

ImageReducer quick start guide

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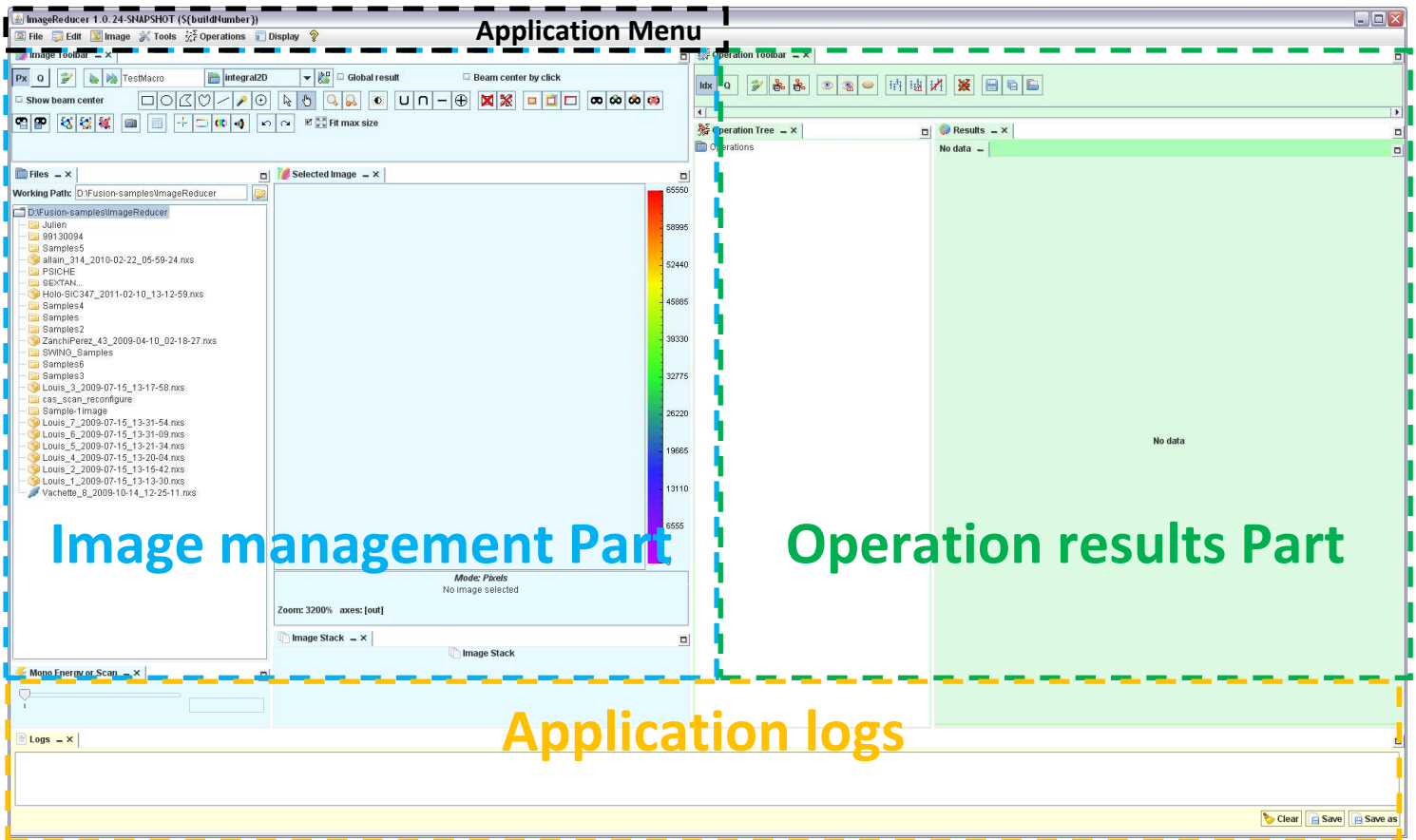
