Use case 2.36: Reduction of MeerKAT interferometric data in PUNCH4NFDI

Status update

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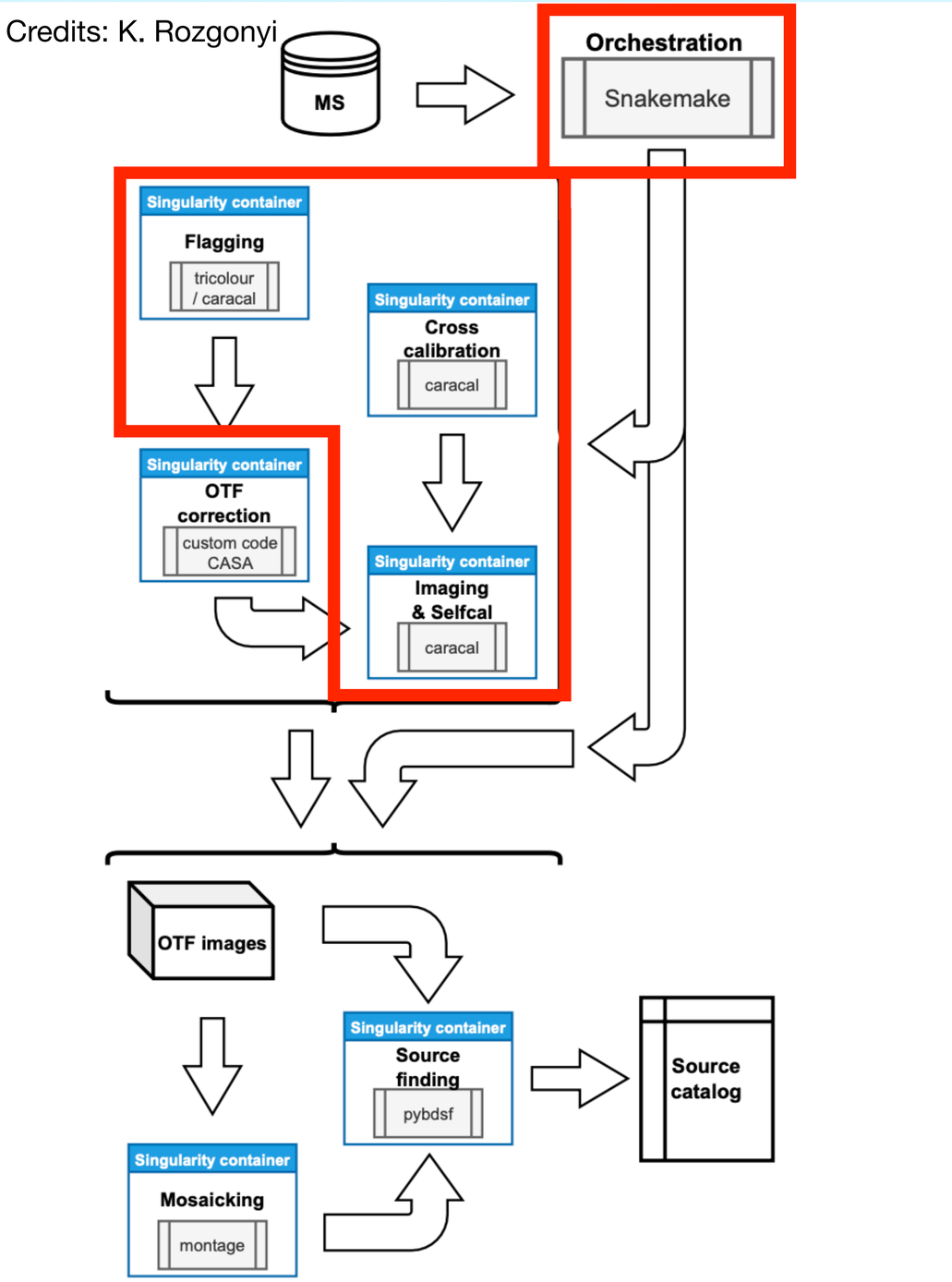
Previously
on this use case…

Goal: test PUNCH infrastructure and TA synergy with a test run of a pipeline to reduce radio data.

Current challenges:

- Orchestration: need to set up REANA workflow.
- Flagging, Cross-calibration, and Imaging: need to solve problems with Caracal container.
- Caracal needs user information when running.
- Container in container solution needs to be improved as it is currently burdensome.
- General: absence of shared file system.

