SASVIEW

Small Angle Scattering Analysis Toolkit

Agenda

1. Debunk the myth of the SasView project
2. Some project history
3. CURRENT status of the project and how everyone here has a part to play
4. A review of the relatively rich resources available in the SasView universe
5. Answers to a few questions received

Reality check

Myth:
SasView is a well-funded, professionally run organization and project

Reality:
- There is no official "organization"
- Usually no explicit funding
- Few if any whose job specifically requires them to work on SasView

The volunteer army

2. Some History

Some History

- 2006; originates in NSF *DANSE* project as SansView
- 2013; transitions into a community project
  - First Code camp at NIST April 2013
- 2015; move to github and release 3.0
- 2015; rename to SasView – Words matter
- 2016; Sine2020 project funded through ESS
- 2016; release 4.0 in October
- 2019; release 5.0 in May
- 2020; Essentially a “volunteer army”
- 2020 – PANDEMIC
- 2024; release 6.0

Pictures from Camps: VI, VIII, X, XII

www.sasview.org

Some History

SINCE TRANSITIONING TO THE COMMUNITY

- Code camps: every year (twice in 2016, 2017)
  - NIST, ISIS, ESS(DMSC), Delft, SNS,ILL/ESRF, ESS/DMSC, ESS/Lund, ILL/ESRF,
- 2020 = Caltech code camp cancelled due o pandemic
- Small camps 2022 and 2023 (poland; ISIS)
- 2023; Rebranded to Contributor Camp – Words matter
- Jan 2024 Contributor camp at U. Del.

Pictures from Camps: VI, VIII, X, XII

www.sasview.org

3. Current Status

Current Status of SasView

- 80+ contributors from 15 organizations, including 6 Universities so far and growing (~10-15 active at any one time)
- 1 to 2 releases/year (6.1.1 JUST RELEASED)
- Documentation/tutorial projects ongoing
- Usage? Seems to be "everywhere?"
- Lots of "complements" (a bit scary)
- Publications? > 100/year ?

SasView is an aspirational project

Pictures from Camps: VI, VIII, X, XII

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The SasView Aproach

An
"open, collaborative, community development"
platform for
Small Angle Scattering Data Analysis

Open, Collaborative, Community **Development**

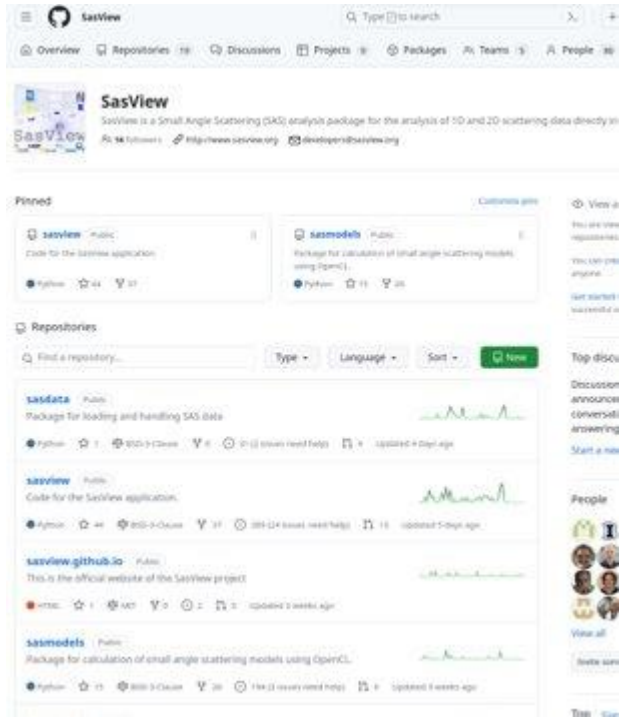
Code is open source and publicly hosted at Github