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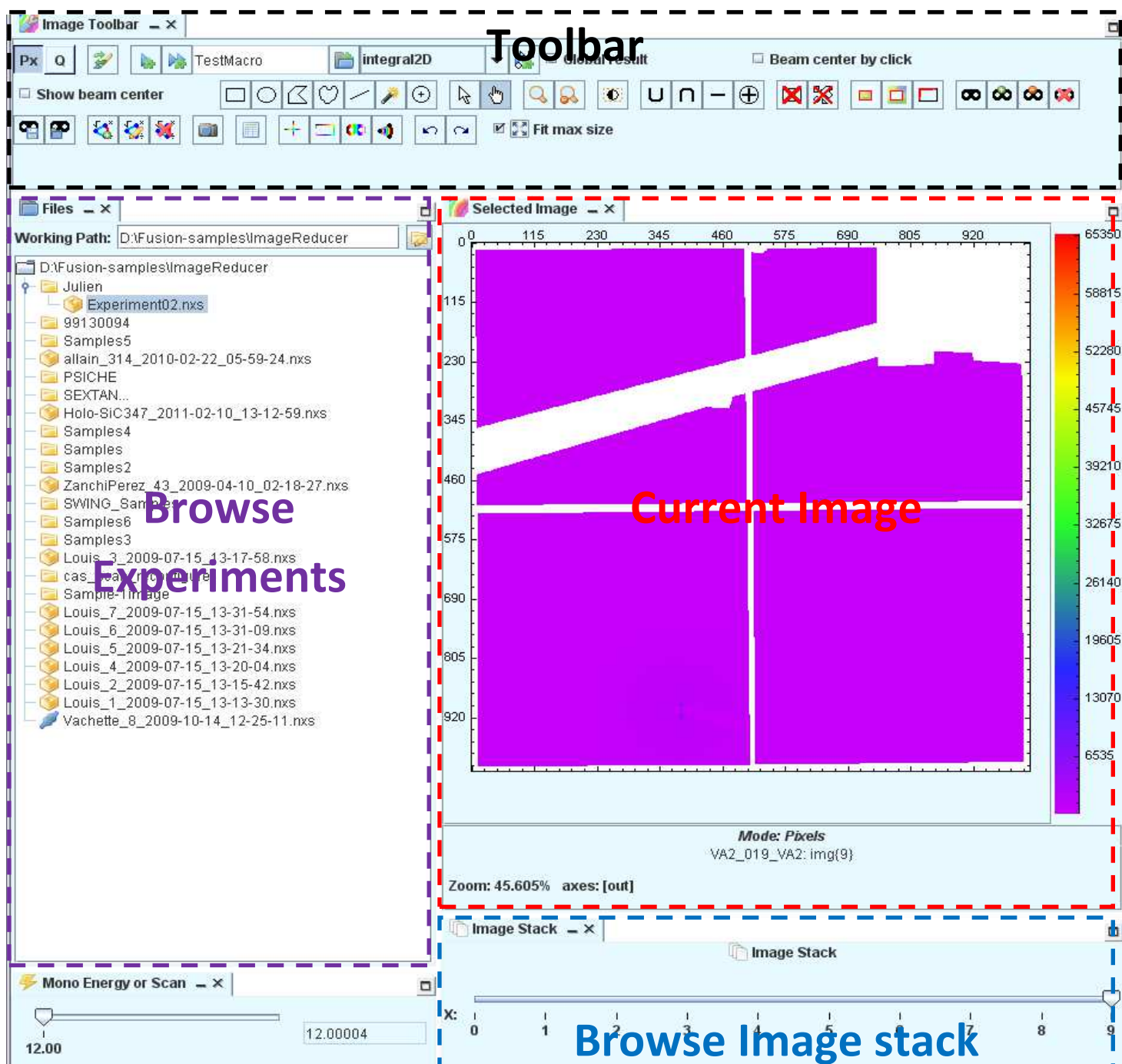
I. First look




ImageReducer application is separated into different areas:

- Application Menu
- Image Management
- Operation results
- Application Logs

II. Image Management




Step1: browse your experiments. You know you found an experiment when you see this icon: 

Double click on your experiment to load it.

Then, you can browse through your image stack (there are as many sliders as you have stack dimensions).

Toolbar icons:

 Image scale mode

 Redraw/Reload Experiment tree

Diagram illustrating the Macro application toolbar with callouts:


- Macro selection**: Points to the 'integral2D' dropdown menu.
- Apply macro on all selected experiments**: Points to the 'Apply' button (green icon).
- Apply macro on current image**: Points to the 'Apply' button (blue icon).
- Quick choose an algorithm to apply on whole image stack**: Points to the 'integral2D' dropdown menu.
- Automatic calculation part**: Points to the 'Global result' checkbox.
- Choose, when applying calculation on whole image stack, whether to have one result per image or to have a global result adapted to image stack dimension**: Points to the 'Global result' checkbox.


When you run a macro on whole image stack, you don't need to load experiment first anymore. Instead, macro will be run on all selected experiments in tree.

☐ **Beam center by click** Enable/disable the possibility to **change beam center coordinates by pressing [Alt] Key while clicking on selected image**


☐ **Show beam center** Show/hide previously set beam center

 Regions Of Interest (ROI)

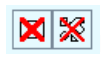
 Selection mode (allows you to select a ROI to interact with it. Example: set it as inner ROI)


 Pan mode (browse through your image in zoomed mode)

 Zoom/unzoom

 5%-95% contrast

 ROI combination

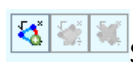
 Delete selected/all ROI

 Set selected ROI type (inner, outer, none)

