EUROPEAN SPALLATION SOURCE

Mantid – McStas Exercise

Torben Nielsen

Peter Willendrup

www.europeanspallationsource.se

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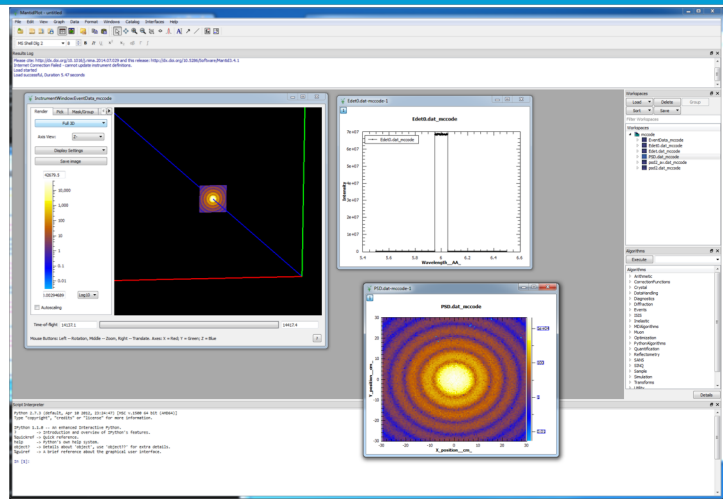
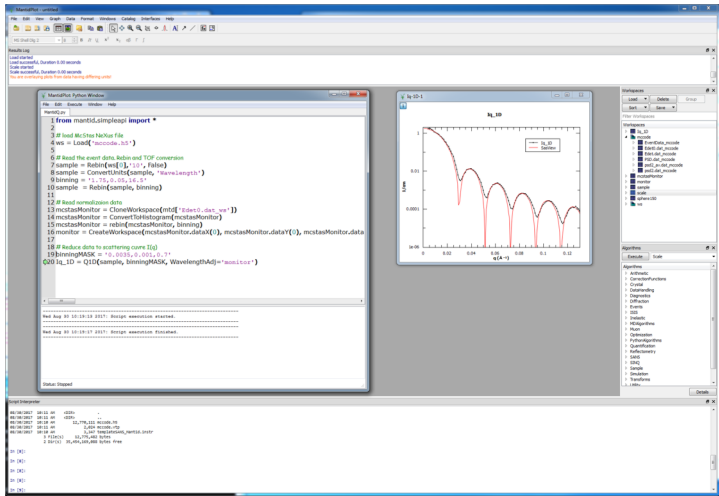
Exercise 1:

https://github.com/McStasMcXtrace/McCode/wiki/McStas-and-Mantid

- Reproduce the SANS results shown on the wiki page in section 8: ”MantidPlot view of McStas event data” and section 9: “Mantid reduction of McStas event data”



- **Step one:** Convert templateSANS.instr to a Mantid compatible version templateSANS_Mantid.instr
- **Step two:** Run the simulation and load data into Mantid
- **Step three:** Derive I(q) and compare to SasView data

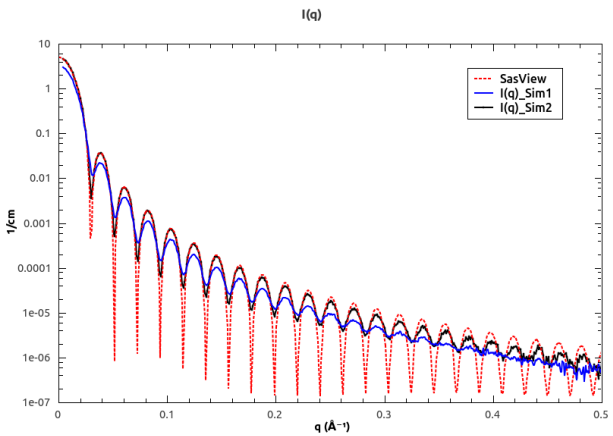


Exercise 2

- Reproduce the SANS results shown on the wiki page in section 10: ” ISIS SANS2D”

- Go to the wiki-page: https://github.com/McStasMcXtrace/McCode/wiki/McStas-and-Mantid#isis-sans2d

- Reproduce data shown in Figure 8:



- Copy folder:
- /nfs/www/html/users/troland/nexus_local
- to your home dir

- cp –r /nfs/www/html/users/troland/nexus_local .
- cd nexus_local
- more how-to-run.txt

Lots of text in how-to-use.txt file

- # compile for mpi
- run

- # Mantid
- open new terminal
- go to same node

- # Load Mantid
- module load mantid/5.1.1

- # mantid reduction
- mantidpython MantidQ.py

- # Back on McStas client
- python plot_Iq.py

- # use model nr5: spheres 25 AA
- # use model nr6: spheres 500 AA
- # use model nr15: spheres 150 AA
- # change pinhole S6,A2 -> 0.001
- # do we see any change