Released under BSD 3-clause license

(Zenodo) DOI for **each release**

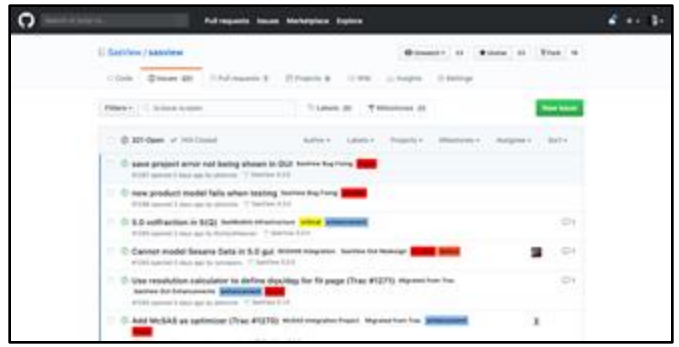
Rolling **5 Year Roadmap**

Code Hosting, Issue Tracking, Developer Wiki & CI on



https://github.com/SasView

https://www.sasview.org



python™

matplotlib

Open, Collaborative, Community Development

- Twice monthly zoom calls
- Regular ‘camps’ & ‘hackathons’
- Developer's mailing list
- SasView slack
- Expertise sharing and helping
- Small leadership team to facilitate

Collaboration also builds Community

http://www.sasview.org

http://github.com/SasView

Community Development Rules

No MOU … all are invited and welcome

Two Basic Rules:

- Those who bring the resources (time, effort, funds) choose what to work on
- but cannot break existing experiences …

What will SasView do in the future?

The community needs you

Whatever the community contributes. (That's YOU)

Ask not what the community is going to do for you, ask what you can do for the community

Contributing to SasView

You don't have to be coding ninja to contribute!

- Respond to queries posted to help@sasview.org or github
- Teach others how to get the best from SasView
- Write and improve documentation
- Write and record tutorials
- Test SasView (over and over!) and write bug reports
- Provide new plugin models
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- Develop code in Python3/C and PySide2/Matplotlib
- Server and Github admin task
- Develop/improve databases (e.g. marketplace) etc.

www.sasview.org/contribute

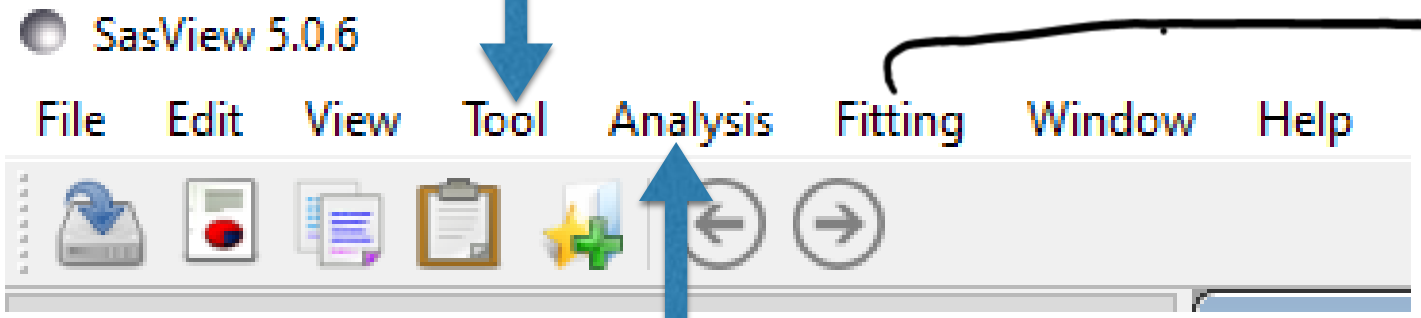
4. A review of resources

SasView Toolkit for SAS data Analysis

Tools

- Data Operation
- SLD calculator
- Density/Volume calculator
- Slit Size Calculator
- Kiessig Thickness Calculator
- Q Resolution Estimator
- Generic Scattering calculator
- Orientation Viewer
- Python Shell/Editor
- Image Viewer
- File Converter

