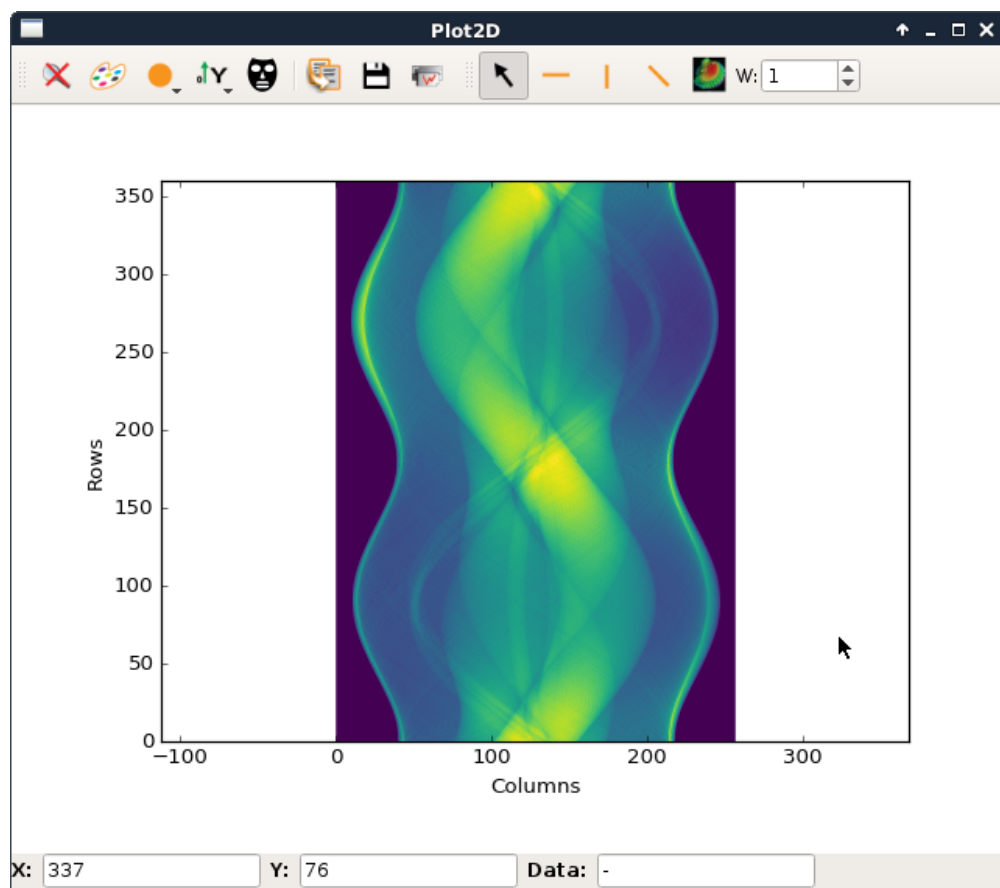


Plot2DExercise

November 14, 2016

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

1.1 load data from data/lena.hdf5

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

```

from fabio import edfimage
edfReader=edfimage.edfimage().read('data/sinogram.edf')
data=edfReader.getData()

```

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/lena.hdf5) using only :

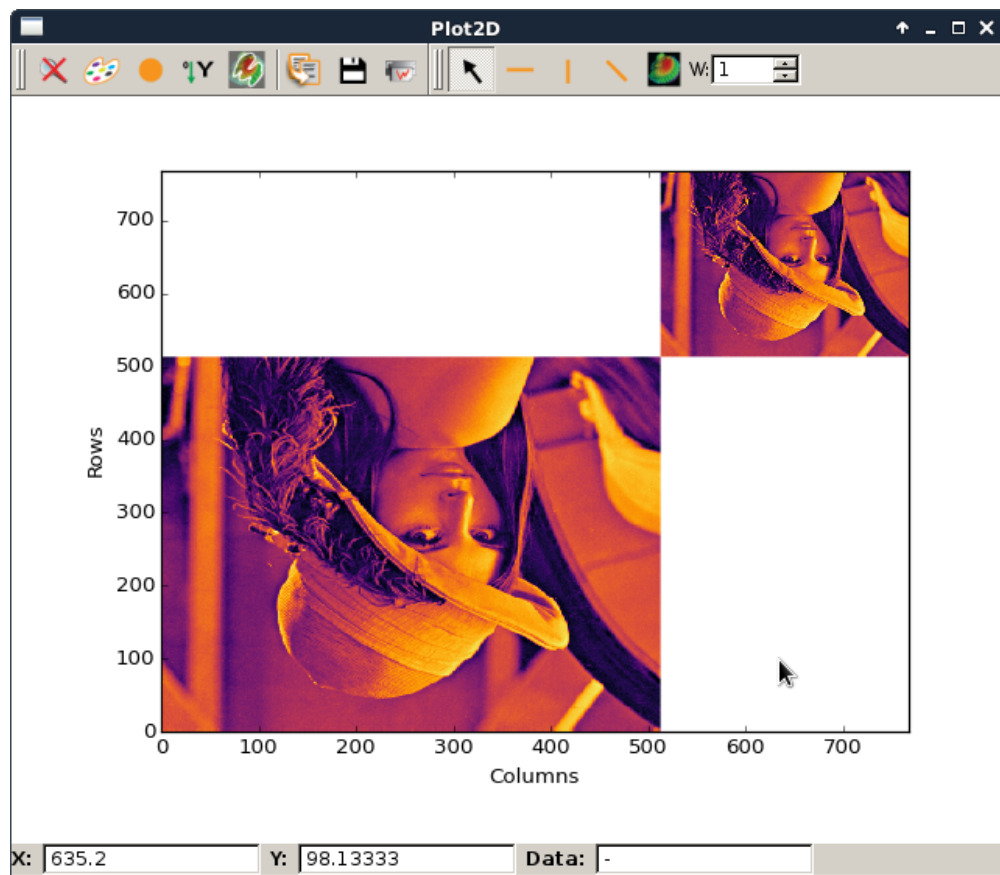
- data
- Plot2D functions

2.1 load data

```

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

```



lenas plot

2.2 plot data

In []: ...

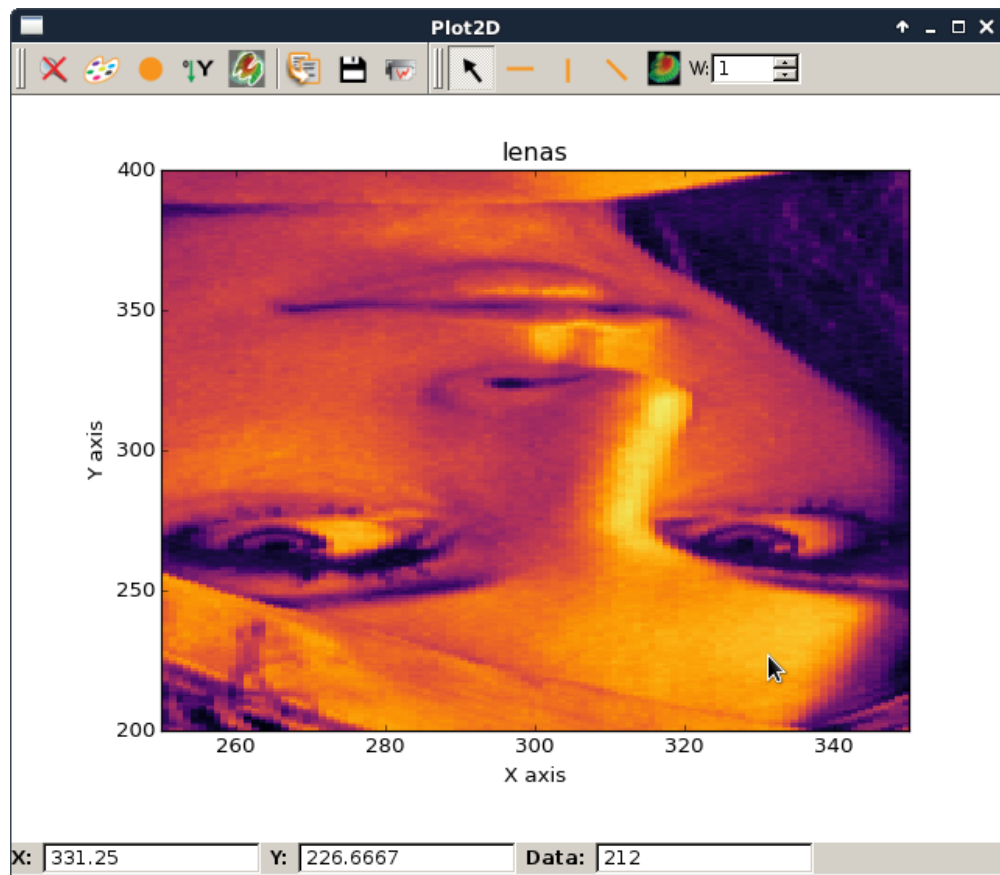
2.3 Control axes

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

In []: ...

2.4 x and y limits

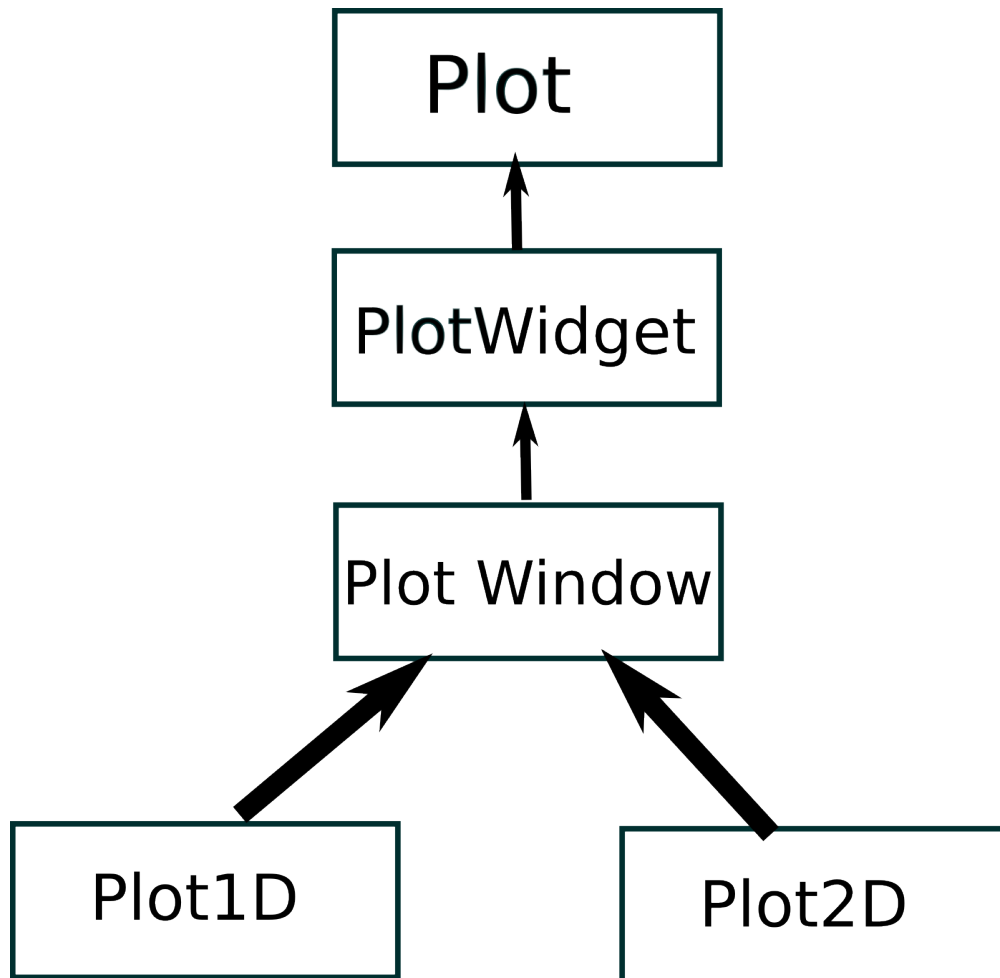
get the following display: - using setGraphXLimits - using setGraphYLimits



lena

In []: ...

Plot class diagram



plot class diagram

```
In [ ]:
```