Labview Software

1. Install labview and the NI Vision Module
2. Place the labview libraries (.llb) files in the OPT build folder on your Desktop
3. Extract the .zip files in OPT build and place on your Desktop
4. Install all the labview drivers for QCam, SMC100, and Optem. If they did not come with the hardware, they are in the OPT build folder
5. Place the OPT Scanner 2.2.vi on your Desktop.
6. Run the OPT Scanner 2.2.vi. It should automatically locate all the library files that you placed on your desktop
7. OPT Scanner 3.0.vi incorporates the camera trigger. We advise that version 2.2 be used first.

Matlab Software

There are two main Matlab Functions.

Calibration 🡪 calibrationfinal.m,

Post processing 🡪postOPTfinal.m

All the functions in the Matlab Functions folder must be in the current directory of your Matlab instance.

To make an executable file, like the one in the provided manual, type

“mcc –mv postOPTfinal.m”. This will create a command prompt executable in your current Matlab directory that can be used on its own to post process the raw files from the labview software.

Software Manual

A starter’s manual is provided in the “Manual” folder along with a .pdf on how to prepare samples for imaging.

Custom Hardware

3D designs are available via .stp files in the Custom Hardware folder. These can be opened with most CAD programs. All other custom hardware listed in the manuscript are simple height spacers that should not need explicit instructions on how to build.

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