PREPROCESS_MULTFIB MATLAB App README

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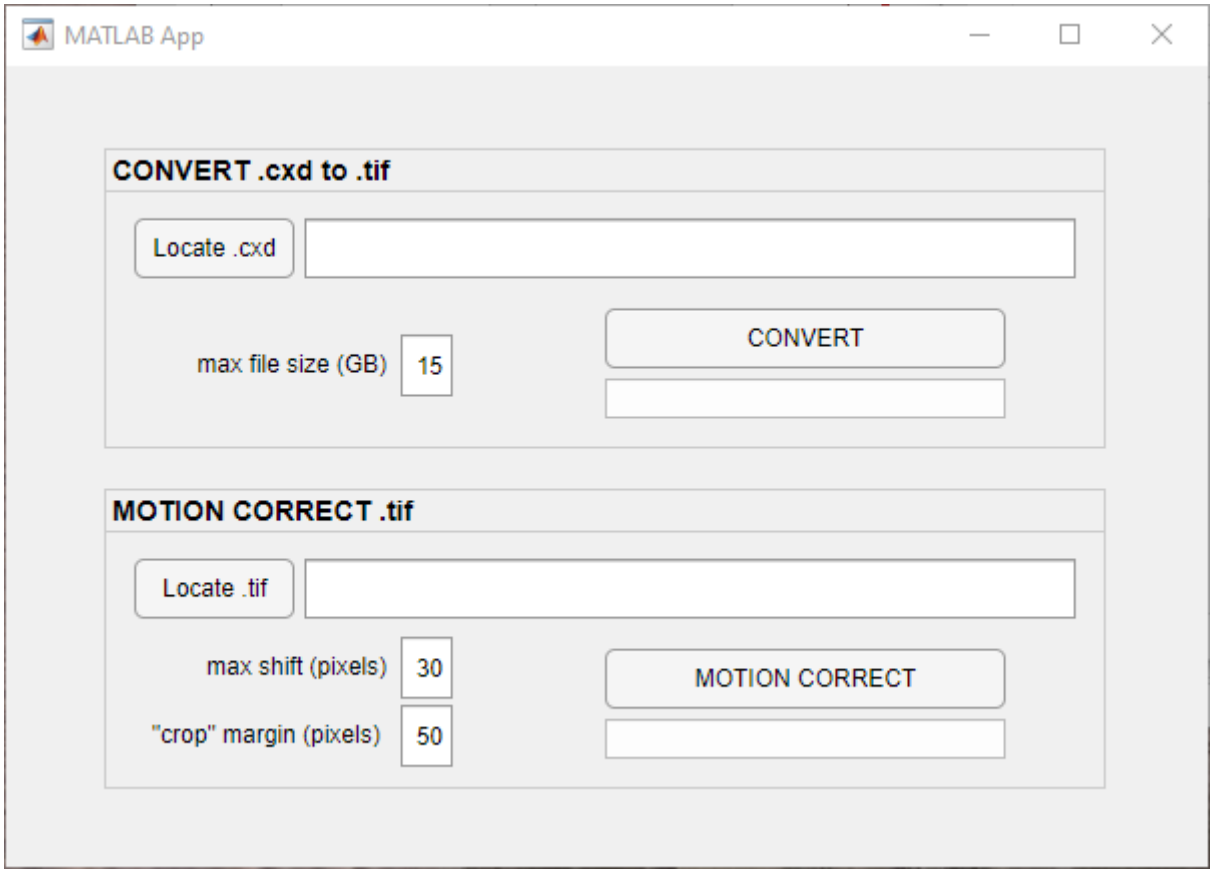
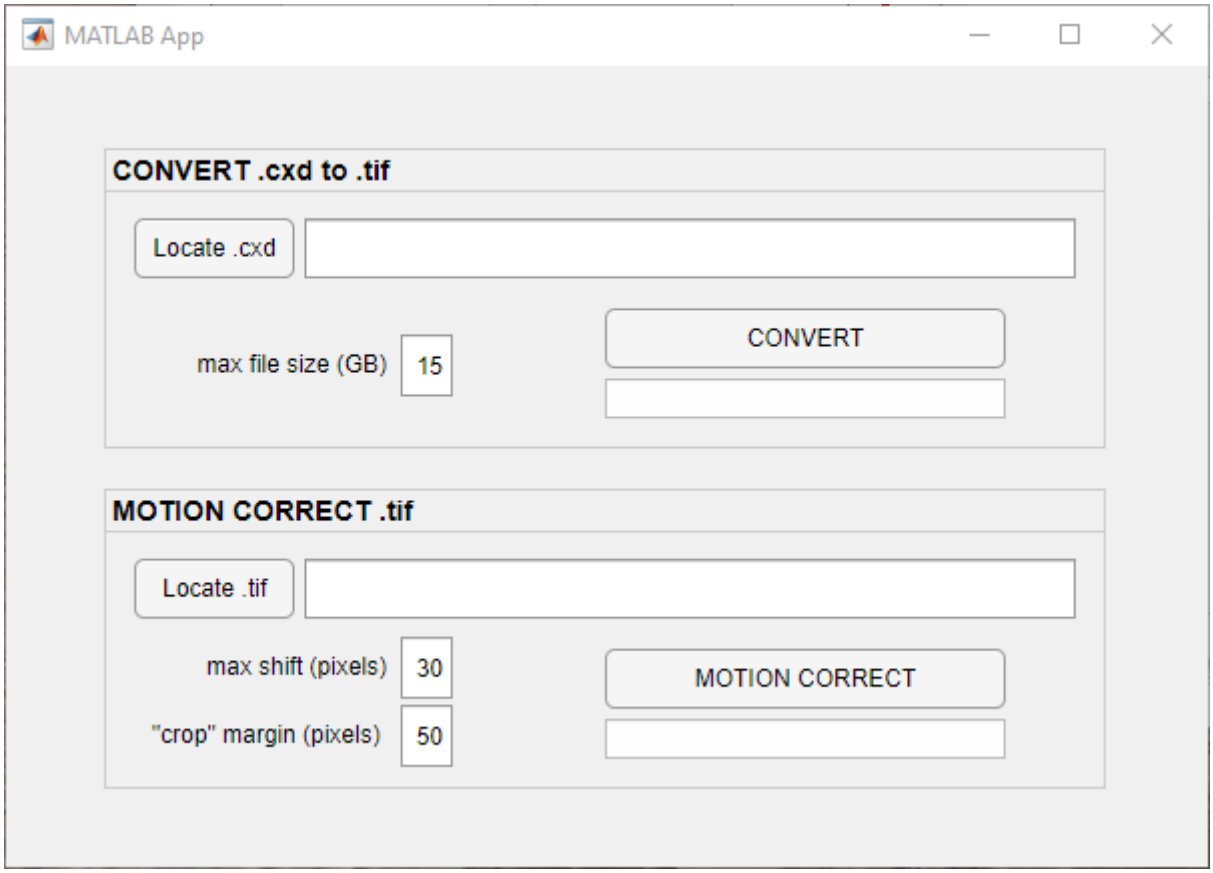
PREPROCESS_MULTIFIB



