa" "samuel.marisa@aalto.fi"
nerocli --cluster local localhost unmanaged
nerocli --cluster kosh kosh.aalto.fi unmanaged
vim ~/.neronet/clusters.yaml
vim ./test/experiments/sleep/config.yaml
nerocli --experiment ./test/experiments/sleep
nerocli --status
nerocli --submit sleep kosh
nerocli --status
```

Sprint planning

Sprint goal: *Develop a stable version for end user testing*

Stories with business value and story points:

- As a user, I want to set my preferences (name, email, default cluster): 5, 2

- As a user, I want my experiment config attributes to support generation of value combinations: 6, 1
- As a user, I want my experiment specifications to be able to inherit properties: 6, 2
- As a user, I want the program enable easy setup: 6, 4

Storyless tasks with effort estimate:

- Setup readthedocs documentation: 3h
- Sprint retrospective: 6h
- General discussion, planning and coordination: 20h
- Sprint planning: 10h
- Sprint review: 12h
- Asynchronous daemon system: 20h
- Developing a robust database system: 4h
- Full review of the previous increment: 12h

Decisions

- Team leader: Tuomo
- Scheduling Skype on 2015-12-21 10:00-12:00

12-16 180m Functional architecture

Participants: Samuel?

Agenda:

- Study functional architecture
- Plan the work
- Do the work

Modelling methods

- Use cases
- Domain model
- Functional architecture

12-21 30m Scheduling (team)

Participants: team (Skype)

Agenda:

- Choice of regular teamwork sessions during period III
- Discuss distribution of work and todo for first post-Christmas meeting

12-21 30m Scheduling (teamPO)

Participants: team + PO (Skype)

Agenda:

- Sprint change 2-3: 2016-01-13 19:00-20:00 (Skype)
- Sprint change 3-4: 2016-02-01 14:00-16:00
- Progress review 2 2016-02-29 - 2016-03-02
- Discussing user testing

12-28 360m Full review

Participants: team - Tuomo (came 1 hour late)

Agenda:

- Full review (code, backlog)
- Planning the refactoring work
- Planning the new user stories

Planning work

Iiro & Joona

- Goal: As a user, I want my experiment config attributes to support generation of value combinations: 6, 1
- Goal: As a user, I want my experiment specifications to be able to inherit properties: 6, 2
- Support for all status report variants (defined, submitted, enqueued, finished, terminated)
- Goal: As a user, I want to set my preferences (name, email, default cluster): 5, 2

Matias & Teemu

- Setup readthedocs documentation: <http://neronet.readthedocs.org/en/latest/>
- Goal: As a user, I want the program enable easy setup: 6, 4

Tuomo & Samuel

- Asynchronous daemon system (multimum & multikid support)
- Developing a robust database system

Could we use these?

- Minimum Viable Product
- The [MoSCoW method](#)
- Value Proposition Canvas
- <https://www.zenhub.io/>

01-06 360m Wedshop (team)

Participants: team -Teemu -Iiro

Agenda:

- Daily scrum 15min
- Developement 5h
- Integration 1h 45min

Daily scrum

Matias:

- Matias doesn't thinks working over skype does not work
- Doesn't have linux and cannot install it to his computer, making his testing harder.
- Starts to develop easy-to-use install

Samuel:

- Communicated with the team about this sprints developement
- Started to do daemon
- Didn't have time to finish daemon

- continues with daemon

Joona:

- Had skype with Iiro
- started to do experiment inheritance
- no linux so can't test well.
- limited Python knowledge
- continues with "set my preferences" and unit tests

Tuomo:

- Didn't do anything because there was no prerequisites were met
- got bored

Iiro and Teemu didn't attend.

01-08 Frifury

Participants: team -Iiro

Agenda:

- Daily scrum 15min
- Developement 5h
- Integration 1h 45min

Daily scrum

Samuel

- continued with daemon
- tries to get daemon communication working
- maybe not enough time, may need overtime

Teemu & Matias

- Worked with pypi
- No problems
- Continues with pypi and rewrites setup.py and writes readme

Joona - Started with neroman refactoring and fixing some problems - Starts to test submits - No problems

Tuomo

01-10 300m Sunfun (team)

Participants: Samuel, Iiro, Matias + (Skype: Tuomo, Teemu)

Scrum

- Tuomo: Fought with how to install PyQt. No idea how to proceed.
- Teemu: Worked on making it possible to pip install neronet. Worries about how the transfer of the software to clusters works after the pipification.
- Matias: Worked on the same stuff as Teemu. No idea how to proceed.
- Iiro: Finished inheritance in the experiment configs and the combinatorics feature. It is tested and ready for peer review. Some finishing work could still be done. Otherwise no plans.
- Samuel: Finished a basic daemon framework implementation and started to apply and test it with Nerokid. It should be finished along with doing the same for Neromum and Neroman.

01-13 360m Wedshop (team)

Participants: team

Agenda:

- Merging
- Integration
- CLI help/usage
- Neroman-mum SSH data transmission
- Peer review

Scrum

- Tuomo:
- Joona:
- Teemu:
- Matias:
- Iiro:
- Samuel:

01-13 60m Sprint change

Participants: team + PO

Agenda:

- 19:00 Progress review 2
- 19:05 Sprint review
- 19:30 Sprint planning
- 19:50 Sprint team leader's word
- 19:55 Committing to the sprint

Progress review 2: Pyry Skypen kautta, muuten kaikki fine

Sprint review

User stories:

- As a user, I want to set my preferences (name, email, default cluster), Joona
- As a user, I want my experiment config attributes to support generation of value combinations
- As a user, I want my experiment specifications to be able to inherit properties
- As a user, I want the program enable easy setup, Matias & Teemu

Sprint goal: *Develop a stable version for end user testing*

Sprint planning

User stories:

- As a user, I want to save important information about my clusters
- As a user, I want to group my clusters
- As a user, I want to delete obsolete versions of my experiments
- As a user, I want configurable criteria for experiment warnings and autotermination
- As a user, I want a status report so that I can get an overview.

Storyless tasks:

- Explore the possibilities and limitations of Qt and web based GUI solutions

- Finish asynchronous system update
- Revert to python 2.7
- Comprehensive system testing

Sprint goal: *Finish asynchronous system functionality and create a GUI mockup*

01-15 60m Frifury

Participants: team + Coach

Agenda:

- 13:00 General planning
- 13:15 Sprint 2 time logging, updating documents
- 13:30 CI brainstorming (JoTe)
- 14:00 Chat with coach (team + coach)
- 14:15 Retrospective (team + coach)
- 14:40 Planning work and reviewing daemon logic
- 15:10 Support for Python 2.7 (TuMaJo)
- 15:10 Finish asynchronous daemon logic (SaLiTe)

Sprint 2 Retrospective

Agenda:

- Visiting and updating the team's DoD
- Visiting and reviewing the commitments done in the last sprint retrospective
- Identifying things the team should start doing
- Identifying things the team should stop doing
- Identifying things the team should continue doing
- Listing actionable commitments (Actionable = has clear steps to completion and acceptance criteria. f.ex "Check in code at least twice per day: before lunch and before going home")

Visiting and updating the team's DoD

- Review and update DOD more often
- Moved system tests from BI level to sprint level
- Removed the percentage from system test coverage
- Implement automated functional tests
- Added specifics to guidelines (PEP8)

Visiting and reviewing the commitments done in the last sprint retrospective

- We managed to do some more team reviews of tricky stuff
- There was slight improvement in punctuality
- Not all planned improvements were deemed important

Identifying things the team should start doing

- Consider employing CI with Travis
- System test automation
- Iiro starts being early (and being a good team leader)

Identifying things the team should stop doing

- Let's try not to mix too many topics everywhere all the time

Identifying things the team should continue doing

- Periodic team reviews

Listing actionable commitments

(Actionable = has clear steps to completion and acceptance criteria. f.ex "Check in code at least twice per day: before lunch and before going home")

- Joona sets up and teaches CI with Travis
- Write automated system test and run them daily
- Iiro starts being early (and being a good team leader)
- More experiments and trials, less debating on whether to do what
- List items in sprint planning that should be worked on when time permits

Reversion work

- Use the future: <https://pypi.python.org/pypi/future>

01-20 360m Wedshop (team)

Participants: Team - Samuel

Agenda: - Work on user stories - Work on Daemon

01-22 300m Frifury (team)

Participants: Team - Joona

Agenda: - Update config parser - Work on Daemon

01-27 360m Wedshop (team)

Participants: Team

Agenda: - Work on Daemon

01-27 120m EES: Testing (TuJo)

01-29 300m Frifury (team)

Participants: Team

Agenda: - Work on Daemon

02-01 120m Sprint change 2

Participants: team + PO

Agenda:

- 14:00 Review
- 15:00 Planning

Review

Planning

- The sprint budget is 50h of pair time.
- User testing – continuous integration, ... – Implement improvements based on user feedback
- Use cases: categorizing numbers, some neural networks problems (MAKE examples)
- Testikäyttäjiä muualta! Simo, Aallosta muita, ehkä vielä joitain muita Finding and supporting test users.
- Miten Neronetin tulevaisuus? Kuka käyttää ja kehittää sitä (markkinointi), voisiko liittää johonkin Aallon kurssiin?

- Linkki short guidiin Readthedocsiin ja git hub front pageen – General appearance, marketability and clarity improvement.
- Perustetaan Neronet Google Group ja autetaan ihmisiä siellä. Ekassa vaiheessa face-to-face demoja ja avustettua koittamista, Toisessa vaiheessa markkoinnoidaan netissä.

Sprint goal: *Publish Neronet as an open source project*

02-03 Sprint 3 retrospective

Visiting and reviewing the commitments done in the last sprint retrospective

- CI not set up
- Automated tests not done
- More experiments and trials, less debating on whether to do what. Somewhat successful

Identifying things the team should start doing

- Consider employing CI with Travis, Joona
- System test automation, Joona
- Following the hours spent by all the developers and properly adjusting them

Identifying things the team should continue doing

- Hold daily scrums only when some of the developers feel the need for them

02-05 300m Frifury

Participants: Samuel, Matias

Agenda: - Sprint planning with (Samuel, Matias)

Sprint planning

- Improve code documentation and commenting
- General appearance, marketability and clarity improvement
- Triton support (Consult Pyry with inclusion to backlog)
- Google “Neronet” group for marketing and user support

- Gather test users: Pyry, Jelena, Simo, Triton users
- Extend and improve the documentation in the technical overview
- Embed/append mainenance instructions to the technical overview
- Continuous integration
- Improvements based on user feedback
- Advert in Reddit
- Use cases: categorizing numbers, some neural networks problems
- Future of Neronet?
- Basic Neronet via GUI
- Visualize variable changes
- Automated testing

Daily scrum

- Teemu and Matias tried to test Neronet with a Theano example script; Now they are to continue creating a few use cases
- Iiro did planning work related to the variable visualization story; He will continue the work today.
- Samuel did some overall sprint planning and will now try to work on adding Slurm support

Message to Pyry

@Pyry Puhuttiin teamin kanssa mahdollisista testikäyttäjistä ja huomasimme, että Neronetin yhteensopivuus tritonin kanssa olisi tärkeää. Ajattelimme, että voisimme siksi ottaa Triton yhteensopivuus user storyn tähän sprinttiin. Mitä mieltä olet tästä?

Lisäksi kävisikö, että käymme läpi sinun userfeedbackkiä keskiviikkona, ehkä mahdollinen skypekeskustelu niiden läpikäymiseen?

02-10 300m Wedshop

Participants: Samuel, Matias

Agenda: - Daily scrum - Development

Daily scrum

Joona: studied Travis; will set it up. Tuomo: has been sick; going to work on GUI display of configs Matias: fixing bugs; going to work on the cases Teemu: same thing Samuel: developed a Cluster class, worked on Slurm support; going to continue

02-12 300m Frifury

Participants: Samuel, Matias

Agenda: - Daily scrum

Daily scrum

- Tuomo: Works on the GUI and image display
- Matias: Explored the Slurm related code, added an example experiment to the user guide; Not sure what to do next
- Teemu: Worked on the config file sync logic; Not sure what to do next

Things to deal with: - Tuomo's work (rendering plots) - How to proceed with Teemu & Matias

02-29 60m Progress review 2

Participants: team + PO + Coach

Agenda:

- 13:00 Presentation of progress report (35 minutes)
- 13:35 Feedback and questions (10 minute)

03-02 360m Wedshop

Participants: team

Agenda: - 13:00 Development - 14:30 Task division - 15:00 Development - 16:50 Daily scrum - 17:10 Retrospective of progress review - 17:30 Review of artifacts - 18:20 Review of evaluation criteria - 18:30 Review of competitors' material

Daily scrum

Teemu: - Made documentation better - Dominated the team - No problems - Continue

Tuomo: - Finished two user stories: As a user I want a big table and As a user I want to filter - No problems - Will start to filter

Matias: - Tried to study something - No problems - Continue

Samuel: - Reviewed course schedule and evaluation criteria - Optimized the project schedule (must be discussed on Friday) - Updated process overview - Wants to have a team review of the evaluation criteria and all the artifacts

Joona: - Updated the user manual - No problems - Will start doing something

Iiro: Not present

Feelings of the project review

- We felt that the coach and PO were very satisfied but the instructor was less so.

Challenges - working efficiency - user testing

Todo - Everyone must check that the CI build passes everytime they push!

Artifacts review

We reviewed the progress report, the process overview, and the definition of done.

Review of evaluation criteria

We're gonna get 5 for sure.

Review of competitors' material

We need to make more diagrams and stuff to make our presentations more impressive. Otherwise we're the best.

Sprint 4 retrospective

Visiting and updating the team's DoD: No updates, after the last update the result was good

Visiting and reviewing the commitments done in the last sprint retrospective

- Employed CI with Travis
- Continued holding daily scrums when necessary

Identifying things the team should start doing

- Improving unit tests
- Report hours done to agilefant after each session
- Work more in the same room to improve communication

Identifying things the team should continue doing

- Continue improving testing and continuous integration

Listing actionable commitments

- Everybody starts marking the hours spent after each session
- Joona continues writing tests to be used with travis CI

03-04 45m Sprint planning part 2

Participants: team + PO

Agenda: - 17:15 Agenda - 17:20 BLIs - 17:30 Collaboration - 17:40 Sprint goal

Budget

19sp

22 h / person

BLIs

Collaboration

- Make simple support for collaboration
- Add explanations of how to fix problem situation.

Sprint goal

Finish Neronet 1.0

03-09 360m Wedshop

Participants: team

Agenda: - 13:00 Development - 18:25 Agenda - 18:35 Daily scrum - 18:50 Discussions

Daily scrum

- Joona: Finished cancel experiments, but will work on error handling; No problems.
- Tuomo: Has done some minor finishing with the GUI; Is waiting for a peer review and comments from the PO
- Matias: Has almost finished the resource information story; No problems.
- Samuel: Has pondered about the rest of the project while writing the diary. Has been very busy with other work.
- Teemu: Is proud of his learning diary; Worked on the cluster status functionality. Has difficulty guessing what would the user want to have.
- Iiro: absent

03-11 300m Frifury

Participants: team

Agenda:

- 13:00 Development
- 16:45 Daily scrum
- 17:00 Peer team testing

Daily scrum

- Matias: Worked on cluster status report, CPU load based choice of node. Is going to fix some tests. Does not know what to do next.
- Joona: Manual experiment cancellation is ready, tests are updated. Thinks about starting the collaborative story but does not have any idea how.
- Iiro: has continued developing the plot feature user experience. Would like us to have some issue tracking system in place.
- Samuel: has been interviewed by Varvana concerning our architecture. Is going to help consult everyone about their work
- Tuomo: Continued developing the GUI: added coloring; disagrees with the PO about how plots should be accessed.
- Teemu: Has worked on his story but is unsure of what the PO wants. Is going to contact him.

Peer team testing

- It would be nice to have them test our work related to the current stories.
- However, we need time to correct any bugs
- Let's propose the next Friday and the one after

Load average info

Information - Total share of CPU idling - RAM use ratio - Disk space ratio

Potential info source: `top -n 1|head -n4`

03-18 300m Frifury

Participants: team

Agenda:

- Peer testing

Peer testing

During peer team testing we identified the following bugs/improvement areas:

- iss010 Error handling when defining or submitting to invalid clusters.
- iss011 Color coding bug
- iss012 Think about what is interesting enough to take space in the GUI
- iss013 Fetch should happen automatically when changes are made
- iss014 Submit and other core buttons/stuff should be highlighted
- iss015 More feedback from the CLI and GUI (when deleting is successful etc, experiment successfully defined)
- iss016 Submit could also define the experiment given a experiment folder
- iss017 Sending multiple experiments via CLI
- iss018 Nerocli should print help commands given no other parameters
- iss019 Cluster help is inadequate
- iss020 Status label to GUI
- iss021 Handling status reports after the size of the table increases (so that the status report isnt 100+ lines)
- iss022 Submitting an experiment multiple times causes stdlog to do something
- iss023 GUI change highlight color
- iss024 GUI accepts empty fields
- iss025 GUI move errors to GUI
- iss026 Hide experiments by rightclicking label
- iss027 Hide params by right clicking labels
- iss028 Highlight all if name is clicked, else cell
- iss029 Experiment file must be on the experiment folder
- iss030 Better distinction between fixed parameters and user defined parameters

- iss031 Experiment command is confusing maybe “add experiment instead” also for clusters
- iss032 Load explanation
- iss033 Making a cluster with a same name
- iss034 Better explanation what experiment id is (same for clusters) perhaps exp name instead
- iss035 Where to see that data after fetching

03-30 75m Sprint change 5

Participants: team + PO (Skype)

Agenda:

- Agenda
- Results
- Demo
- Planning

Results

Slideshow

Demo

Live demo

Planning

Sprint goal: Grab the quality award

High priority tasks:

- General debugging, stress management and error handling MATIAS
- Updating user guide, manual and documentation JOONA

Lower priority tasks:

- Add experiment from GUI TUOMO
- Disk space to the node resource info TEEMU
- Export info from Agilefant to the repo SAMUEL
- Prepare and practice the progress 3 review, ie. project review JOONA

- Prepare a screencapture video for the review and to complement user guide/marketing SAMUEL
- Allow plot combination (a variable from multiple exps to the same plot) IIRO
- Switch rsync to scp for file transfer IIRO

04-01 300m Frifury

Participants: team

Agenda:

- Individual work
- Sprint 5 retrospective

Sprint 5 retrospective

Agenda:

- Visiting and updating the team's DoD
- Visiting and reviewing the commitments done in the last sprint retrospective
- Identifying things the team should start doing
- Identifying things the team should stop doing
- Identifying things the team should continue doing
- Listing actionable commitments (Actionable = has clear steps to completion and acceptance criteria. f.ex "Check in code at least twice per day: before lunch and before going home")

Visiting and updating the team's DoD

- Added Google Python Syntax to code style criteria
- Acknowledged that the DoD for BI level is good, but our performance in fulfilling it could be better
- Relaxed the system testing requirement to make it less of a pain; the changes were made to make achieving the quality criteria more realistic

Visiting and reviewing the commitments done in the last sprint retrospective

- We have worked on improving unit tests
- We have improved in reporting hours to agilefant after each session
- We have not been able to increase the amount of weekly face-to-face time
- We have continued improving testing and continuous integration

Post project thoughts

- The development would have been more effective if Matias and Joona would have had Linux laptops. Also Teemu had to use Samuel's legacy laptop.
- Tuomo thinks the availability of refreshments would have increased efficacy
- Matias proposed that we could have had implemented a scheme where people arriving late would have to compensate by offering others refreshments or pizza.
- Teemu thinks that the planning and implementation of pair work practices could have been better. We started to work independently after sprint 3 without much discussions.
- Samuel thinks the project was very long, tiring and difficult. Distribution of work was very difficult in the very beginning when people had little understanding of the domain. Getting various DoD practices applied required a lot of effort. Later only the most essential practices were followed.

04-09 180m Satsurge

Participants: Samuel, Joona, Tuomo, Iiro

Agenda:

- Refactoring
- Competitor review
- Finishing & presentation

Competitor review

We need

- More graphics
- Start with customer problems before solution
- Summarize retros
- Burn down charts!
- Team member faces!
- 10 slides of demo
- technical architecture / overview

Remarks - Sievo's project seemed too straightforward - Avoin had few successful sprints - F-Secure had professional support

04-09 180m Sunsurge

Participants: Samuel, Tuomo, Joonas, Matias

Agenda:

- Team photos
- Finishing & presentation