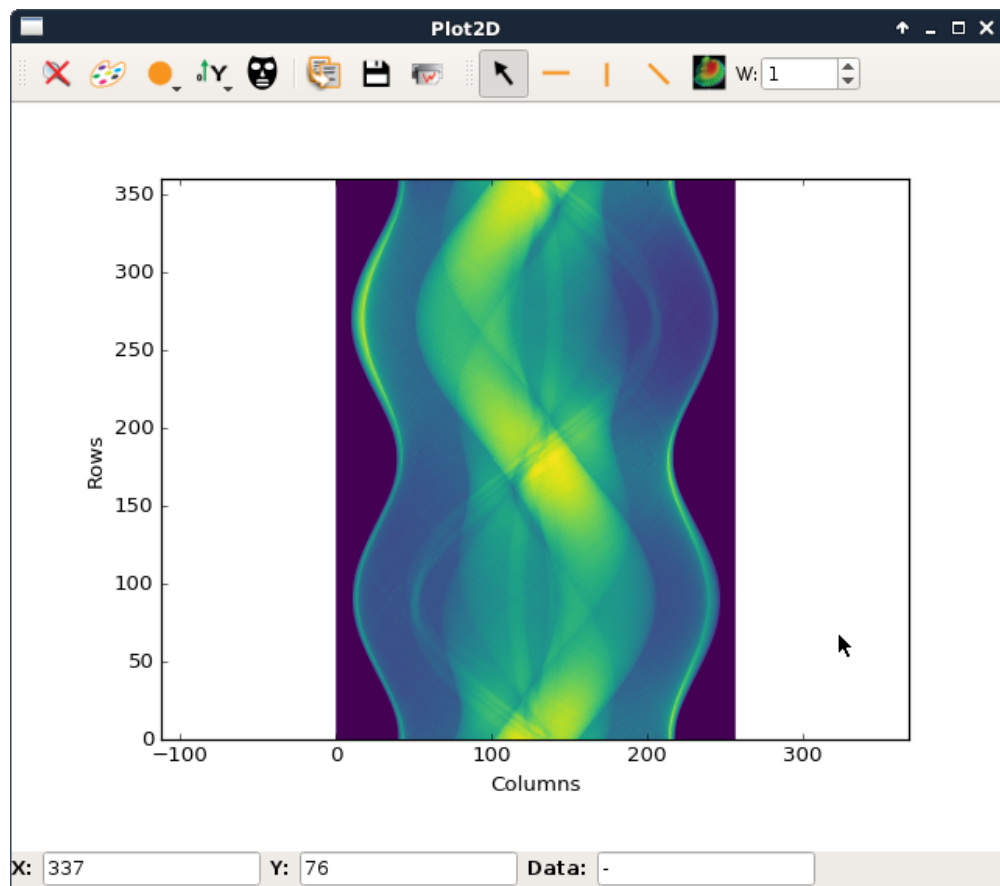


# Plot2DExercise

March 13, 2017

## 1 Simple plot of a 2D image



plot2D

- <http://www.silx.org/doc/silx/dev/modules/gui/plot/plotwindow.html>
- [http://www.silx.org/doc/silx/dev/modules/gui/plot/getting\\_started.html](http://www.silx.org/doc/silx/dev/modules/gui/plot/getting_started.html)

### 1.1 load data from data/lena.hdf5

```
In [ ]: import numpy
        from silx.gui.plot import Plot2D
```

```
import fabio
data=fabio.open('data/sinogram.edf').data
```

## 1.2 Plot the image

- using Plot2D class
  - addImage

```
In [ ]: ...
```

## 1.3 Change the color map

- using setDefaultColormap
  - a colormap id defined by a dictionary :
  - colormap = {'name': 'inferno', 'normalization': 'linear', 'autoscale': True, 'vmin': 0.0, 'vmax': 1.0}

```
In [ ]: ...
```

## 1.4 origin keyword

- define the center of the image to (100, 100) during the call of addImage(..., origin=(...), ...)

```
In [ ]: ...
```

## 1.5 scale keyword

- scale the image of a factor (0.1, 0.1) during the call of addImage

```
In [ ]: ...
```