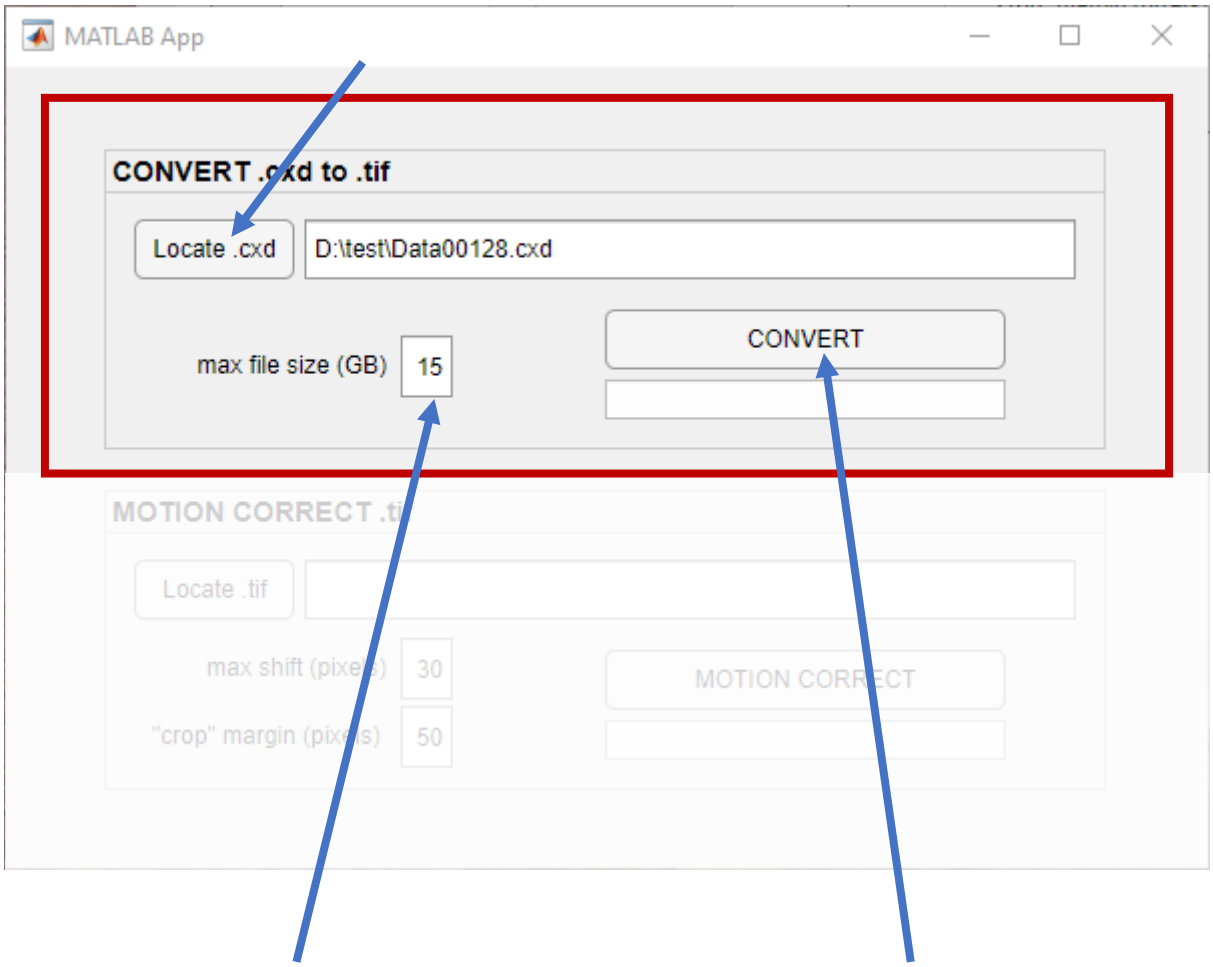
Running the standalone functions outside of this GUI