 Threshold mask

 Mask management

 Save/load mask

 Sector management



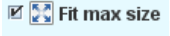
Export image



Show data table

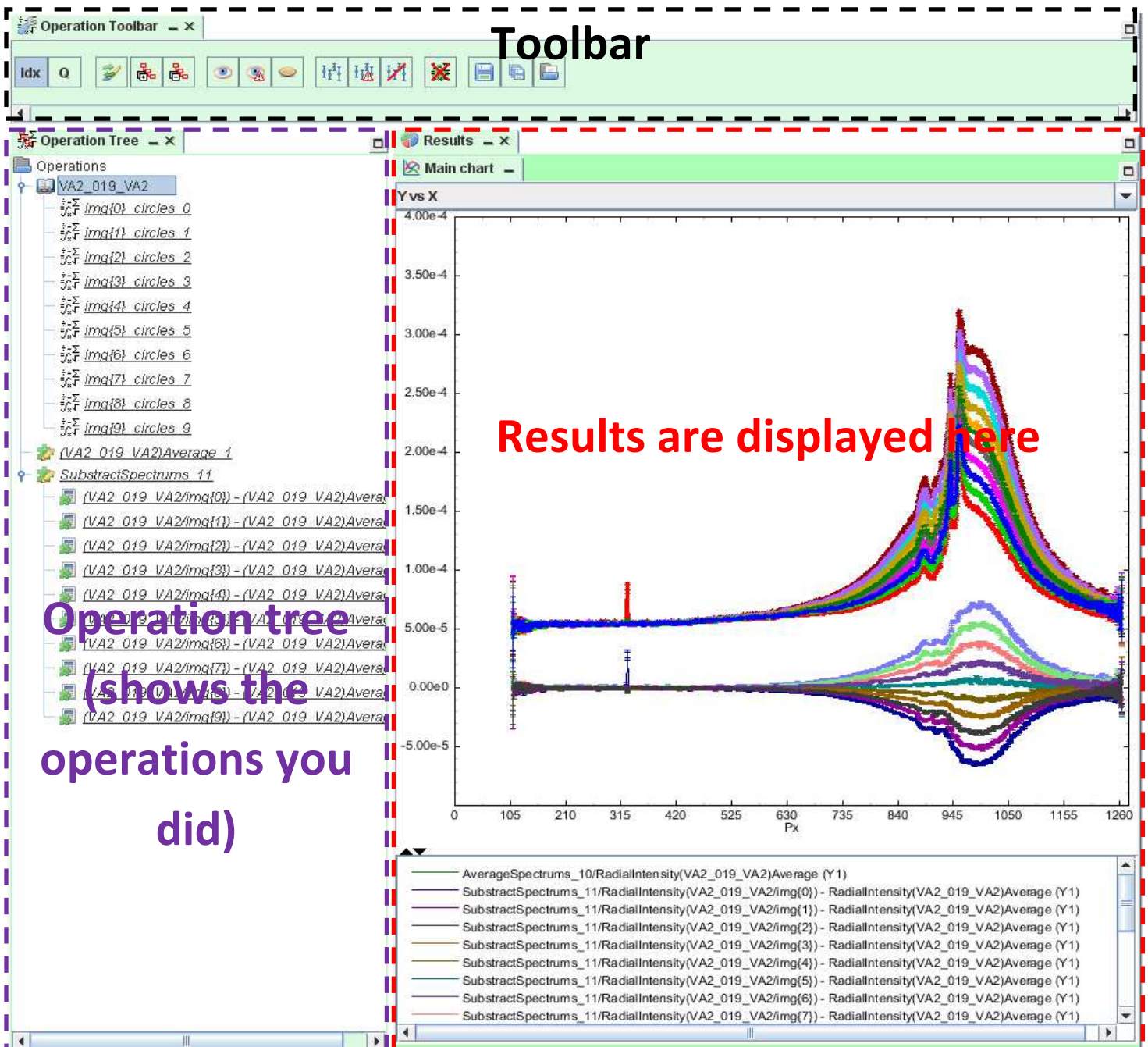


Undo/Redo



Force (or not) image to always fit maximum available size

III. Operation results Management



Toolbar icons:

Idx

Q

Chart abscise scale





Redraw/Reload operation tree







Expand/Collapse operation tree









Display/Hide selected operation results










Display/Hide selected operation results error margins



Delete selected operations

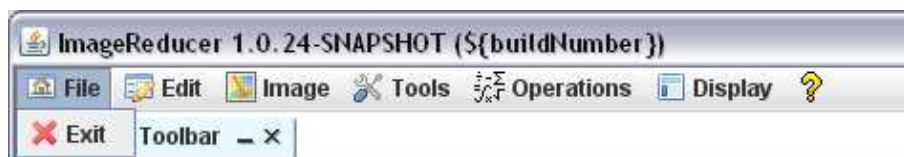




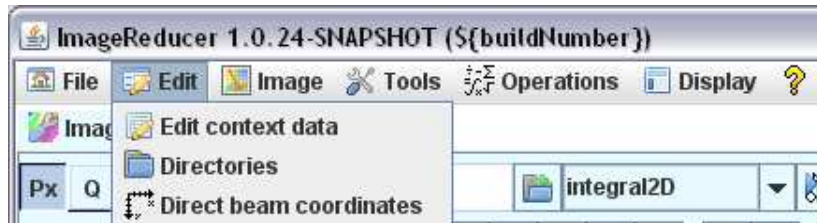


Save/Load operations


IV. Application menus



File Menu: exit application



Edit Menu: override some known data or change known directories (macro directory, mask directory, etc...)