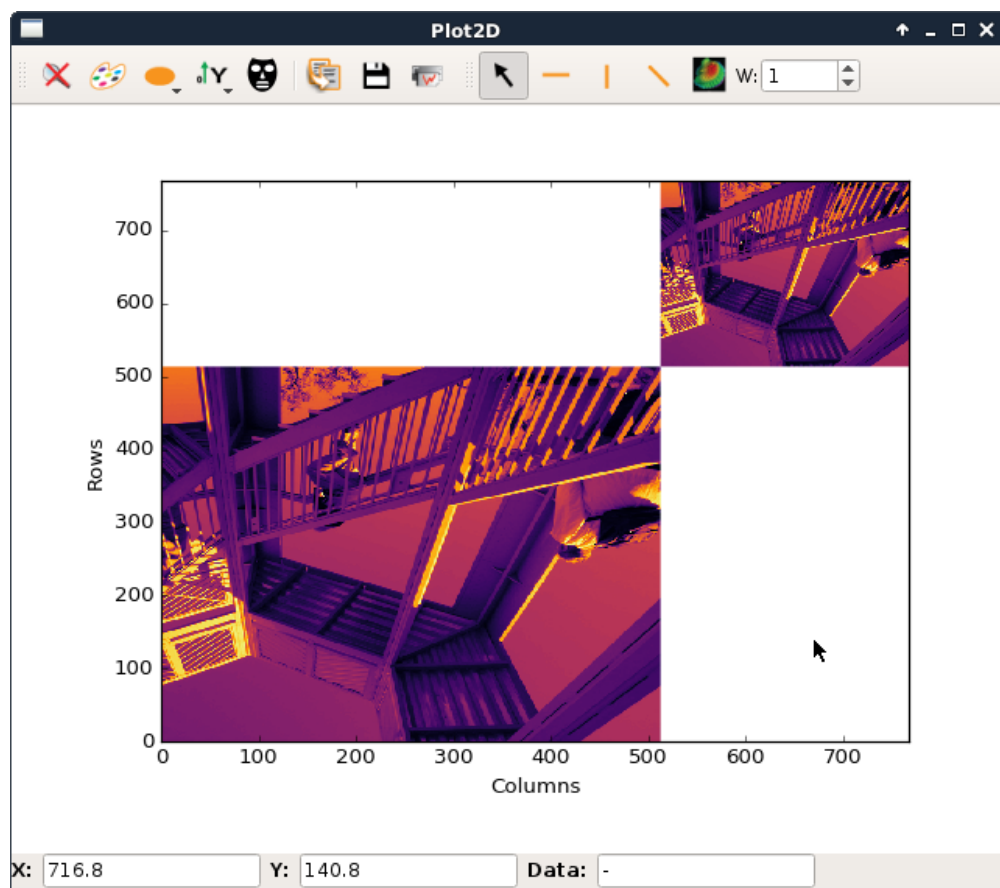
# 2 multiple image

create the lenas plot (data is in data/ascent.h5) using only :

- data
- Plot2D functions

## 2.1 load data

```
In [12]: # input using .hdf5
import h5py
dataPath='data/ascent.h5'
f=h5py.File(dataPath)
data=data = numpy.array(f['data'], dtype='float64')
```



lenas plot

## 2.2 plot data

In [ ]: ...

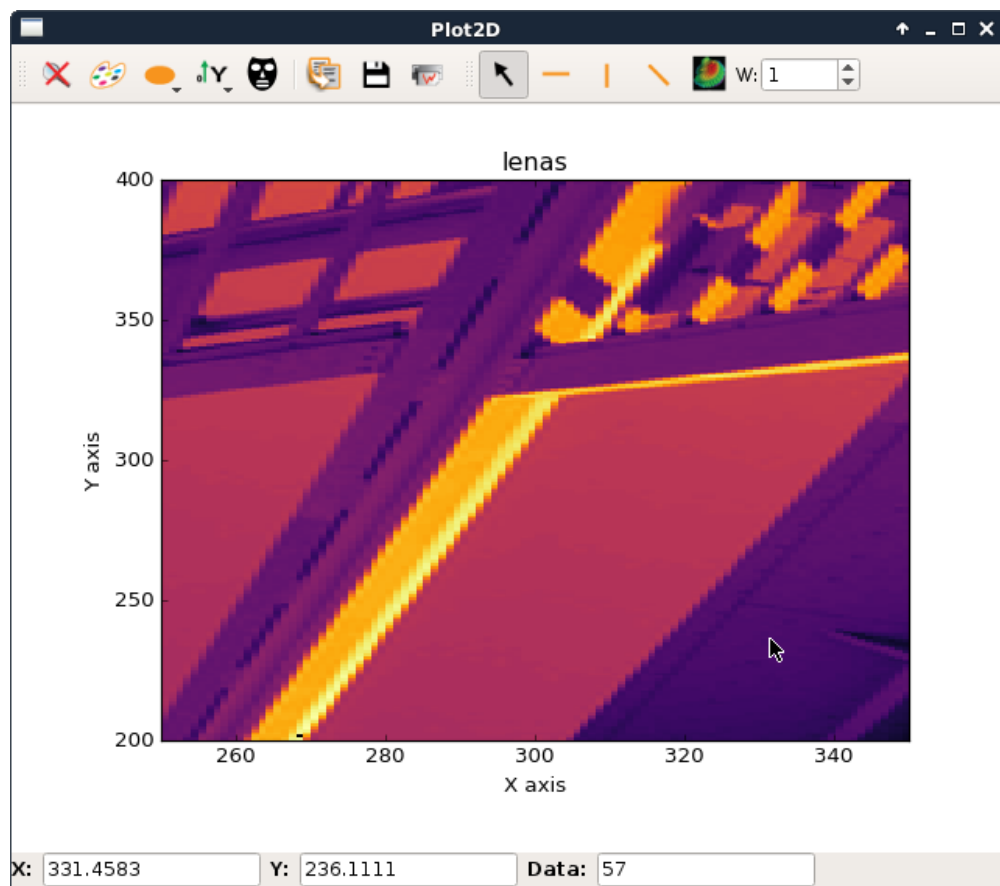
## 2.3 Control axes

- change title, X and Y labels
  - setGraphTitle
  - setGraphXLabel
  - setGraphYLabel

In [ ]: ...

## 2.4 x and y limits

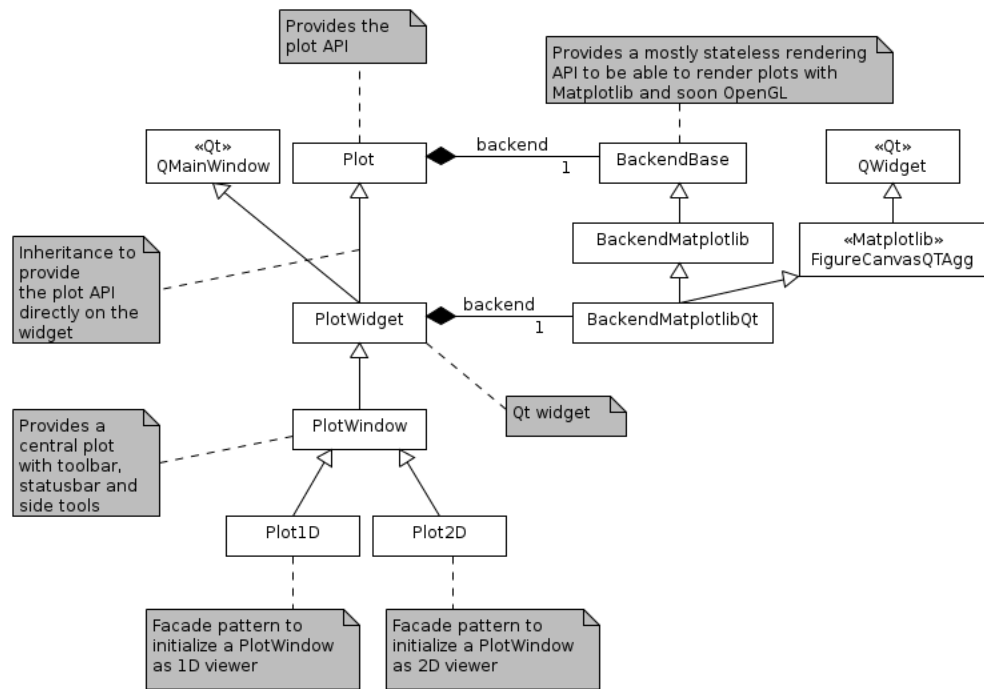
get the following display: - using setGraphXLimits - using setGraphYLimits



lena

In [ ]: ...

Plot class diagram



plot class diagram

In [ ]: