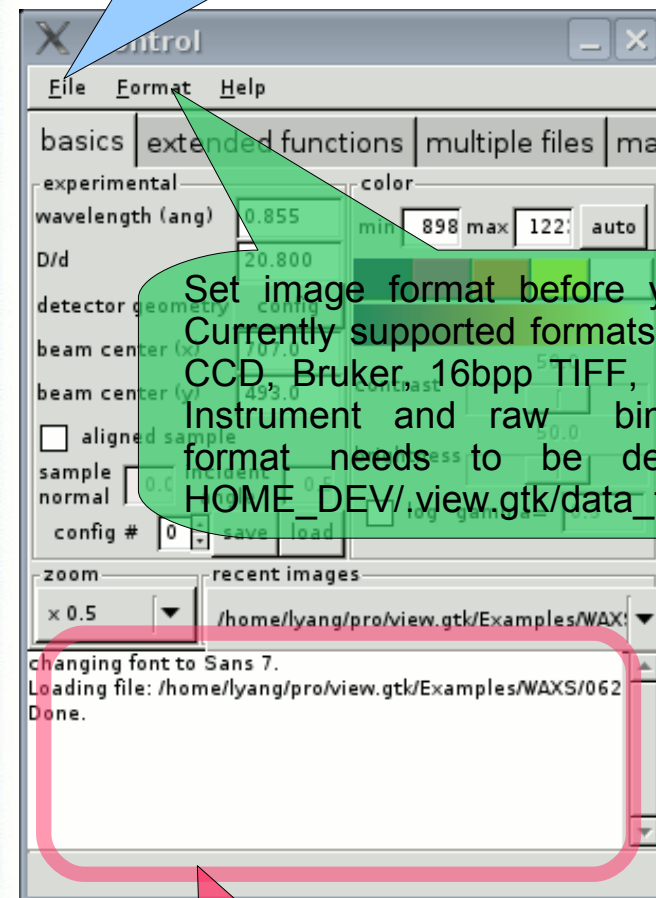


Example of a scattering pattern of AgBH displayed by view.gtk. The blue rings are produced by the "reference pattern" feature.

Load image file. / Save displayed image as a JPG file. / Change font. / Quit.



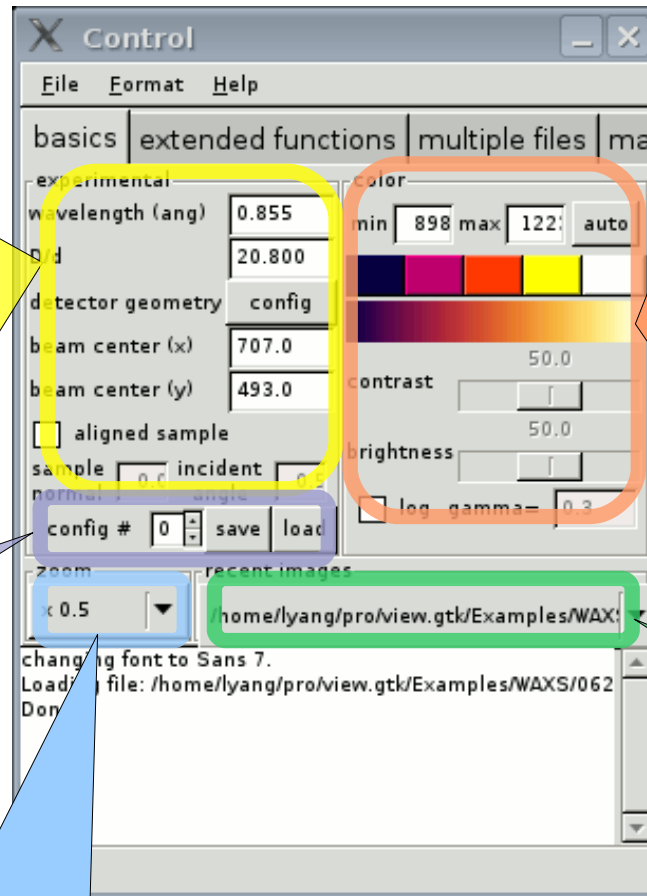
Set image format before you load. Currently supported formats are: Mar CCD, Bruker, 16bpp TIFF, Princeton Instrument and raw binary (the format needs to be defined in HOME_DEV/.view.gtk/data_format).