Perspectives on the data

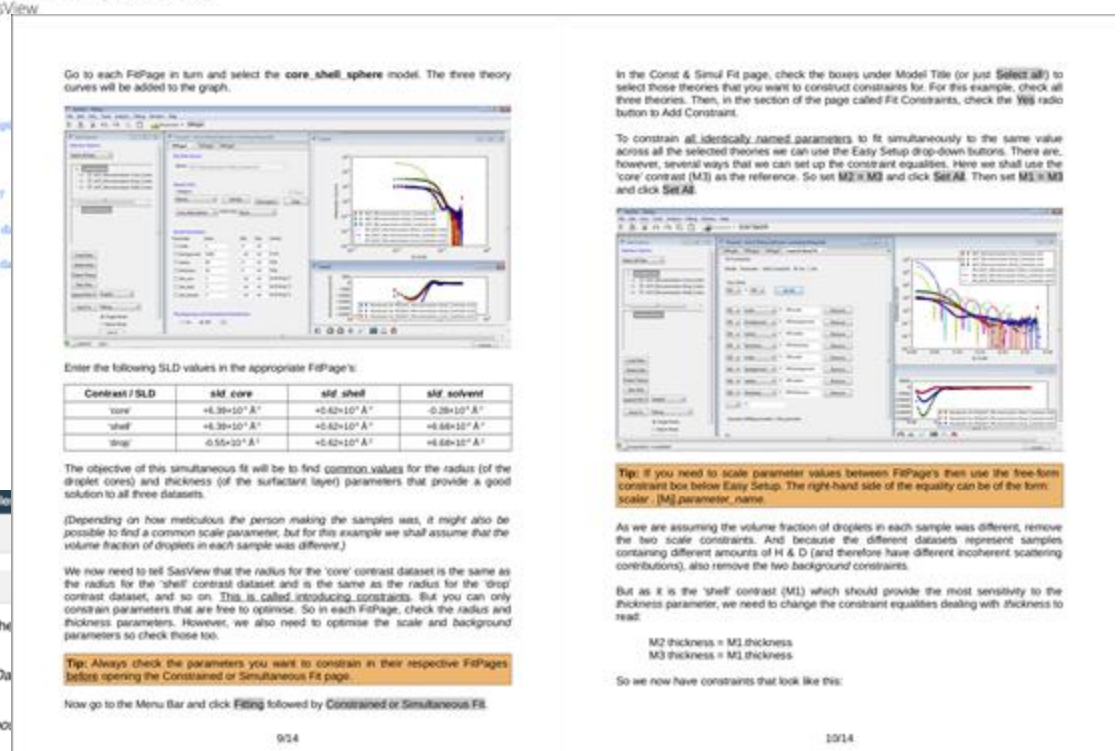


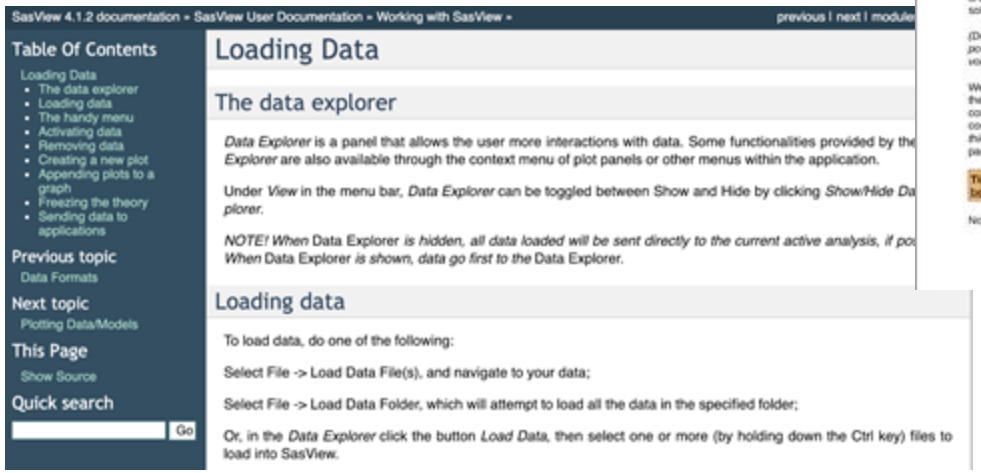
Analaysis

- Fitting
- Invariant
- Pr Inversion
- Correlation Function

Resources, Education & Outreach

- Website
- Documentation
- Written Tutorials
- Video Tutorials (YouTube)
- Taught courses
  - Scattering schools
  - University courses
- E-learning
- ~~Twitter~~ Linkedin
- Slack
- Mailing Lists
- Bootcamps & Regional Workshops
- (Marketplace)





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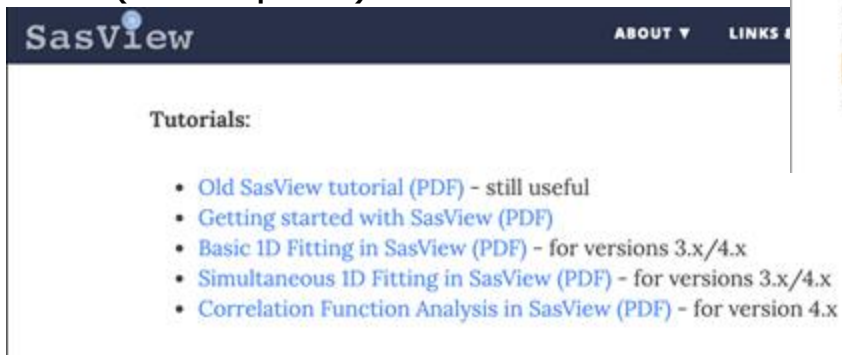