 **Direct beam coordinates** is here to change beam center coordinates

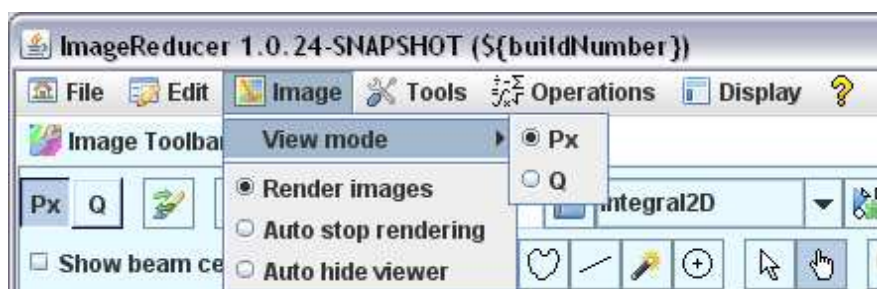
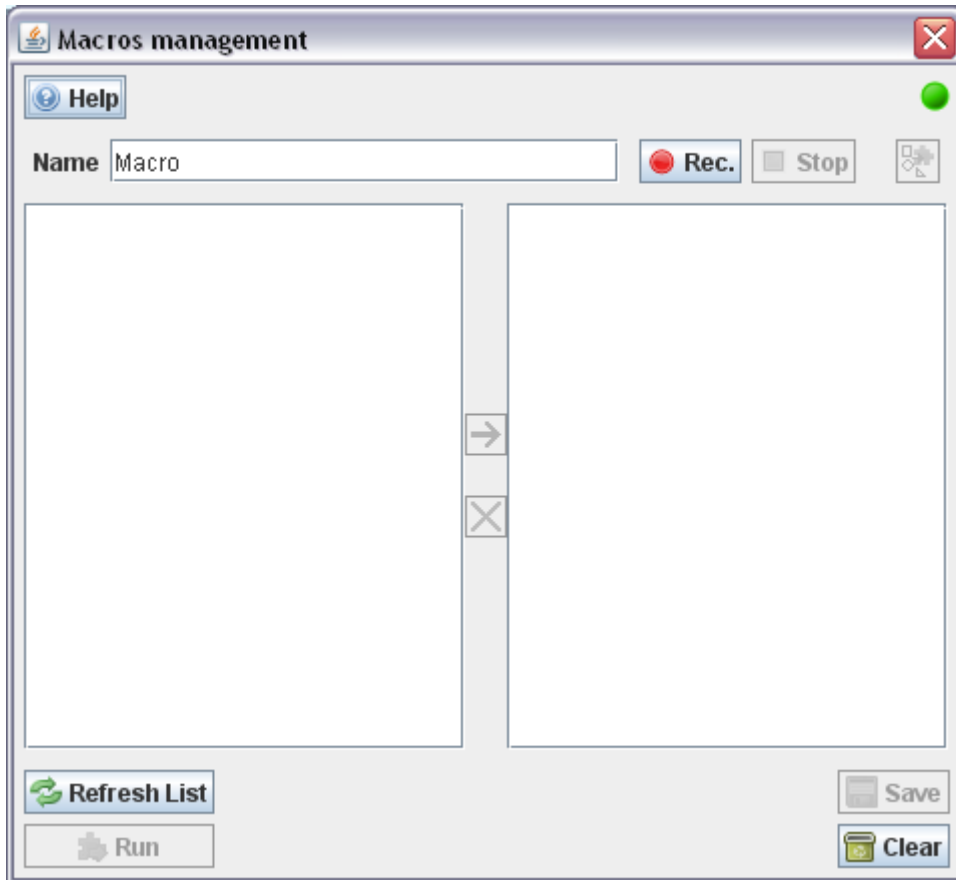


Image Menu:

- You can choose how to render images during calculation on whole image stack:
 - Render images: display every image content
 - Auto stop rendering: do not display image content, but draw axis, in order to see image dimensions (faster)
 - Auto hide viewer: hide viewer during calculation on image stack (even faster)
- You can edit image axis scale mode, when available.
- You can change selected image axis scale mode
- You can **run image transformations** (rotation, threshold, etc...), when available.