Information panel and status bar. The status bar displays pixel position, q values and pixel value.

Geometric parameters that determine the conversion from pixel position to q or (q_x, q_z) . D/d is the ratio between the sample-to-detector distance and the diameter of the detector. Click "config" to modify the orientation of the detector. "sample normal" and "incident angle" are active only when "aligned sample" is selected. You must type return to make the change of each parameter take effect.

Save and later retrieve current experimental parameters. Up to 5 set of parameters can be saved.

Change the magnification factor of displayed image.



These are the controls on the color of the displayed image. Click on the colored buttons to change the color scale. Any values below "min" will be displayed in the left-most color and those above "max" in the right-most color. Any values in between will use a color interpolated from the five selected colors. Logarithmic color scale is used by selecting "log" and setting appropriate "gamma" value.

This is a shortcut to recently loaded images.

The configurations are saved under HOME_ENV. Under windows, HOME_ENV is given by %USERPROFILE%. Under Unix HOME_ENV is \$HOME.

Select simulated reference pattern to be overlaid onto the displayed image.

User-defined pattern should be given in HOME_ENV/.view.gtk/ref_pattern

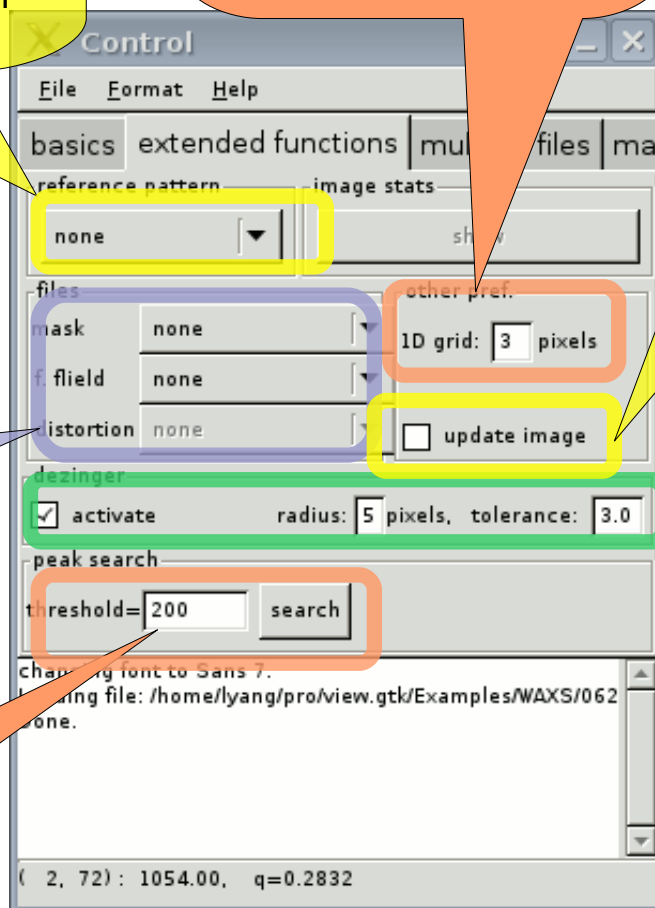
Other settings related to data processing, like the spacing between the two data points in the 1D profile.

If checked, the program will automatically reload the data when the file is changed. This is useful for monitoring the data coming from the detector.

At X9, the detector images are saved to
/mnt/SAXS_data/_current
and
/mnt/WAXS_data/_current.tif

Select the mask file, flat field pattern and spacial distortion pattern (not yet implemented) to be used in data processing.

Attempt to search for diffraction peaks in the data. See doc in the source code.



Settings to control the mathematical dezing operation, which compares the value of a pixel with pixels at a distance of "radius". The pixel is considered to be a zinger if the discrepancy between pixel values is more than "tolerance" multiplied by the mean value.

Up to 5 displayed image can be saved and later retrieved. A short comment can be added to help identify the saved images. Type return after you type in the comment!

Check this box will transform the displayed image into reciprocal space. Only works for aligned samples.

