UNIVERSITY OF HULL

SaVvy : STIR visualisation application

Dr. Nikos Efthimiou,
University of Hull

UNIVERSITY
OF HULL

Motivation

- STIR data visualisation classes is out-of-date
  - X11 is replaced by Wayland
- There is a number of viewers in medical imaging but none supports projection data
- Matlab (or Python) scripts get messy over time.
- Fiji can be an option, but the navigation is very complicated

UNIVERSITY
OF HULL

Supporting data

- Arrays<1>, <2>, <3>
- ExamData
  - Discretised density (VoxelsOnCartesianGrid)
  - ProjData
- Uses STIR IO and buildblock
- The shapes are used for selections
- The ray tracers is used for line profiles

UNIVERSITY
OF HULL

Simple processing in place

- Ability to perform simple image and data manipulations (using stir_math)
- Point operations on the images
- Profiles and ROIs (partially supported)

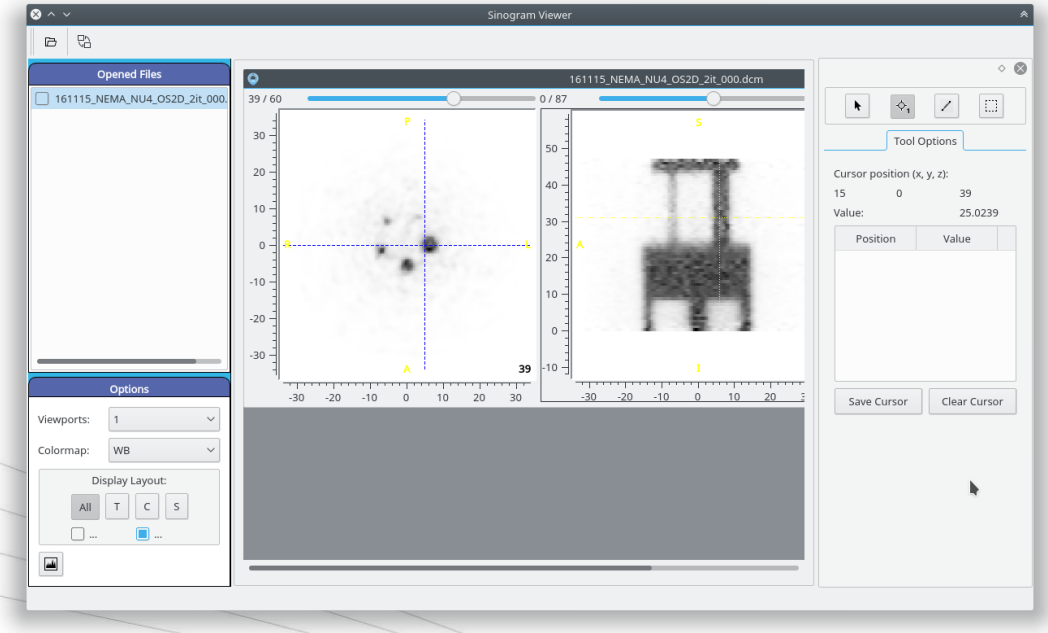
UNIVERSITY
OF HULL

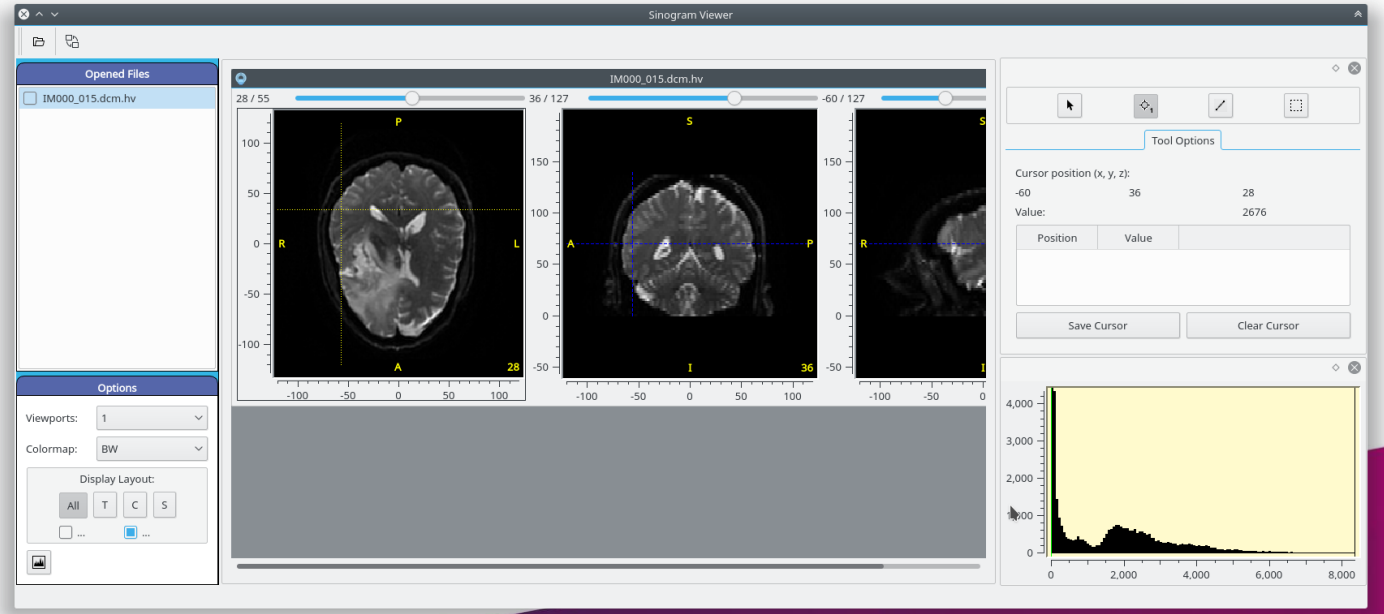
Implementation

- Object oriented QT5/C++ programming
  - Programming style highly influenced by STIR
- Extendable with plugins using the QT plugins interface.
  - Simple access to Workspace which hold all data and images.
  - First plugins:
    - Image Segmentation
    - DWI imaging
- Heads up: A modified version of STIR is needed.

UNIVERSITY OF HULL

As an image viewer:





UNIVERSITY
OF HULL

As a data viewer https://www.youtube.com/watch?time_continue=1&v=OuMblfBKzws: