**STITCH A GRID OF TILES – 11/01/2021**

**Input:** Processed tiles, named in such a way that they form a column grid:

A picture containing shoji

Description automatically generated

Create these tiles with the Fiji macro prepareTiles.ijm.

**Outputs**:

* A fused (=stitched) image, stored inside the well folder. Example: B02\_fused.tif.
* Fused thresholded images (only if the user asked for it). Examples: B02\_th\_dapi.tif and B02\_th\_phalloidin.tif.

**Code**: The Fiji macro 2\_stitch.ijm inside the folder

CellContactNetwork > Fiji macros > HeLa processing.

**Dependencies**

* Phase-correlation stitching plugin stitching > grid/collection stitching (Preibisch et al., 2009).

<https://imagej.net/Grid/Collection_Stitching_Plugin>

* Custom-built Fiji macro “Tiles to Fused” (only used for brute-force stitching).

Find the .jar file in CellContactNetwork > Java plugins and the source code in CellContactNetwork > Java plugins > Source code > TilesToFused.

**How to run it:**

* Open the macro in Fiji and run.
* Fill in the parameters:

**Root**: the output directory where the well folders that contain the processed images are stored. Example:  
M:/tnw/bn/dm/Shared/Lukas/BEP/Experiments/WKS024/20x

**Well:** Name of the well. Only one well at the time can be stitched.

**Width/height of fused image**: Number of tiles that constitute the fused image, on one axis only. For example, if the fused image consists of 8x8=64 tiles, then fill in 8 here.

**Overlap:** Your guess for the overlapping area (in %) between two tiles. 2% usually works well.

**Stitch thresholded tiles**: Tick the box if you made thresholded tiles that you want to stitch.

**Brute-force stitch**: Tick this box if you simply want to paste the tiles right next to each other without computing any overlap. Only do this if you already tried regular stitching.

* When the stitching is done, a message box asks whether you are happy with the fused image. If you are also stitching thresholds, it will also ask you to fill in the names of the channels.
* If indicate that you are happy with the fused image, but not with the thresholds, the tile numbers of the individual tiles inside the fused image will appear. Use these numbers to manually adjust the tiles that you are unhappy with.

Graphical user interface, application

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