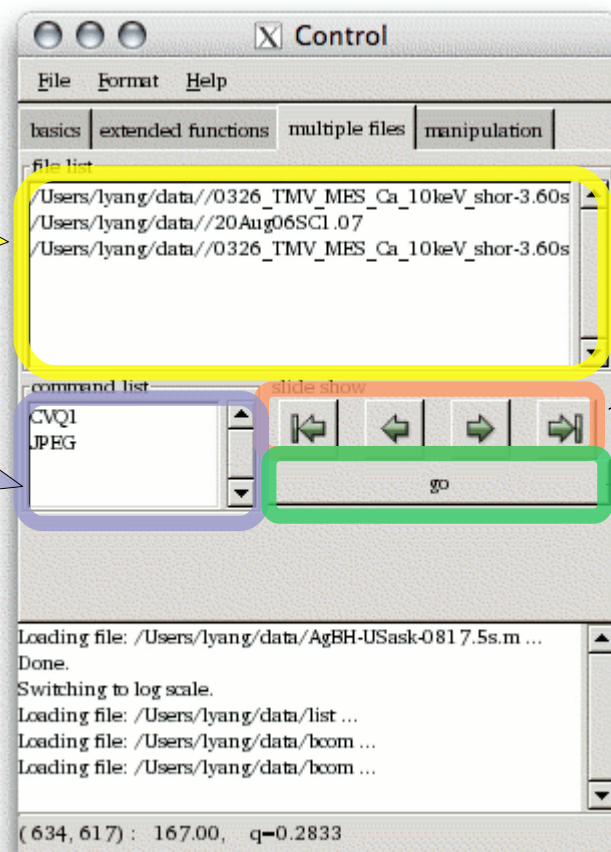
The screenshot shows a window titled 'Control' with a menu bar (File, Format, Help) and several tabs: basics, extended functions, multiple files, and manipulation. The 'memory' section has 'store' and 'recall' buttons, a numeric input set to '0', and a text field containing 'AgBH pattern'. The 'evaluation' section features a calculator interface with inputs '2', '+', '(', '1', '-', and 'x', followed by 'calculate' and 'save' buttons. The 'GISAYS' section includes a checkbox for 'recp. spc.', a 'mark' button, and two 'qr' input fields. The 'line profile' section has fields for 'center' (x, y), 'length', 'orientation', and 'avg. rad.', with an 'extract' button. A text area at the bottom shows a log of file loading operations and a status line: '(634, 617) : 167.00, q=0.2833'.

Simple calculations can be performed on the saved images. The result/current displayed image can be saved to a file in binary format.

Line profile extraction at the given center, for the given length, width (twice the "avg.rad.") and orientation (0 is horizontal).

List of files to be batch processed. The filenames should be stored in a text file, one filename per line. Load this text file by clicking inside the box.

List of operations to be performed for each file in the file list. The commands should also be given in a text file, one command per line. Load this text file by clicking inside the box.



Buttons for browsing through the images in the file list.

Click to start batch processing.

Supported batch processing commands:

CVQ1: convert data into 1D intensity vs. q
JPEG: save as jpeg
ANGD: angular distribution of intensity
EXTR: same as extract
EXTB: EXTR with background subtraction
SUMB: like EXTB, but add all pixel values within the extracted line and output to `~/view-sumb,.dat`
SUMM: add up all files
PEAK: find sharp diffraction peaks
CVQ2: same as clicking rec.spc. check box

Supported mask file entries (up to 10 entries are allowed):

c	<i>cx</i>	<i>cy</i>	<i>r</i>		// circular mask
h	<i>cx</i>	<i>cy</i>	<i>r</i>		// inverse of c
f	<i>cx</i>	<i>cy</i>	<i>th_start</i>	<i>th_width</i>	// fan
r	<i>cx</i>	<i>cy</i>	<i>a</i>	<i>b</i>	<i>orientation</i> // rectangular

Supported user-defined reference patterns (`HOME_ENV/.view.gtk/ref_pattern`):

R	<i>q</i>	<i>color(0-7)</i>				// a ring that correspond to $ q =q$
L	<i>qr1</i>	<i>qz1</i>	<i>qr2</i>	<i>qz2</i>	<i>N</i>	<i>color(0-7)</i> // line connecting (<i>qr1</i> , <i>qz1</i>) to (<i>qr2</i> , <i>qz2</i>), <i>N</i> points
P	<i>qr</i>	<i>qz</i>	<i>color(0-7)</i>			// the point that correspond to (<i>qr</i> , <i>qz</i>)

Supported raw binary format:

must specify data format in `HOME_ENV/.view.gtk/data_format`

e.g.:

640 480 16I LE

width, height, pixel format (8I / 16I / 32I / 16F), byte order (LE / BE)