



**1<sup>st</sup> Code Camp**  
**July 4, 2016**



# THIS TALK

- Introduction
- Status of silx
- Goals of the code camp
  - For users
  - For core developers
- Hands on!



# CURRENT STATUS

- Read SPEC files using an API similar to the h5py one
- Convert SPEC files to ESRF HDF5 NeXus implementation
- Dump dictionaries to files in several formats



# CURRENT STATUS

- Weighted n-dimensional histograms
- Fast histogramming using look up tables
- Non-linear least squares fits with constraints



# CURRENT STATUS

- Visualize 1D data
- Apply ROIs on them
- Control the plot via an interactive console



python

View Interaction Data

Options X: 122.3967 Y: 2.010226e+10 Value: No image

Console

```
The variable 'plt' is available. Use the 'whos' and 'help(plt)' commands for more information.

Python 3.5.2 (v3.5.2:4def2a2901a5, Jun 25 2016, 22:18:55) [MSC v.1900 64 bit (AMD64)]
Type "copyright", "credits" or "license" for more information.

IPython 4.0.3 -- An enhanced Interactive Python.
? -> Introduction and overview of IPython's features.
%quickref -> Quick reference.
help -> Python's own help system.
object? -> Details about 'object', use 'object??' for extra details.

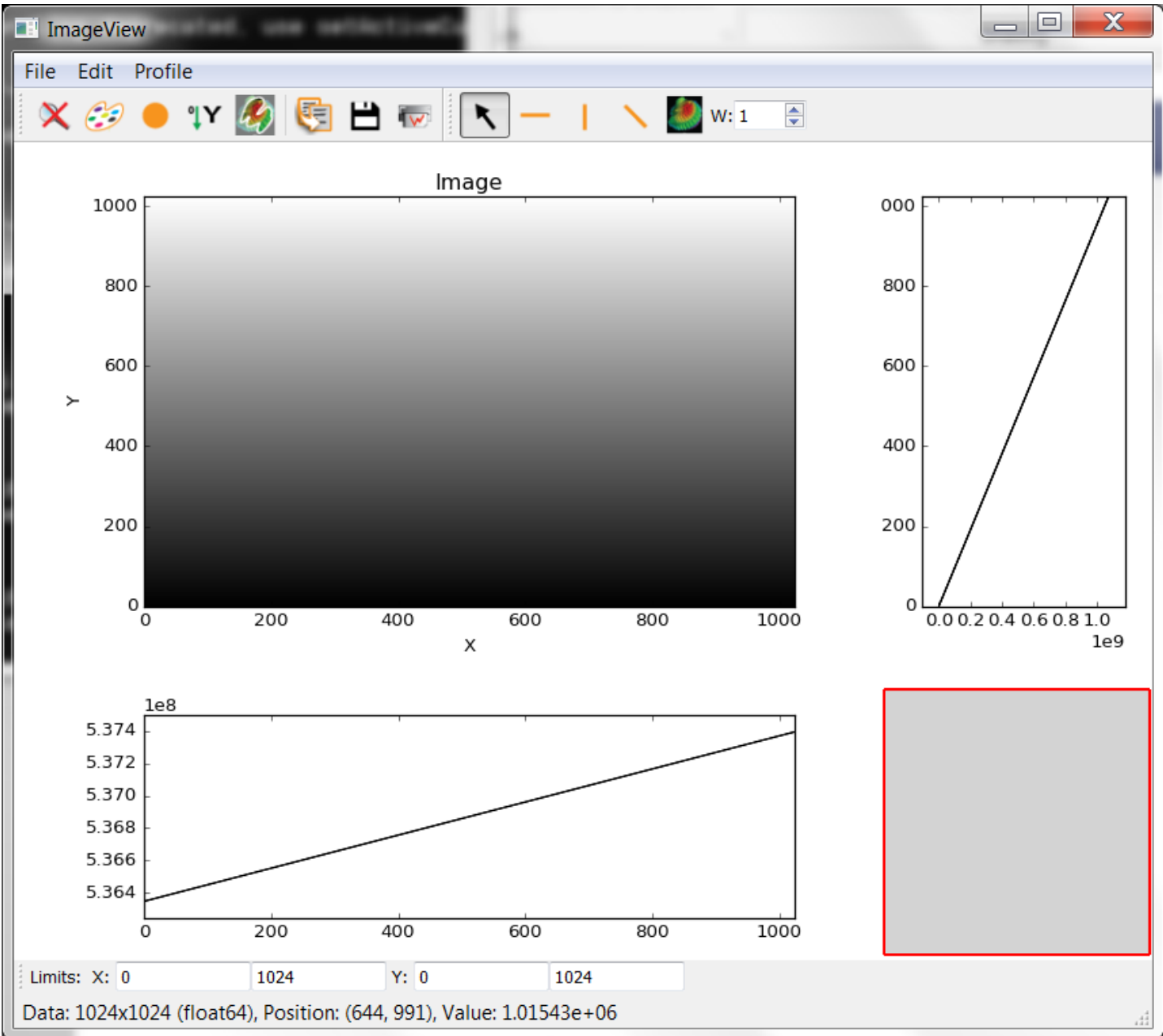
In [1]:
```

Regions Of Interest Console



# CURRENT STATUS

- Visualize 2D data
- Apply Profiles and Masks on them
- Apply different colormaps
- Plot an image with associated histograms







# ROLE OF NON-CORE DEVELOPERS

- Identify something you are interested on
- Try to achieve it
- Wow! I can do what I want, what next?
  - Start again
  - Make suggestions
  - Contribute with a demo/recipe
- I cannot do it
  - Ask help



# ROLE OF CORE DEVELOPERS

- Help non-core developers
- Create issues
  - Bugs
  - Documentation
  - Desired features
- Fix issues
  - Bugs
  - Documentation
  - Unlikely for new features
- Review pull requests



# HANDS ON!

- Try to start with a single entry point [www.silx.org](http://www.silx.org)
  - You should be able to install 0.1.0 version
- For this code camp we'll use 0.2.0, you can either:
  - clone the repository (and use your compilation chain)
  - install a nightly built package (debian)
  - use a pre-built binary wheel:
    - <http://www.silx.org/pub/wheelhouse/>



# CAVEATS

- Why I cannot dock the mask widget on a side?
- Can I change the color of the plot surroundings?
- Limit the number of labels on ImageView right histogram