bAlign Batch 6
Oct 24, 2014

Purpose:

Convert a hard-drive folder of .tif files and perform the following:
-Split 2 channel files into _ch1.tif and _ch2.tif channel separated files.
-Perform slice-by-slice stack alignment on one channel and apply transformations to the other.
This requires 'MultiStackReg' to be installed (http://bradbusse.net/downloads.html).
-[optional] For scanimage4 .tif files, remove linear calibration
-[optional] For scanimage4 .tif files, crop all files to a rectangle specified, in pixels, as (left, top, width, height)
-Save 8-bit versions

Installation

-Drag and drop bAlign_Batch_v6.py into your Fiji 'plugins' folder
-Make sure you have 'MultiStackReg' plugin installed, you can download it from:
http://bradbusse.net/downloads.html
http://robertcudmore.org/software/download/MultiStackReg1.45_.jar

Running

-Select 'bAlign Batch v6' in Fiji plugin menu
-Select the hard-drive folder with .tif files to convert
-fill in options
-press 'Ok'

Options

Channels
-Get number of channels from scanimage 3.x or 4.x header.
-Otherwise, assume all stacks have this number of channels.

ScanImage4
-remove linear calibration
-crop all images
Note: Each image is cropped using the specified rectangle (in pixels).
If your stacks have a mixture of 1024x1024 and 512x512 images you want to put them into separate folders and run bAlignBatch6 on each folder, specifying the proper rectangle (in pixels).

MultistackReg
-Run multistack reg (requires additional plugin)
-if 2 channels then align on this channel
-Start alignment on middle slice
-Otherwise, start alignment on this slice
Note: if you specify a slice below the bottom of a stack (for any of the stack you are converting), the FIRST slice of the stack will be selected for alignment.

Save 8-bit
-save another folder with 8-bit copies of your channel separated .tif stack
Note: These 8-bit versions are saved in a different folder. The main output folder still contains your channel separated originals with the original bit-depth (usually 11-bit for ScanImage).