

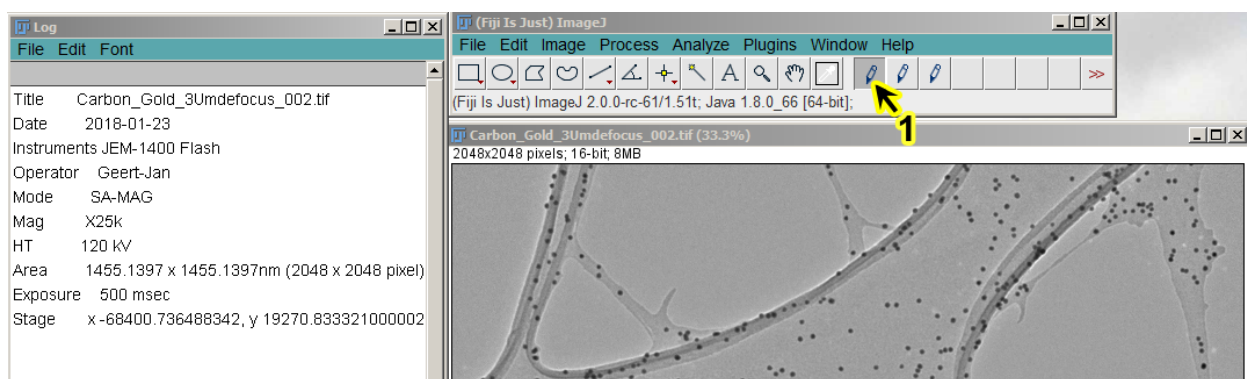
HOW TO DRAW A SCALE BAR ON IMAGES ACQUIRED WITH THE JEM 1400

DOWNLOAD THE JEOL SCALE MACRO AND INSTALL IT IN FIJI

- FIJI is an image processing and analysis software that is widely used in the scientific community. One can download this open source package which includes the software ImageJ and lots of plugins from the site <https://fiji.sc/>. There are options for MACs (with or without JRE), Windows (64 and 32 bits) and Linus (64 and 32 bits).
- Dr. Osamu OISHI has written a macro (© 2015; see note here below) in order to easily insert a scale bar in images collected with the camera of the JEM 1400. This macro is available through Geert-Jan.
- You can find the “StartupMacros.fiji .ijm” file at the Geminstr2 server in the EM folder -> FIJI plugin folder.
- Copy the file called “StartupMacros.fiji .ijm” into the folder Fiji.app>macros
- Restart FIJI

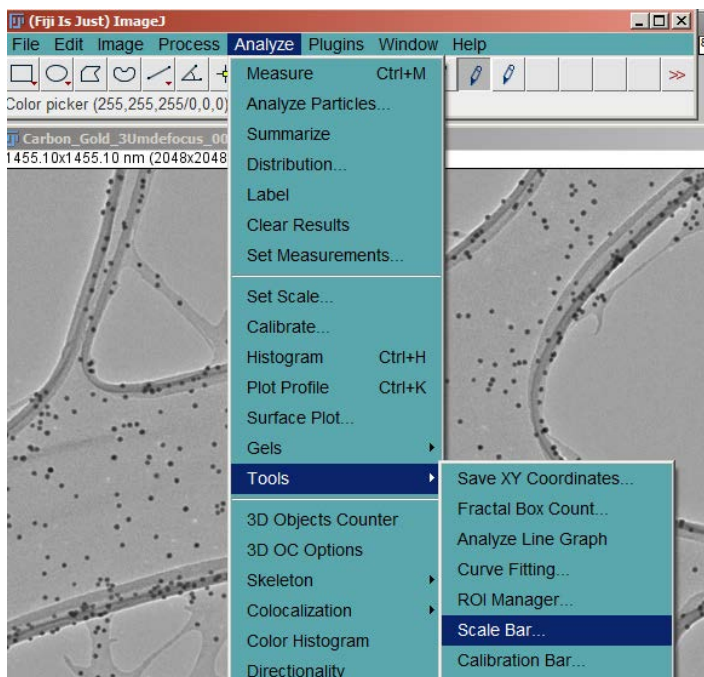
HOW TO USE THE SCALE BAR MACRO

- Start FIJI if not yet open
- Open images (File> Open or drag the image to the bar below the menu tools in FIJI)
- Click on the pencil tool 1.
- Click with the left mouse button (cross) in the open image. A log file opens which shows
Title name of image
Date
Instrument name (here JEM-1400 Flash)
Operator
Mode
Mag(nification)
HT
Area in nm and in pixels (width x height)
Stage coordinates



