TWMPI

First steps in OctoView

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1. Cabling and software installation

a. Please follow the cabling instruction provided with your device.
b. Install Octoview software via Setup_Octoview.exe. You can download the installation file from here.
c. Please follow the installation steps. Keep in mind that an additional Matlab (Mathworks) environment has to be installed.

2. Quick start – ***11 clicks to the first image***

New technologies and also new scanners can be interesting and powerful tools. Nevertheless, the entry to new technologies can be often annoying since the complexity of such systems can be quite high. For that, we prepared a simple step-by-step tutorial to provide a rapid experience of success for the user.

Before we start with the software part, please make sure that the following checklist is ticked off:

- Unbox your scanner and follow the instruction for cabling your scanner

- Install all required software packages and drivers
  - Matlab runtime and OpenMatlab for all drivers

- Install this software package
  - Unzip the archive

Lets start:

- *Optional (*): Click 0: Start the server from Matlab or the provided executable (MPI_server.exe)*
- Click 1: Start this software, e.g., via "**PD OctoView**" icon on your desktop
- Clicks 2-4: Select "LAST project" and your scanner, e.g., TWMPI_Nr4
- Click 5: start client for server connection via TCPIP (wait until hardware is ready)
- Clicks 6-7: select sequence and reco type
  ATTENTION: make sure that **pipeline1** is set as source (**src**)
- Click 8: Set up the gradient by pressing "set gradient" in the scanner control bar, e.g. 1 T/m
- Click 9: Perform Active Feedthrough correction (AFC) by pressing the "AFC" button
- Click 10: Remove all samples from the scanner and press the "BLC" button
- Click 11: Place a sample in the scanner and press "single run" in the scanner control bar

Figure 2-1: Overview about the clicking order.

*(*) The **autostart** function for the MPI_server.exe can be set in the config file (see in section **Fehler! Verweisquelle konnte nicht gefunden werden.**).*

When everything worked fine, the result should look like this: for a point-like sample, the 3D visualization shows the 3D rendering in the center of the field of view (FOV) of the scanner. The raw-image shows the 2D projection, the reconstruction-preview is a 2D representation of the 3D rendering. Furthermore, the input signal can be investigated, here showing the higher harmonics in the spectral visualization.

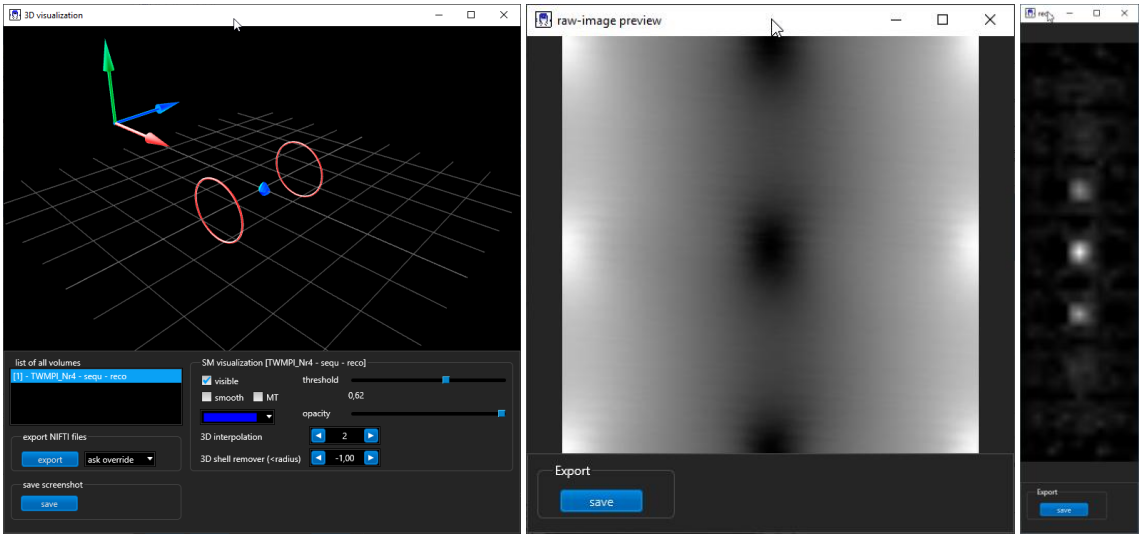

Figure 2-2: 3D preview (left), raw-image (middle) and reco-preview (right) of a point-like sample.

Figure 2-3: Overview about the signal spectrum in the reconstruction tab.

Quick Start **without** real hardware – *6 clicks to the first image*

When no real scanner is available, then you can use some preliminary stored data from a point-like sample.

- Click 1: Start this software, e.g., via "**-- Start OctoView**"

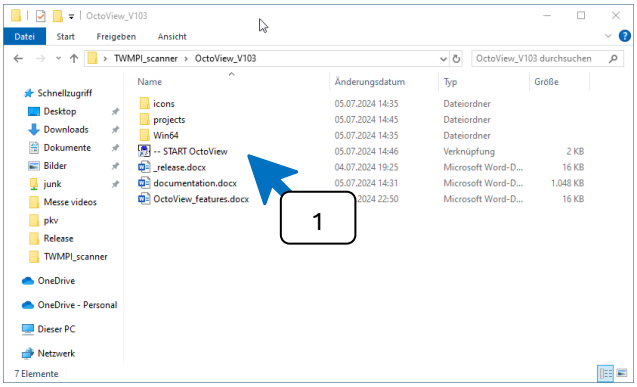

Figure 2-4: Explorer screenshot of the OctoView folder structure.

- Clicks 2-4: Select the scanner TWMPI_Nr4
- Clicks 5-6: select sequence and reco type
  ATTENTION: make sure that **data** is set as source (**src**)

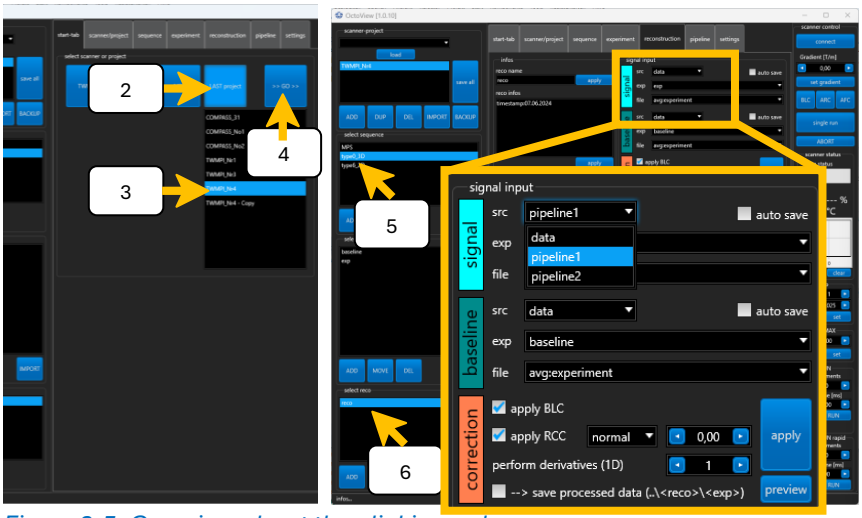

Figure 2-5: Overview about the clicking order.

In the end, the same results as indicated above should be visible (see Figure 2-2).