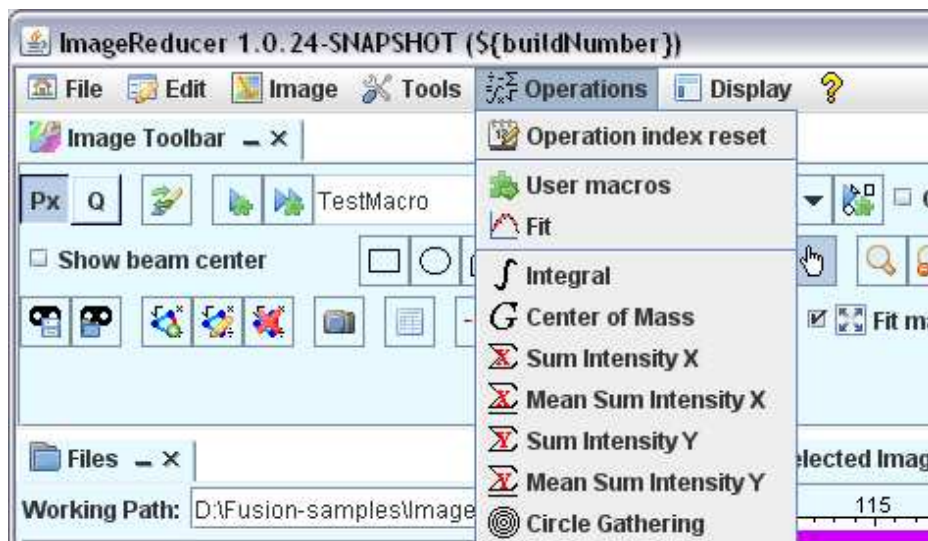


Tools Menu: This is where you can access macro edition:



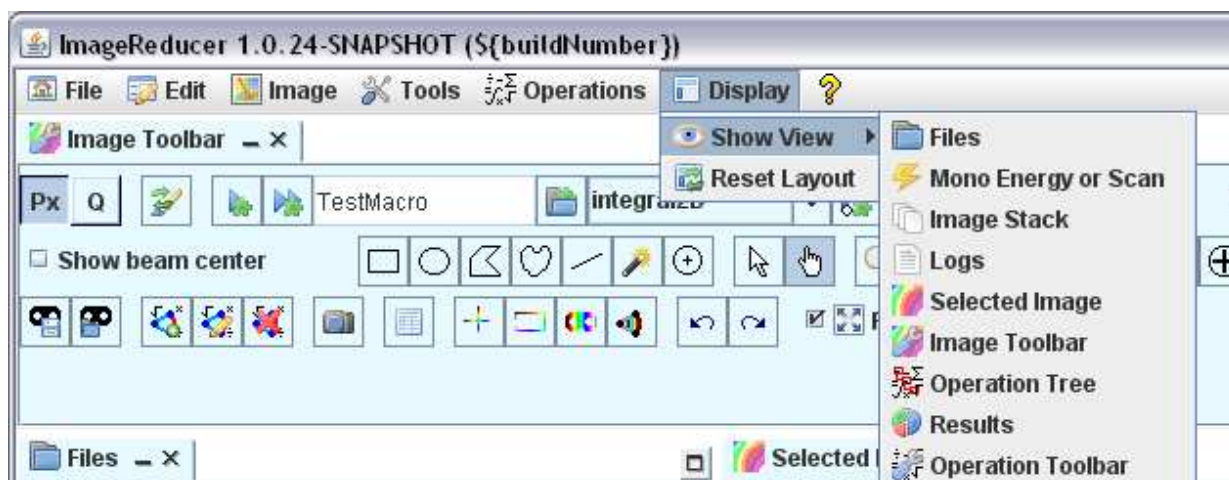
To create your macro:

- Enter your macro name
- Push “Rec” button
- Do your operations in ImageReducer (this will fill right text zone)
- One finished, click on “stop” button, then on “save” button
- Your macro will appear in left zone. You can edit it using arrow button, and delete it using X button
- You can test your macro using “Run” button
- Every macro registered here becomes usable in image toolbar



Operations Menu:

- You can reset operation index: This is for advanced users only, as it allows you to replace a previous operation with a new one
- You can run 2D \rightarrow 1D or 2D \rightarrow 0D operations
- User macros allows you to apply, when available, some macros on obtained results (example: sum spectrums)
- Fit allows you, when available, to apply some Fits on your results



Display Menu: Allows you to show a view you previously hid, or to reset layout to default one