

PREPROCESS_MULTFIB MATLAB App README

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PREPROCESS_MULTIFIB

MATLAB App

CONVERT .cxd to .tif

Locate .cxd

max file size (GB)

CONVERT

MOTION CORRECT .tif

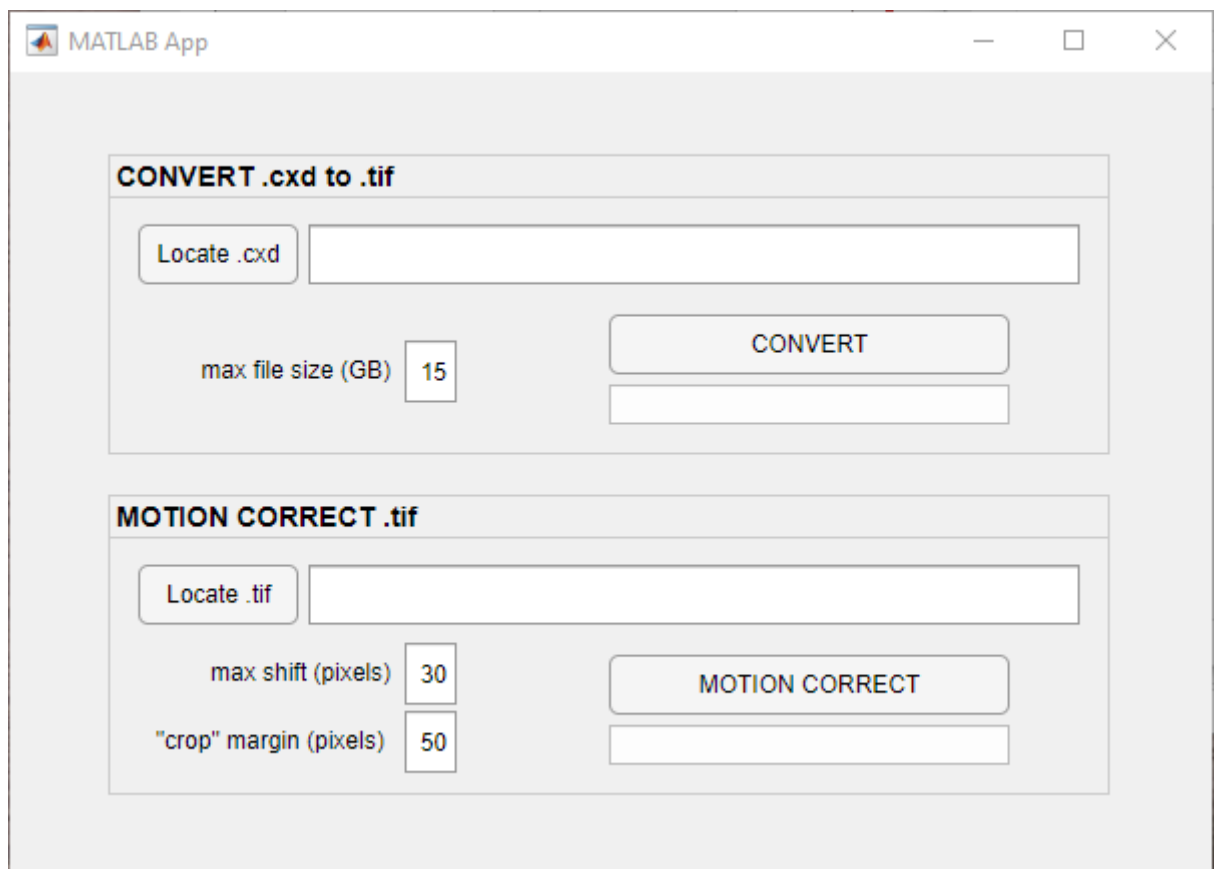
Locate .tif

max shift (pixels)

"crop" margin (pixels)

MOTION CORRECT

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

The image shows a MATLAB App window titled "MATLAB App". Inside, there are two main sections. The top section, titled "CONVERT .cxd to .tif", is highlighted with a red border. It contains a "Locate .cxd" button, a text field with the path "D:\test\Data00128.cxd", a "max file size (GB)" label with a value of "15" in a text box, and a "CONVERT" button. Below this is a second section titled "MOTION CORRECT .tif", which is faded. It contains a "Locate .tif" button, a "max shift (pixels)" label with a value of "30", a "'crop" margin (pixels)" label with a value of "50", and a "MOTION CORRECT" button. Blue arrows point from the text instructions below to the "Locate .cxd" button, the "max file size (GB)" text box, and the "CONVERT" button.

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

MATLAB App

CONVERT .cxd to .tif

Locate .cxd

max file size

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

MOTION CORRECT .tif

Locate .tif

D:\test\Data00128.tif

max shift (pixels) 30

"crop" margin (pixels) 50

MOTION CORRECT

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.