Credits: K. Rozgonyi

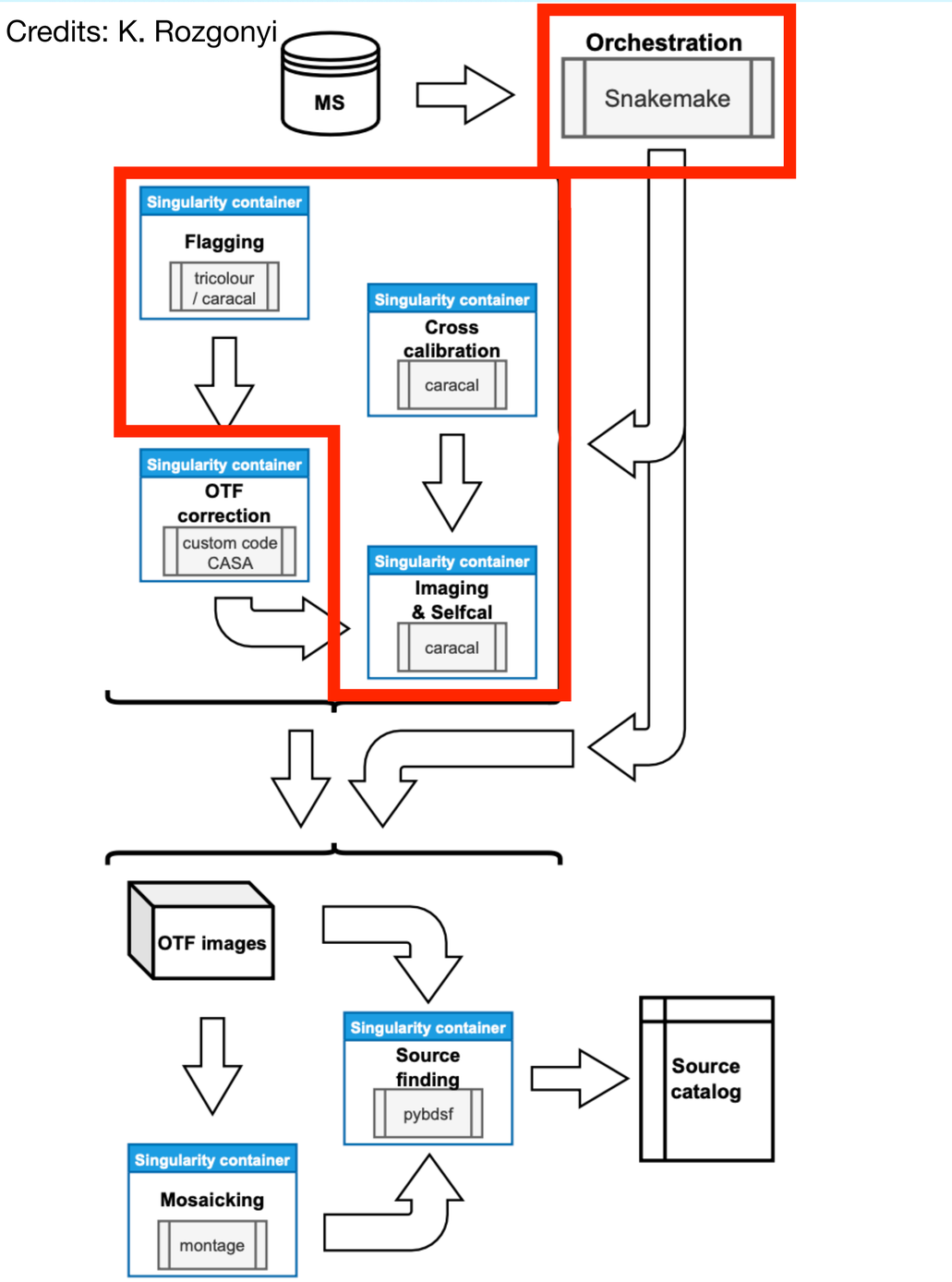


Currently
on this use case…

Current achievements:

- Orchestration: obtained access to AIP REANA instance. Ready to test.
- Flagging, Cross-calibration, and Imaging: testing solutions to Caracal problems.
- Set up of environmental variables related to user so to pass fake user information to Caracal. Works!
- New version of Caracal that does not require user information under certain circumstances. Works!
- New version of Caracal that is able to use stimela cabs stored in CVMFS/unpacked. No need to provide Caracal with a folder of pre-pulled stimela cabs. Testing!

Credits: K. Rozgonyi

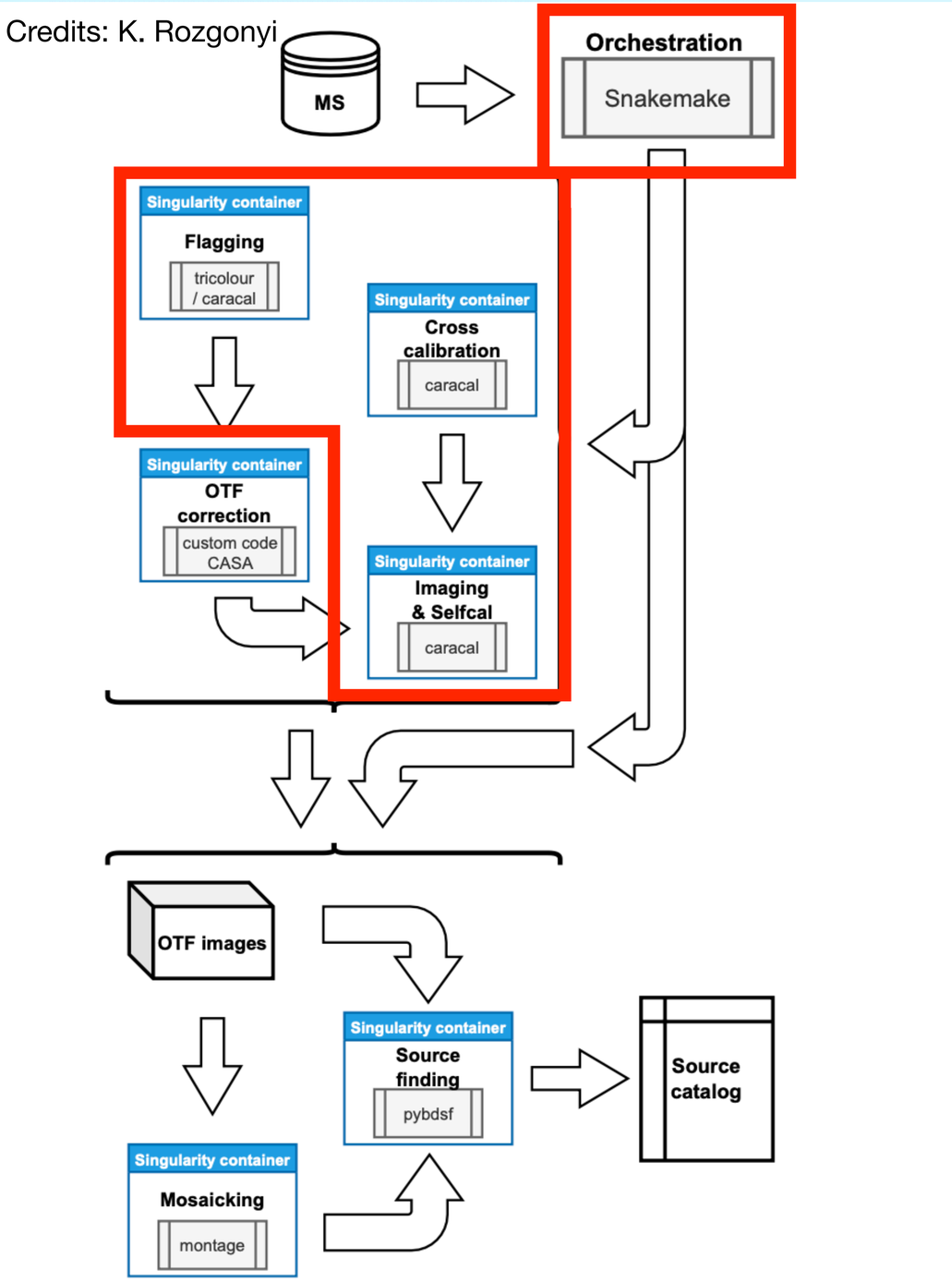


Currently
on this use case…

Current achievements:

- General: LMU cluster integrated in Compute4PUNCH.
- Can submit jobs to Compute4PUNCH from LMU cluster which will be executed on LMU cluster.
- Not open to the rest of PUNCH4NFDI for the moment (test instance).
- Presence of shared file system. Ready for test jobs.
- Full pipeline ready to be tested on C4P/LMU.

Credits: K. Rozgonyi



Next steps and useful information

- Will test job submission and portions of the pipeline in C4P through LMU cluster.
- Need to start workin on REANA test workflow to learn how it works.
- There is a Mattermost channel where you can keep track of the work done: https://mattermost-p4n.aip.de/test/channels/use-case-236-radio-data-reduction
- It has a board, which lists ongoing, future and completed tasks (thanks Manuel Gieffels).