Onboarding and knowledge sharing

Fabien Coronis
Marco Leorato

Software group

Main topics

- The onboarding procedure
  - Old procedure
  - New procedure
  - Challenges

- Knowledge sharing
  - Tools
  - Issue and solutions

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Onboarding

1. Process recently changed
2. Old procedure was unclear and up to the situation
3. Tentative in standardization and simplification of the process
4. Hope in a more homogenous way of work

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Old onboarding

- No real organization
- Lack of clear instructions or any real procedure
- Ideally the new hire would shadow a senior colleague during work

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Onboarding heavily depend on the person. Often the person helping with onboarding lacks information in particular about administrative task that happens only once when someone start working. Also a general lack of knowledge outside their own field of knowledge.

Old onboarding

Shortcomings

- No clear plan
- No consistency between different onboardings
- Often misses or forgets about some necessary tasks
- Is left alone in some administrative tasks
- Lack of knowledge in some areas
- Heavily dependent on workload

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No clear plan
No progressive thread
No end goals
No guarantee of covering the actually interesting topics
Depending on the senior being shadowed topics covered are wildly different
In addition, sometime, there is no time reserved for this and the person that should
help ends up being too busy to be able to do it.

New onboarding procedure

For senior staff

- Clearly defined list of task
- Help the new hire on all the different work aspects
- Also cover administrative tasks
- Following the list generally cover all the important steps

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Pre-arrival checklists, one for manager and one for mentor
Safety test MAX IV
Links with HR onboarding and Lund University welcome

New onboarding procedure

For new colleague

- Step to step introduction list
- Features the "things to know"
- Has some introduction task ready
- Learn the standard dev workflow

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Tasks for new colleague
Write Tango device server in Python
GitLab workflow including merge request and code review
Ansible deployment
KITS lab

Challenges

Preparing the procedure:
- Collect and list all the needed tasks
- Split tasks by responsibility between mentor and group manager

Executing it:
- Reserve the proper time to follow the new hire
- Follow a somewhat tight schedule
- Avoid to overload the new hire on the first days
- Describe tasks that can be done while leaving some unclarities

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Knowledge

- **Acquiring**
- **Sharing**
- **Retaining**

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Written documentation sources

- Wiki
- Readmes
- Documentation websites
- Cable database
- Standalone documents
- Excel files
- Logbook
- Cloud services
- …

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The obvious one: written documentation.

Wiki shared with whole MAX IV.
Readme in git repositories.
Static site generators like Sphinx-Doc (markdown), in git repositories.
Cable database.
Naming convention in PDF file distributed by email.
Hardware lists in Excel files.
Electronic logbook in Elogy.
Cloud services: Sharepoint, Box, Dropbox.

Shortcomings

Too many sources

- Where to write?
- Where to search?

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No single documentation system satisfies everyone.
Devs are comfortable with git and SSG.
Non-devs will prefer things like Sharepoint and Wikis.

So many documentation, which one should I look into?
We do not have a search engine for all these sources.

Where do we place vendor documentation (User guide of devices)?

Shortcomings

Quality

- Incremental info
- Outdated info

Some documentation is only incremental (it only documents changes compared to what it was before, for example Elogy).
If you do not know how it was before, or if you do not have enough background knowledge the info is useless.

PyTango doc is good but relies on knowledge of cpptango.

Who is in charge of checking the documentation quality?
Who is in charge of keeping things up to date?
Do we delete old pages?

12

Talking to colleagues

Asking questions

Essential during onboarding

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The other obvious one: talking to colleagues.

Asking questions.
A lot of knowledgeable people.
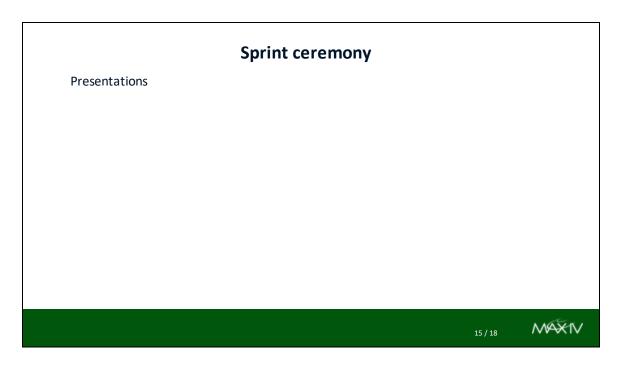Passionate. Sometimes hard to make them stop talking.
Especially if ranting.
But rants also uncover some knowledge, for example what not to do.

Standup meeting AOBs

Any other business

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Stand up meeting, we have AOBs any other business at the end.

Software team only.
Small groups, short topics.

It is rare that we have a day without at least one AOB.
Sometimes 3 4.
Not mandatory.

14

Sprint ceremony

Presentations

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At the sprint ceremonies, every 2 weeks, we have opportunity to present something.

Software team only.

Latest example: web security

KITS Café

From software group towards MAX IV

Topics
- Basic control system training
- Data management seminar
- Conda
- PyTango

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Collaborations

Open source contributions

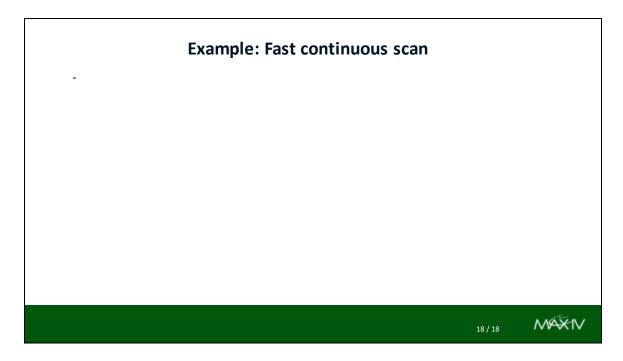Conferences

Papers and posters

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Maybe the most important one?

Code collaborations (PyTango, Taranta, Sardana, MXCuBE, ISPyB, SciCat, etc.)
Open source contributions. Benjamin, Anton, Yimeng.
Know the latest, ready to migrate when there is new release.

Going to conferences.

Writing papers and making posters.

Example: Fast continuous scan

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Max IV was the first 4th generation light source.
Higher flux: photons/second.
Usually time-wise the bottle neck is scanning.
At MAX IV bottleneck is moving motors between scan.
New techniques in Sardana, usage of PandaBox for triggers.
Other facilities come to MAX IV to learn about this.
Ask about PandaBox, are now about to buy PandaBoxes.

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