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Supporting information for article:

***TomopyUI*: a user-friendly tool for rapid tomography alignment and reconstruction**

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Supplemental Information to TomoPyUI: a User-friendly Tool for Rapid Tomography Alignment and Reconstruction

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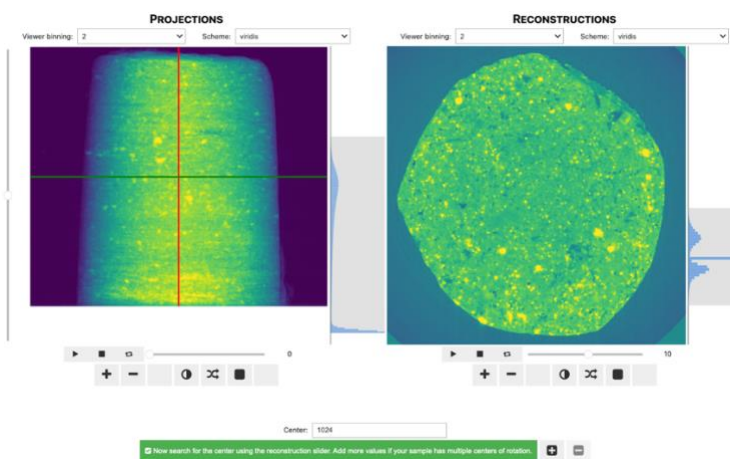
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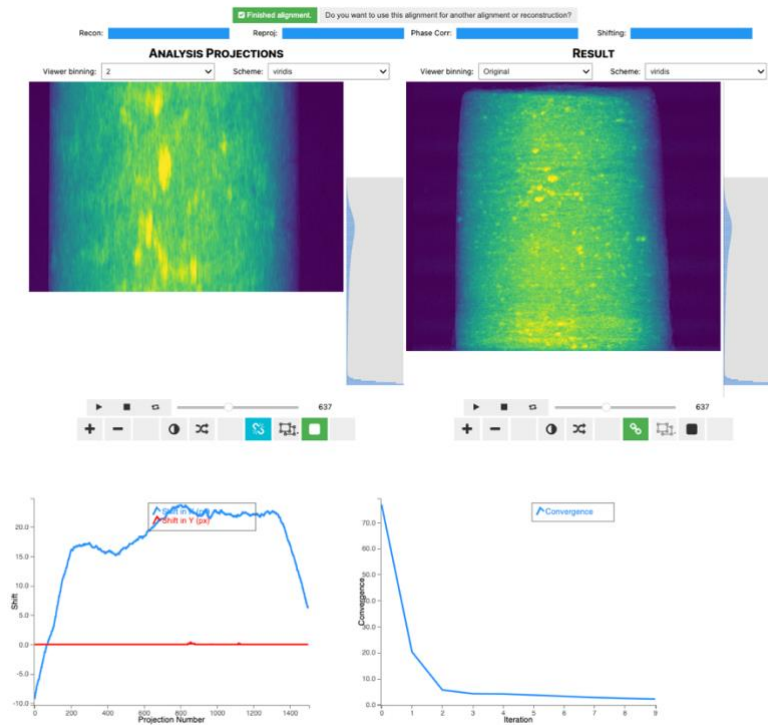
Handling larger datasets

TomoPyUI is able to handle the import and processing of large datasets. For an example of this, we have imported the tomo_00001 (from the round-robin datasets) from tomobank¹ into *TomoPyUI* using the APS_32ID importer on [this GitHub pull request](#). This dataset, approximately 11 GB in size, comprises around 1500 projections with dimensions of 1792 x 2048 pixels.

In **Supplemental Figure 1**, we show that importing the data and finding its center of rotation is possible within *TomoPyUI*. In **Supplemental Figure 2**, we show that this data can be used for alignment. Here we have used performed 10 iterations of the joint alignment/reconstruction algorithm using the SIRT3D *Astra* algorithm on a subset of the full dataset (8x binning, pixel range shown in “Analysis Projections”).



Supplemental Figure 1. Identification of the center of rotation within *TomoPyUI* for the tomo_00001 dataset from TomoBank.



Supplemental Figure 2. Alignment of the tomo_00001 dataset after conducting 10 iterations of the joint alignment/reconstruction method using the SIRT3D algorithm from Astra on a downsampled subset (8x binning). The "Analysis Projections" details the pixel range involved in the alignment, showcasing *TomoPyUI*'s capability to use only a fraction of the full dataset for alignment.