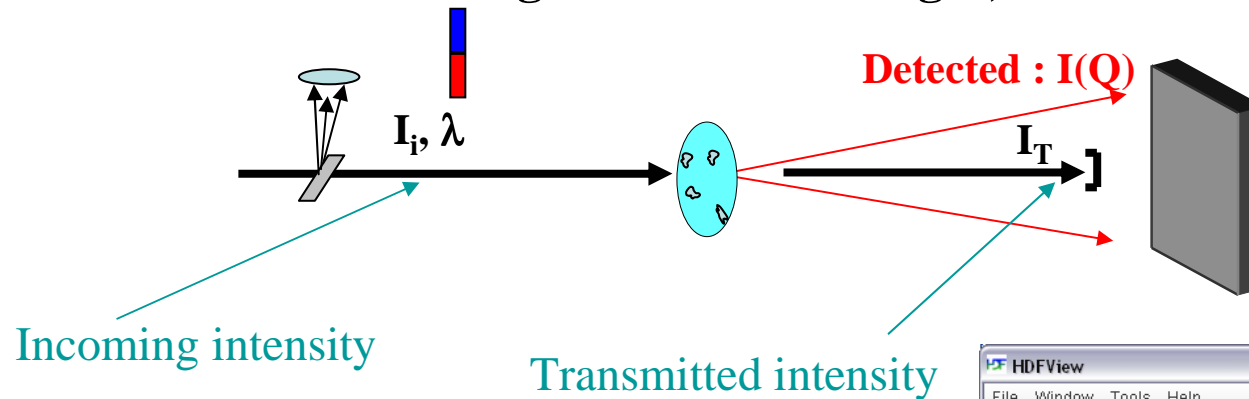# SAXS data format and data handling needs at Soleil