The CONVERT button calls **cxd2tif.m** and the MOTION CORRECT button calls **motion_correct.m**. These functions can be run separately outside of this GUI, which is useful for batch-processing of data. Open the functions to get more information.

CONVERT .cxd to .tif

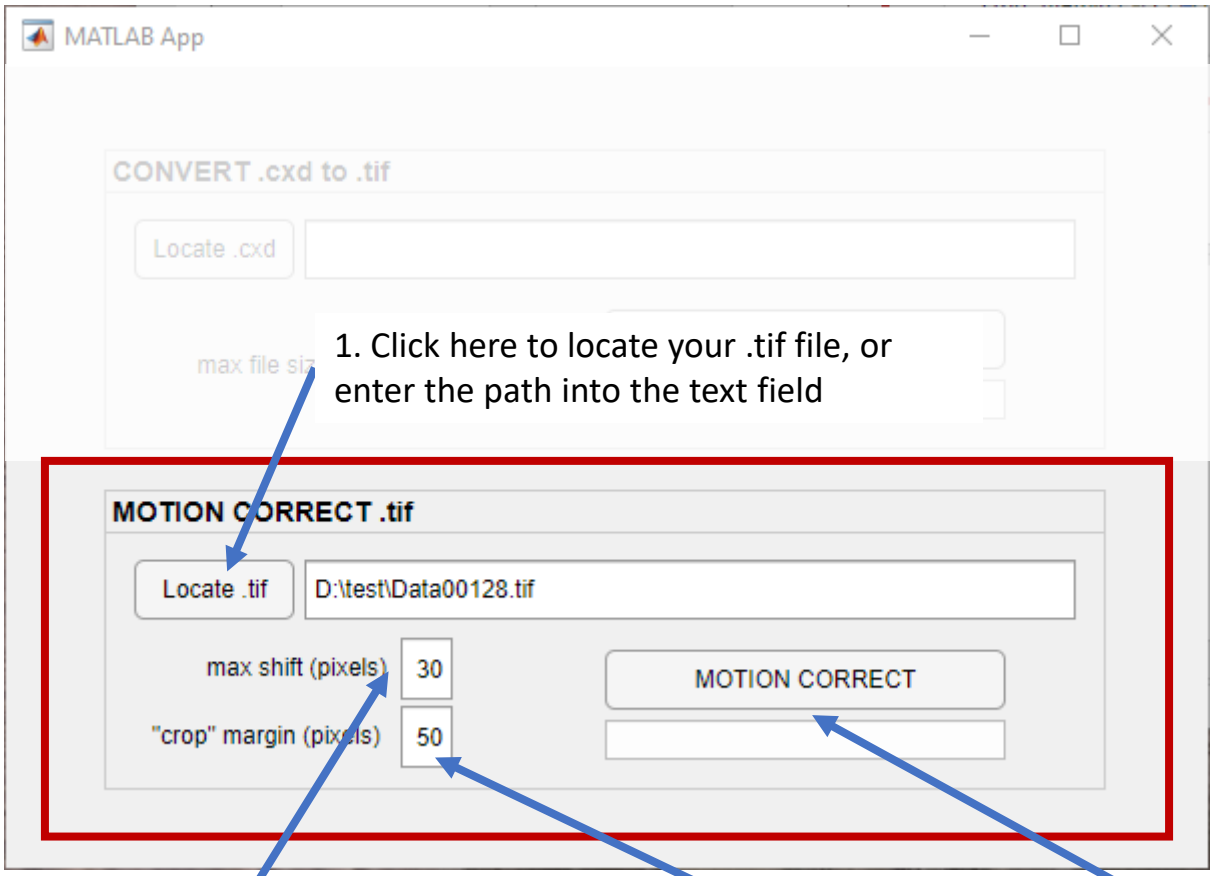
1. Click here to locate your .cxd file, or enter the path into the text field



2. Enter the max size you want the .tif file to be (as shown, it would be 15GB). The thing to consider is that if the file is too big, you may not have enough RAM to read it in for analysis. If the file ends up being bigger than that, the conversion will save multiple files as needed: Data00128_1.tif, Data00128_2.tif, etc.

3. Click CONVERT to run. Status updates will be displayed in the text box below this button.

Motion-correct the .tif



2. Enter the max shift (#pixels) you'll allow. This puts an upper bound on the shifts tested by the motion correction algorithm. You want to enter #pixels $\geq$ the greatest displacement you expect, but not too much more. Note: the larger the number, the slower the motion correction.

3. To speed up the motion correction, it's not necessary to run the whole-frame cross-correlation on the entire FOV. There's enough information in the middle, so we can set a margin around the edges to ignore. As shown, we're ignoring a margin of 50 pixels all the way around.

4. Click MOTION CORRECT to run. Status updates will be displayed in the text box below this button.