

# LaVue - Start

## Start the Viewer

To start LaVue

```
$ lavue
```

or

```
$ lavue3
```

for python 3.

## Start the Viewer in the expert mode

Changing LaVue settings is available in the expert mode, i.e.

```
$ lavue -m expert
```

under an additional button: Configuration.

## Launching options

To get all possible command-line parameters

```
$ lavue -h
```

```
usage: lavue [-h] [-v] [-m MODE] [-y STYLE] [-e STYLESHEET] [-j INSTANCE]
            [-f IMAGEFILE] [-s SOURCE] [-c CONFIGURATION] [-z] [-o MBUFFER]
            [--channel CHANNEL] [-b BKGFILE] [-k MASKFILE] [-p MASKHIGHVALUE]
            [-t TRANSFORMATION] [-i SCALING] [-l LEVELS] [-q AUTOFACOR]
            [-g GRADIENT] [-r VIEWRANGE] [-x] [-u TOOL] [-a TANGODEVICE]
            [-d DOORDEVICE] [-n ANALYSISDEVICE]
```

2d detector live image viewer

optional arguments:

```
-h, --help            show this help message and exit
-v, --version         program version
-m MODE, --mode MODE interface mode, i.e. user, expert
-y STYLE, --style STYLE
                    Qt style
-e STYLESHEET, --stylesheet STYLESHEET
                    Qt stylesheet
-j INSTANCE, --instance INSTANCE
                    LaVue instance with separate configuration
--organization ORGANIZATION
                    Organization name
--domain DOMAIN      Organization domain name
--configuration-path CONFIGPATH
                    Configuration path
-f IMAGEFILE, --image-file IMAGEFILE
                    image file name to show, e.g. /tmp/myfile2.nxs://entry/data/pilatus,,-1
-s SOURCE, --source SOURCE
                    image source, i.e. hidra, http, tangoattr,
                    tangoevents, tangofile, doocsprop, tineprop,
                    epicspv, zmq, asapo, nxsfile, test
                    multiple-source names is separated by semicolon ';'
-c CONFIGURATION, --configuration CONFIGURATION
                    configuration strings for the image source separated by comma, e.g.
                    hidra -> '-c haspilatus300k.desy.de'
                    http -> '-c haso228eiger/1.5.0'
                    tangoattr -> '-c sys/tg_test/1/double_image_ro'
                    tangoevents -> '-c sys/lamccds/1/video_last_image'
                    tangofile -> '-c p00/plt/1/LastImageTaken,p00/plt/1/LastImagePath'
                    zmq -> '-c haso228:5535,topic'
                    doocsprop -> '-c TTF2.FEL/BLFW2.CAM/BL0M1.CAM/IMAGE_EXT'
                    nxsfile -> '-c /tmp/myfile.nxs://entry/data/pilatus'
                    or '-c /tmp/myfile2.nxs://entry/data/pilatus,0,34'
                    tineprop -> '-c /HASYLAB/P00_LM00/Output/Frame'
                    asapo -> '-c pilatus,substream2'
                    epicspv -> '-c '00SIM0:cam1:[640,480]
                    configuration for multiple-sources is separated by semicolon ';'
--offset OFFSET relative offset x,y[,TRANSFORMATION]
                    where x,y are position of the first pixel for a particular image source
                    while optional TRANSFORMATION can be:
                    flip-up-down, flipud, fud, flip-left-right, fliplr, flr, transpose, t,
                    rot90, r90, rot180, r180, r270, rot270, rot180+transpose, rot180t or r180t
                    offset for multiple-sources is separated by semicolon ';'
                    e.g.
                    ;200,300;54:121,3
```

```

                200,300:100,
                200,300:100,200,t
                ;200,300,r45;52;11,3,r180t
-w RANGEWINDOW, --range-window RANGEWINDOW
    range window slices, i.e. x1:x2,y1:y2 , e.g. -w 10:500,20:200
    where 'm' is '-'
--ds-factor DSFACTOR integer down-sampling factor
--ds-reduction DSREDUCTION
    down-sampling reduction function, i.e. 'max', 'min', 'mean' or 'sum'
-z, --filters apply image filters
-o MBUFFER, --memory-buffer MBUFFER
    size of memory buffer in frames
--channel CHANNEL
    default channel number or 'sum', 'mean', 'rgb' or RGB channels separated by comma e.
g.'0,1,3'
-b BKGFILE, --bkg-file BKGFILE
    background file-name to load
--bright-field-file BRIGHTFIELDFILE
    bright field file-name to load
-k MASKFILE, --mask-file MASKFILE
    background file-name to load
-p MASKHIGHVALUE, --mask-high-value MASKHIGHVALUE
    highest pixel value to show
-t TRANSFORMATION, --transformation TRANSFORMATION
    image transformation, i.e.
    flip-up-down, flip-left-right, transpose,
    rot90, rot180, rot270, rot180+transpose
-i SCALING, --scaling SCALING
    intensity scaling, i.e. sqrt, linear, log
-l LEVELS, --levels LEVELS
    intensity display levels e.g. -l m20,20
    where 'm' is '-'
-q AUTOFACTOR, --factor AUTOFACTOR
    factor of the highest pick for automatic levels in %, e.g. -q 0.5
-g GRADIENT, --gradient GRADIENT
    color gradient, i.e. grey, highcontrast, thermal, flame,
    bipolar, spectrum, spectrumclip, greyclip, reversegrey, cyclic,
    yellowy, inverted
-r VIEWRANGE, --range VIEWRANGE
    viewbox range, i.e. xmin,ymin,xsize,ysize , e.g. -r 5.6,m60.7,543.2,444.11
    where 'm' is '-'
-x, --start
    connect the image source
-u TOOL, --tool TOOL
    utility tool, i.e. intensity, roi, movemotors, meshscan, maxima,
    linecut, projections, ld-plot, angle/q, q+roi+proj, parameters, diffractogram
--tool-configuration TOOLCONFIG
    JSON dictionary with tool configuration, e.g. {"rows_to_plot": "0,1", "buffer_size":
512}
-a TANGODEVICE, --tango-device TANGODEVICE
    tango device of LavueController to communicated with clients during the run
-d DOORDEVICE, --door DOORDEVICE
    door device to communicated with sardana during the run
-n ANALYSISDEVICE, --analysis-device ANALYSISDEVICE
    tango analysis device of LambdaOnlineAnalysis to communicate with analysis clients
during the run
--log LOG logging level, i.e. debug, info, warning, error, critical

```

## ChangeLog

Changes for a specific version of LaVue can be found at [ChangeLog](#)