TOMWER

TOMography Workflow EsRf

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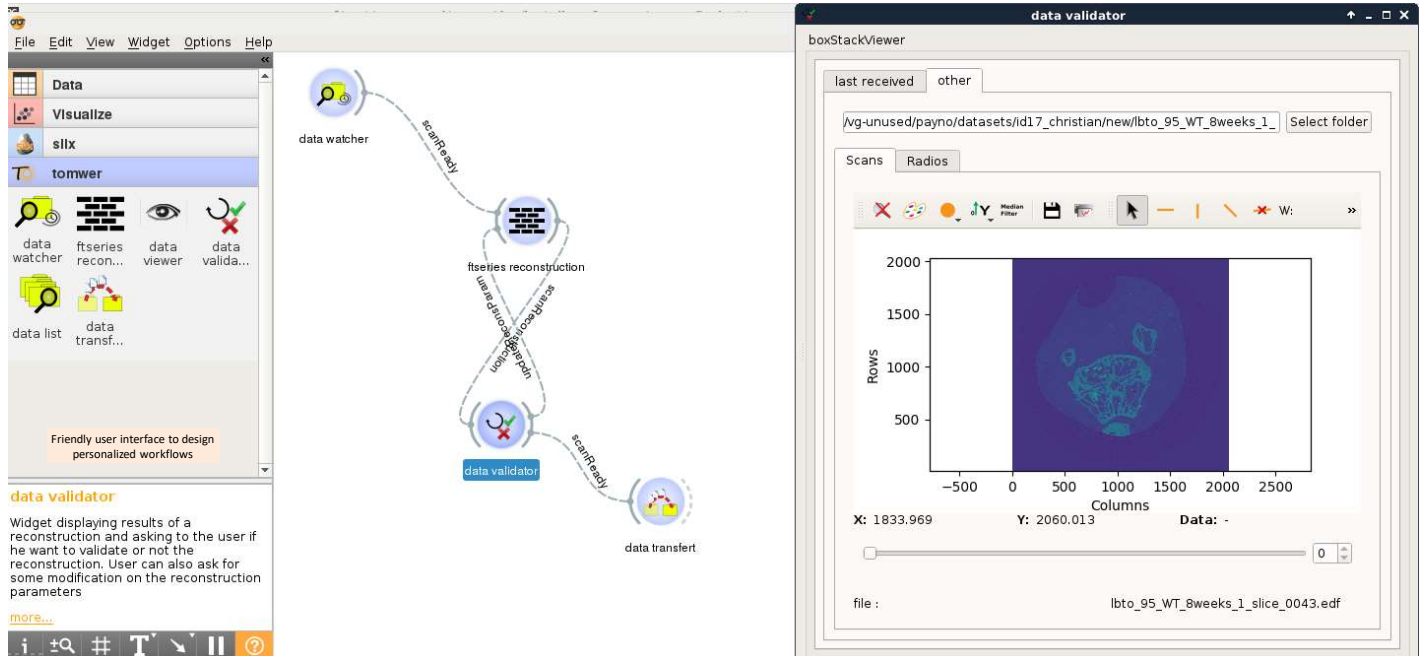
A library offering tools to automate acquisition and reconstruction process for Tomography

- Break down data treatment into atomic operations that can be associated
- Orange3 add-on: user friendly canvas, check input and output of each tool, existing widgets.
  - Official: https://github.com/biolab/orange3
  - Fork used for tomwer: https://github.com/payno/orange3
- silx (plot, core functions)
  - https://github.com/silx-kit/silx
- Octave fastomo3 script for reconstruction
- Documentation : http://www.edna-site.org/pub/doc/tomwer/dev/
- License: MIT
- Python > 3.4

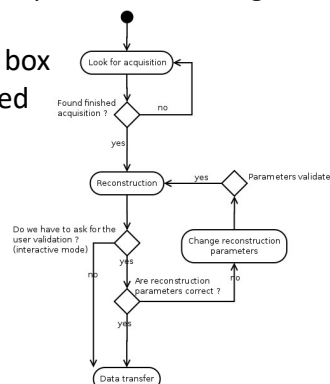*Tomwer GUI – setup example*

Set of tools:

- ➢ Data watcher : detect finished acquisition and data ready to be reconstructed.
- ➢ Ftseries reconstruction : launch reconstruction of the acquisition according to user input
- ➢ Data viewer : acquisition and reconstruction viewer
- ➢ Data validator : validate a dataset to move to the next box
- ➢ Data list : allow user to define a list of scan to be treated
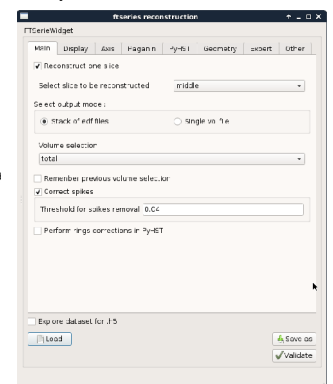- ➢ Data transfer : transfer dataset from local buffers

Status

- Release 0.1 in September 2017
- Tested on ESRF Tomography beamlines
- Set of unit test to secure development

Perspectives

- Adapt current tools for Holotomography and Nano-imaging
- Deal with scan series and existing post-processing.
- Add more feature

Flow diagram of the setup example

Ftseries GUI

Monitor workflow status by means of a *graylog* interface (www.graylog.org)