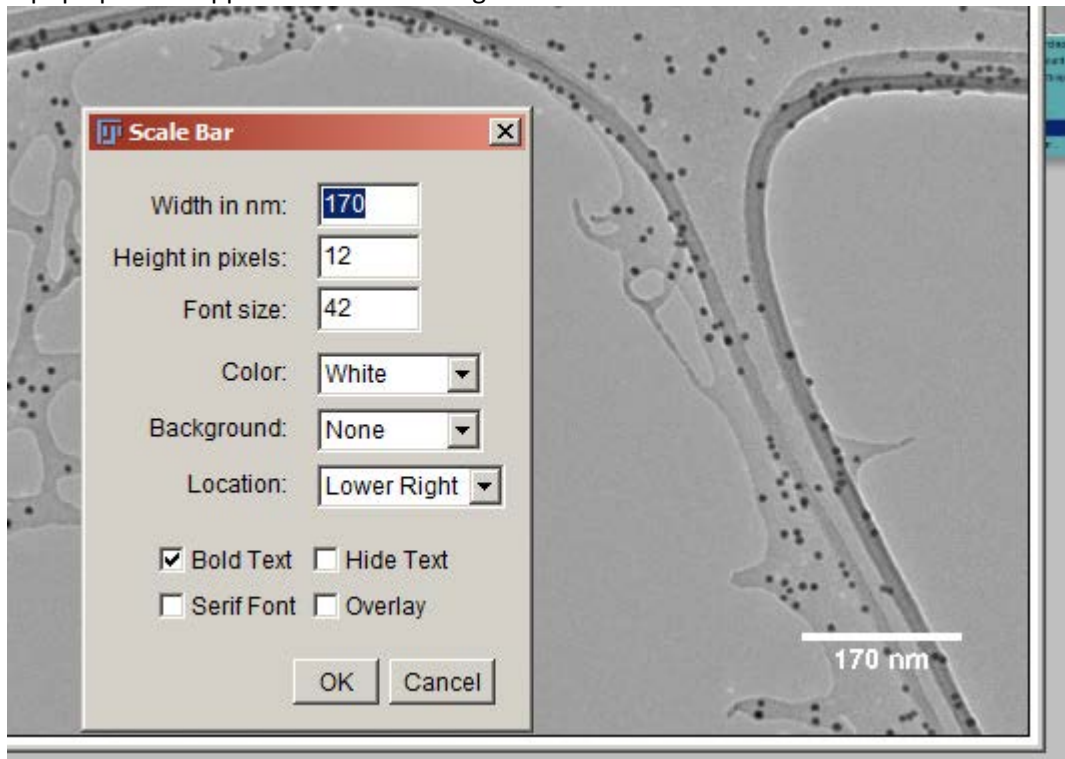


- Click on pencil tool 2
- Click (again) with the left mouse button (cross) in the open image (This reads the information from the header of the image)
- Select from the main menu Analyze > Tools > Scale bar



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- A pop up menu appears in which settings for the scale bar can be defined



The position of the scale bar can be defined at Location (Option “At selection” will place the scale bar at the site of a previously drawn line with the line tool)

- File > Save as will retain the bit depth of the image, but with the scale bar and label burned into the image

HOW TO CITE THE SCALE BAR MACRO AND FIJI IN PUBLICATIONS

If you utilize this macro in any publication, don't forget to cite FIJI in your publications, by mentioning:

- Any specific publications of plugins used. **Here the name of Dr. Osamu OISHI** should be mentioned as developer of the macro for insertion of a scale bar (see detail of copyrights here below)
- The general paper of ImageJ distribution used (see <https://imagej.net/ImageJ>) , for example cite the Fiji paper Schindelin, J.; Arganda-Carreras, I. & Frise, E. et al. (2012), "Fiji: an open-source platform for biological-image analysis", Nature methods 9(7): 676-682, PMID 22743772, doi:10.1038/nmeth.2019 on Google Scholar).

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