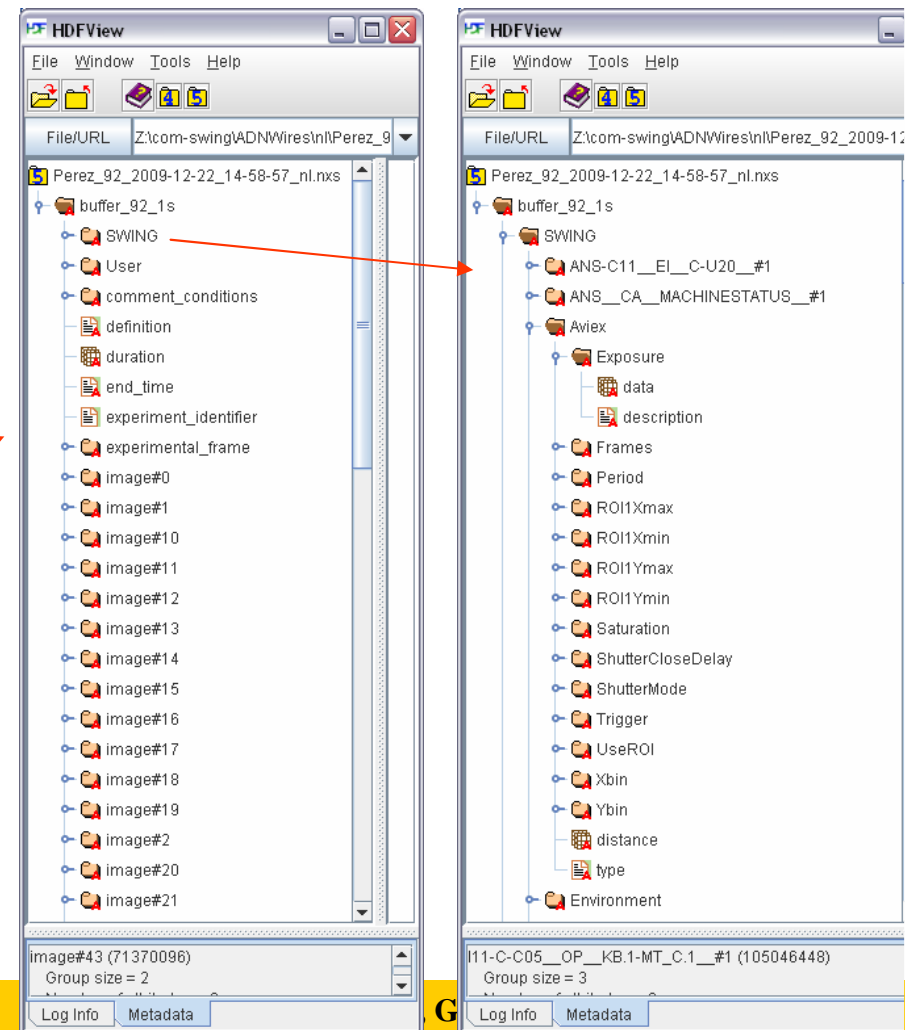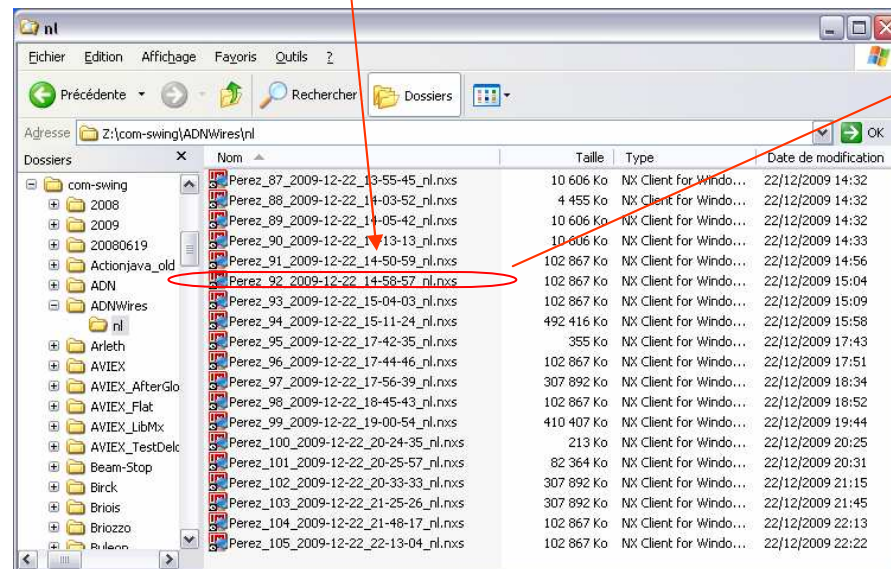
Javier Pérez

SWING Beamline

Synchrotron SOLEIL

Saint-Aubin, France

NeXus : data storage format for images, intensities and contextual data

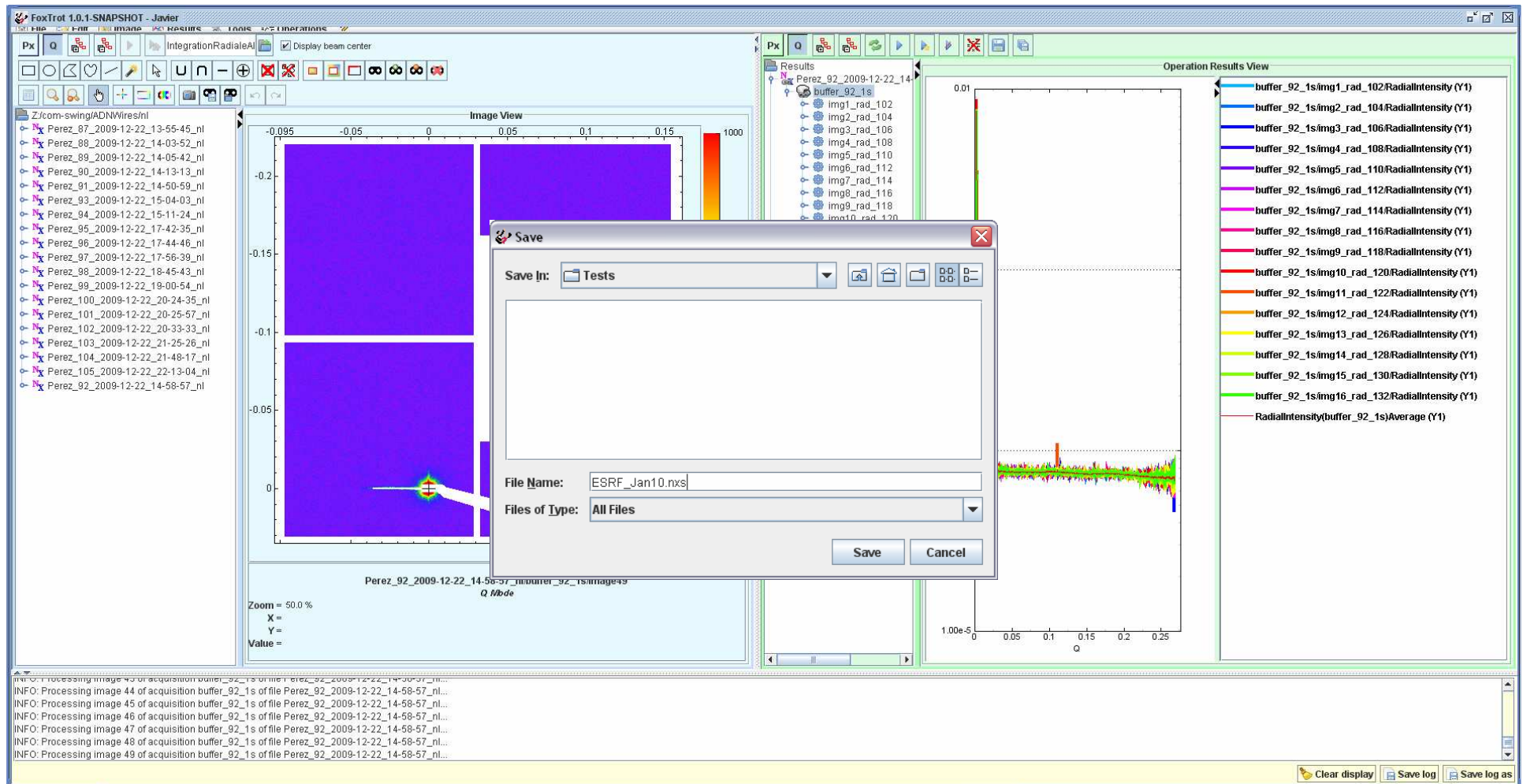**Detected : I(Q)**

Incoming intensity

Transmitted intensity

- Several images are collected for each given sample
- Monitoring intensities are also collected for each image
- A single NeXus file is generated for the whole sequence

Foxtrot : Graphical Application (Java) for Data reduction and first analysis

- Mask, 2D → 1D Radial averaging, Frame averaging, Frame subtraction
- Determination of Guinier parameters (I0, Rg)
- Macro language

Output from Foxtrot : NeXus file + ASCII files to comply with users needs

Am I happy ? Not completely

- I also want to use Foxtrot with data coming from other facilities
- But : I don't want to change Foxtrot code for each new different format

- I also want to use other applications (e.g. fit2D) on my own data
- But : I don't want to change my data format for each new interesting application

A possible solution : Common data format

- Long process : Convince each facility to change its own data format !
- Limited to future : You cannot access old data which don't have the common format

Meanwhile, alternative solution : Explain your own present data format

- Each facility should provide a plug-in that describes its own data format
- Each plug-in would define common simple functions (e.g. Getdata(« typeOfData »))
- Each application would have to implement these simple functions → ONLY ONCE

Light and progressive solution