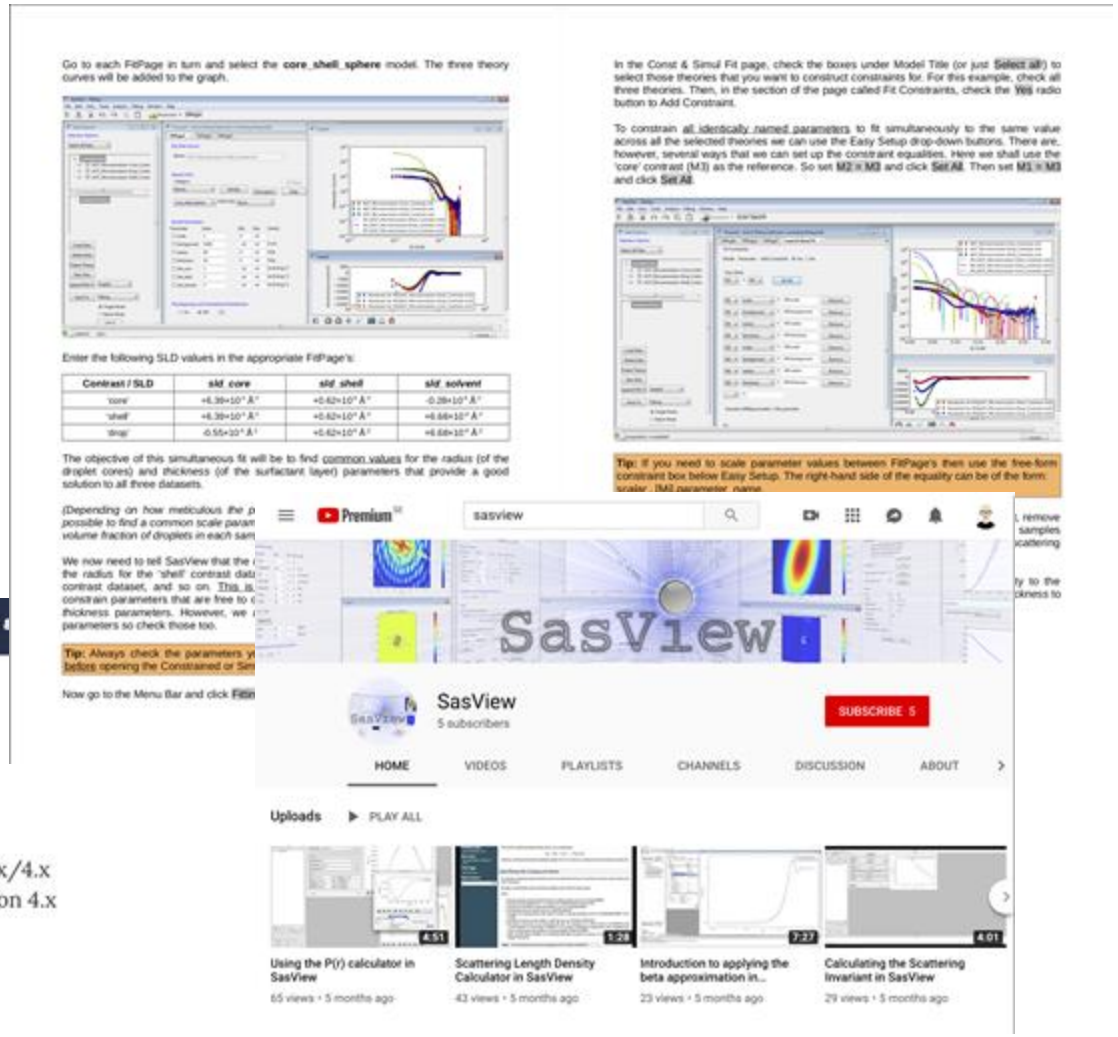

Resources, Education & Outreach

There are a lot and you may forget where to find them

- Website
- Documentation
- FAQ
- Written Tutorials
- Video Tutorials (YouTube)
- E-learning
- ~~Twitter~~ Linkedin

- Slack
- Help and User lists
- Developer lists
- Bootcamps & Regional Workshops
- Model Marketplace
- Github: code, wiki, issues and discussions

ONE LINK TO RULE THEM ALL

www.sasview.org

5. Answers to a few pre-posed questions

RESPONSE TO SOME QUESTIONS

QUESTION:

Is it possible to convert nm^{-1} into $Angstrom^{-1}$

RESPONSE TO SOME QUESTIONS

QUESTION:

- How can I fit SAS data sequentially with specific parameters varying
- How can I then plot of that parameter w.r.t file number etc

RESPONSE TO SOME QUESTIONS

QUESTION:

How can I co-refine SANS and SAXS data (fitting one model simultaneously to SAXS and SANS data?)

RESPONSE TO SOME QUESTIONS

QUESTION:

OTHERS: ……..

ContributorCampXIV

Paul Butler edited this page last week · 30 revisions

Contributor Camp XIV Planning

Where and When

November 11-17 2025 at the Technical University of Munich

The fourteenth SasView Contributor Camp (formerly known ... held in Garching, Germany, starting Nov 10 on the Technical University of Munich (TUM) cam... the Heinz Maier-Leibnitz Zentrum Neutronen für Forschung und Innovation and the ESS. Th... morning of Tuesday Nov 11 through Monday afternoon Nov 17. For registration, plea... page.

ONLY ~ 2+ WEEKS AWAY

Overview

As usual, the camp wi... customary topics of addressing issues, training new contributors, adding new features, editing/adding docume... and tutorial, updating website and/or other services, and holding discussion round tables around GUI or code designs or more generally.

For this camp there will also be a serious emphasis on improving support for the hard matter community in SasView. Something to note is that many of the needs of the hard matter community are relevant to materials and soft matter communities as well, such as the ability to fit 1D data from anisotropic scattering or handling Qz properly when analyzing 2D anisotropic data. Another area of emphasis will be in improving support for the life sciences.

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