ESRF + PaNdata

Update on activities

Summary

- Software catalog
- Data Policy
- Metadata
- Silx library
- Calypso+
- XSOCS
- Jobs

Software Catalog – thanks Jamie (ILL) !

Software Catalog – thanks Claudio (ESRF) !

Data Policy

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implementation

status

Beamline	Status	Techniques	Metadata Collection*	Data archiving*	Raw Data in HDF5*	Open access to data*
ID01	KMAP		Implemented			
BM01A						
BM01B						
ID02						
BM02						
ID03						
BM05	Tomography		In progress			
ID06-LVP						
ID06	Tomography		In progress			
BM08						
ID09						
ID10						
ID11	Tomography		In progress			
ID12						
ID13						
BM14						
BM15A						
BM15B						
ID16A-NI	Fluo, Tomo		Implemented		Implemented	
ID16B-NA	Fluo,Tomo		In progress			
ID17	MRT, Tomography		Implemented			
ID18						
ID19	Tomography		In progress			
ID20						
ID21	Diffraction		In progress			
ID22						
ID23-1	MX		In progress			
ID23-2						
BM23						
ID24						
BM25A						
BM25B						
ID26			In progress			
BM26A						
BM26B						
ID27						
ID28						
BM28						
ID29	MX		Implemented			
BM29	BIOSAXS		Implemented			
ID30A-1	MX		Implemented			
ID30A-3	MX		Implemented		Implemented	
ID30B	MX		Implemented			
BM30A						
BM30B						
ID31						
ID32			In progress			
BM32						

Rich Metadata in ICAT + HDF5
(following Nexus conventions)

- technique_name
- InstrumentSource_mode
- InstrumentSource_current
- InstrumentInsertionDevice_gap_value
- InstrumentInsertionDevice_taper_value
- Sample_description
- InstrumentMonochromator_wavelength
- InstrumentMonochromatorCrystal_usage
- InstrumentMonochromatorCrystal_d_spacing
- InstrumentMonochromatorCrystal_type
- InstrumentMonochromatorCrystal_reflection
- InstrumentSlitPrimary_vertical_gap
- InstrumentSlitPrimary_vertical_offset
- InstrumentSlitPrimary_horizontal_gap
- InstrumentSlitPrimary_horizontal_offset

- InstrumentSlitPrimary_blade_up
- InstrumentSlitPrimary_blade_down
- InstrumentSlitPrimary_blade_front
- InstrumentSlitPrimary_blade_back
- InstrumentSlitSecondary_vertical_gap
- InstrumentSlitSecondary_vertical_offset
- InstrumentSlitSecondary_horizontal_gap
- InstrumentSlitSecondary_horizontal_offset
- InstrumentSlitSecondary_blade_up
- InstrumentSlitSecondary_blade_down
- InstrumentSlitSecondary_blade_front
- InstrumentSlitSecondary_blade_back
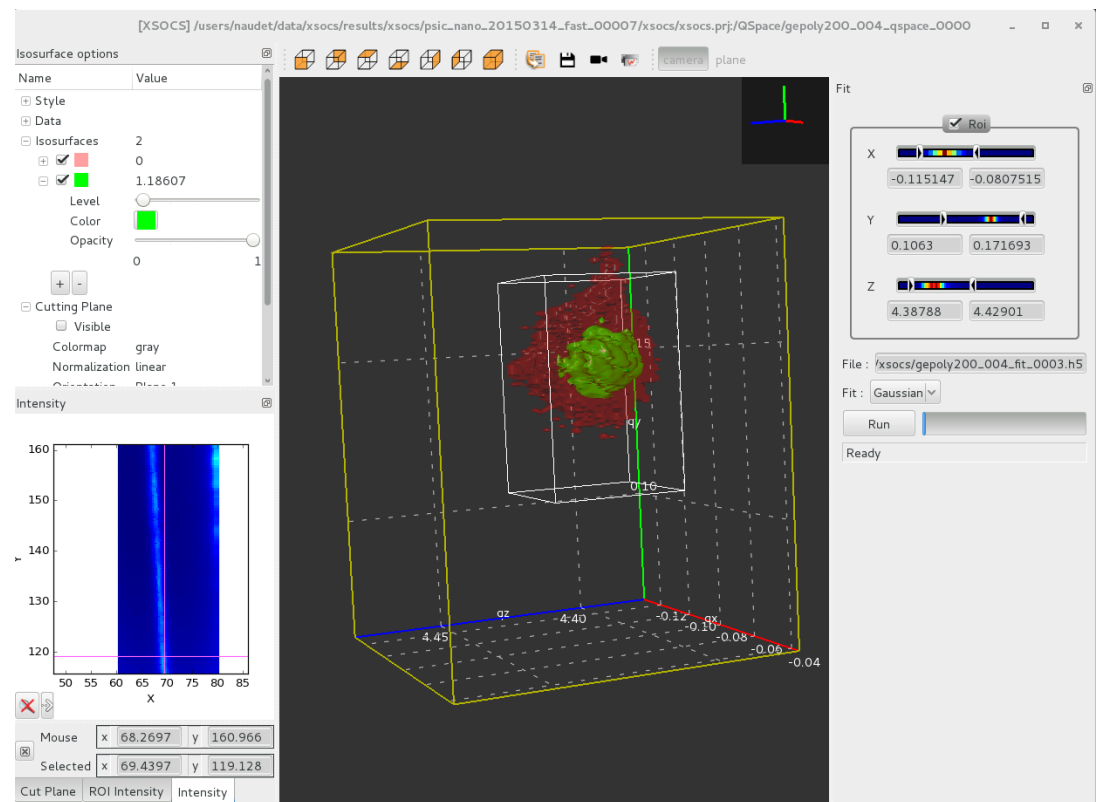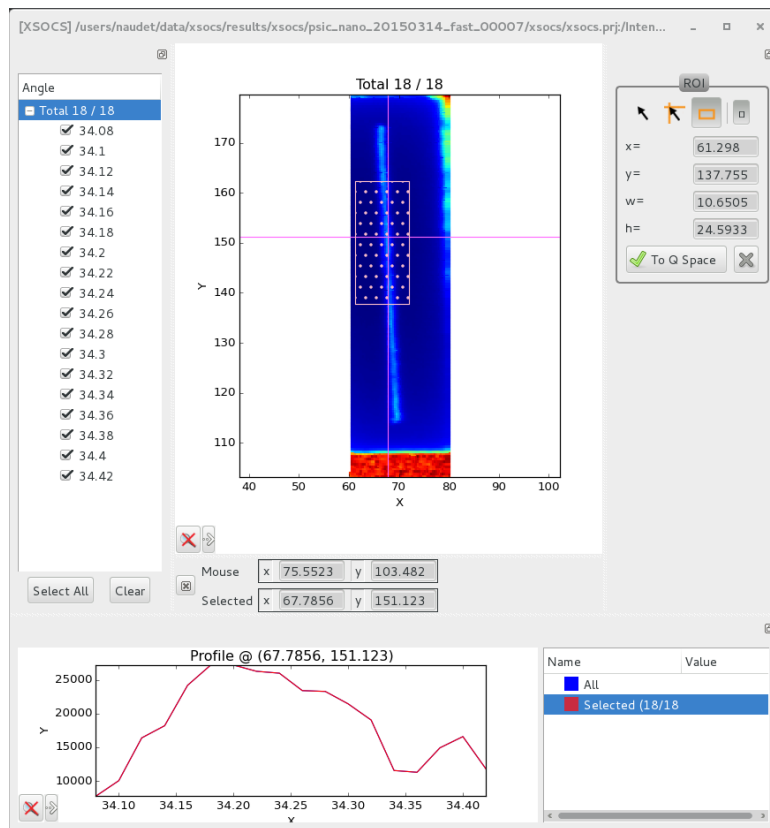- InstrumentSlits_vertical_gap

Silx library

- Python Library to serve as platform for scientific applications for photon science

- Planned to invest 20 years FTE, 5 invested since 2016

- Main library : https://pythonhosted.org/silx/

- Fourth release 0.4.0 includes HDF5 + 3D support

- More and more applications building on silx e.g. XSOCS, Scarpy, PyFai, PyMca, Fabio, …

- Checkout : https://github.com/silx-kit/silx

- Slides from training held at ALBA last month : https://cloud.esrf.fr/index.php/s/c3QwF9meYlOA8KB

Other projects

- NFFA – metadata + data analysis (XSOCS)

- Calypsoplus – kickoff May 2017

- NeXT – submitted to EINFRA-21

- PaNDaaS – resubmission in 2018 (?)

- LEAPS – IT work package for Photon Sources for the next N years

XSOCS – nanostrain scanning

- Example of improving existing scientific software by **orders of magnitude ...**

Job – ESRF is looking for Data Manager #2