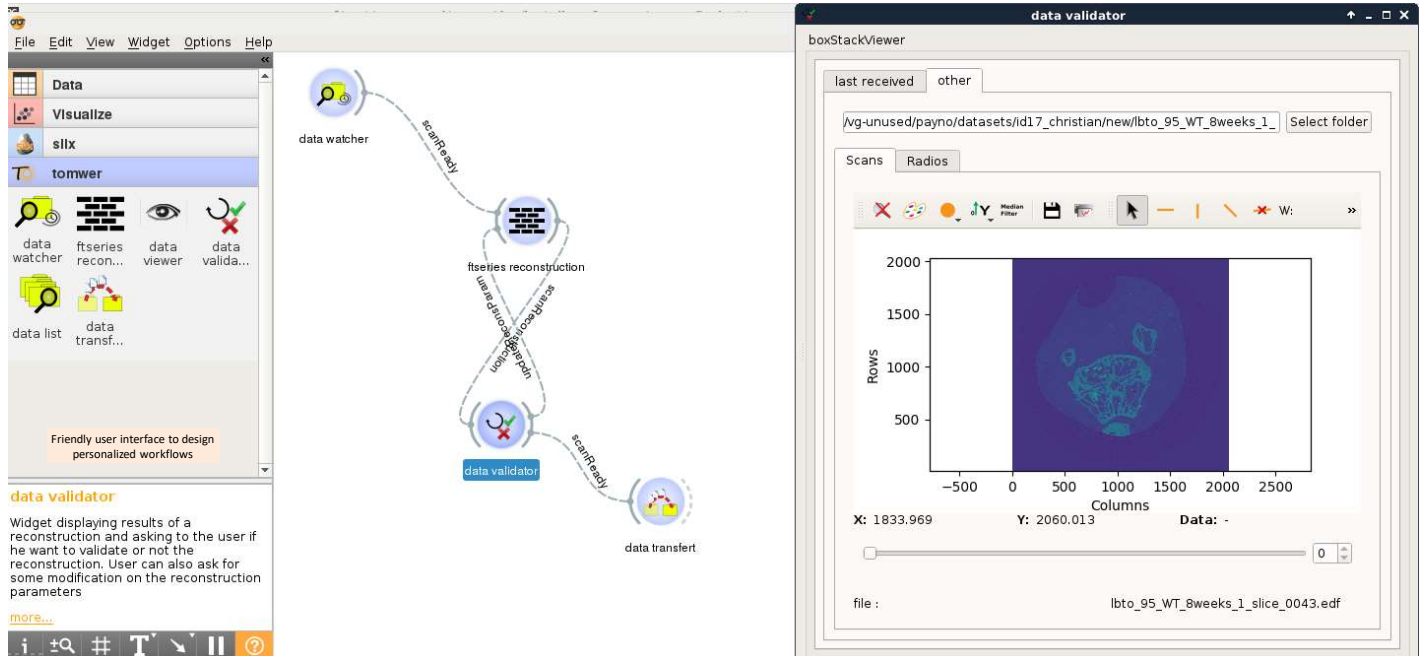


A library offering tools to automate acquisition and reconstruction process for Tomography

- 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

The screenshot shows the Tomwer GUI interface. On the left, there is a sidebar with various tool categories: Data, Visualize, silx, and tomwer. The main canvas displays a workflow with widgets like 'data watcher', 'scanReady', 'ftseries reconstruction', 'data viewer', 'data validator', and 'data transfert'. A 'data validator' window is open on the right, showing a plot of a reconstructed slice with axes 'ROWS' (0 to 2000) and 'Columns' (-500 to 2500). The plot shows a central region with some artifacts. Below the plot, there are fields for 'X: 1833.969', 'Y: 2060.013', and 'Data: -'. A file path is shown at the bottom: 'file: lbto_95_WT_8weeks_1_slice_0043.edf'.

Tomwer GUI – setup example

Set of tools:

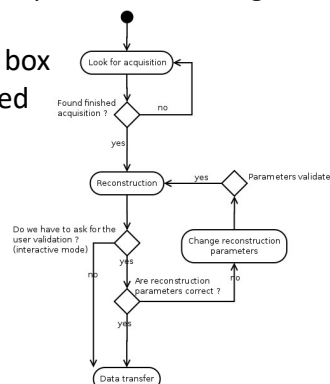
- Data watcher : detect finished acquisition and data ready to be reconstructed.
- Ftseries reconstruction : launch reconstruction of the acquisition according to user input
- Data viewer : acquisition and reconstruction viewer
- Data validator : validate a dataset to move to the next box
- Data list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

Status

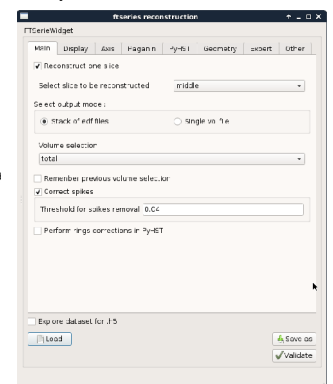
- Release 0.1 in September 2017
- Tested on ESRF Tomography beamlines
- Set of unit test to secure development

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)