EUROPEAN
SPALLATION
SOURCE

Reflectometry Data Reduction with scipp

A collaboration with the Amor instrument

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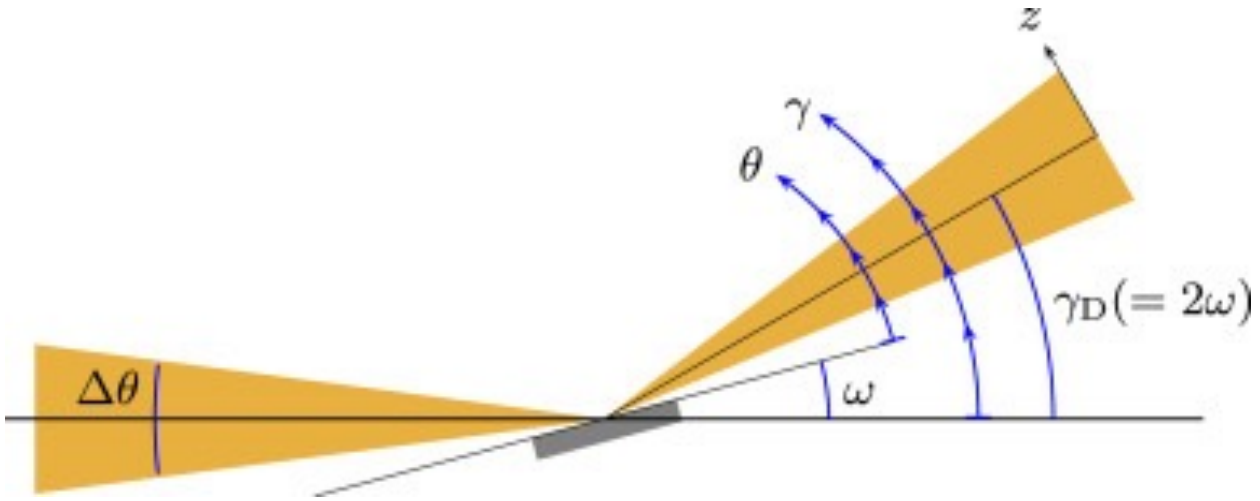
Overview

The Amor instrument at PSI is similar in many ways to the ESTIA instrument

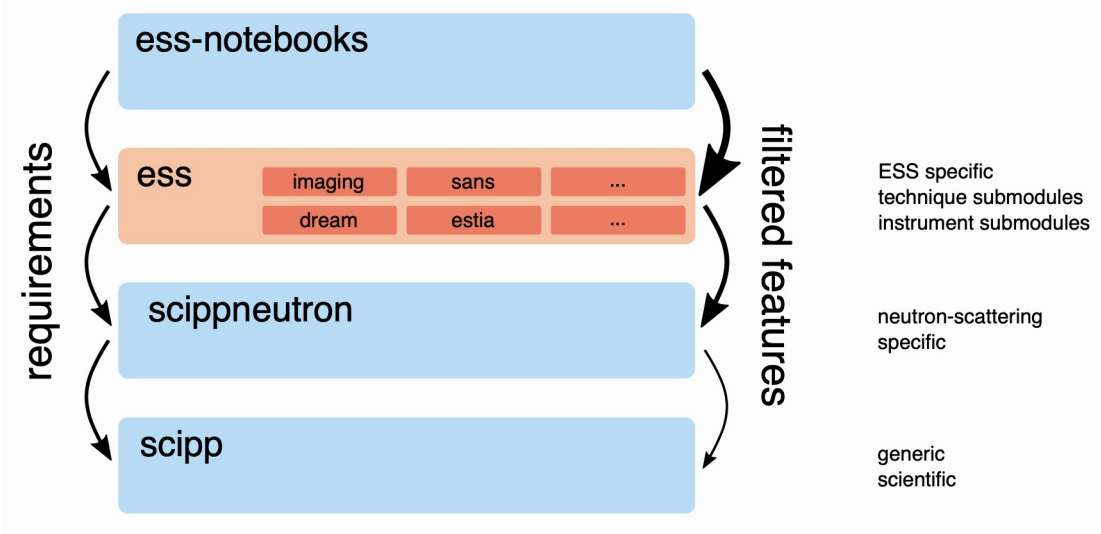
- The work to develop data reduction for Amor is part of a larger collaboration with the Amor team
- Following detector testing this month, we hope to have the scipp based data reduction tested in place at Amor



scipp

The software stack for data reduction at ESS is based on the `scipp`, `scippneutron`, and `ess` packages

- `scipp`: generic scientific functionality, such as labelled data arrays and uncertainty propagation
- `scippneutron`: neutron-specific, but facility-independent functionality
- `ess`: the building blocks from which reduction workflow will be created

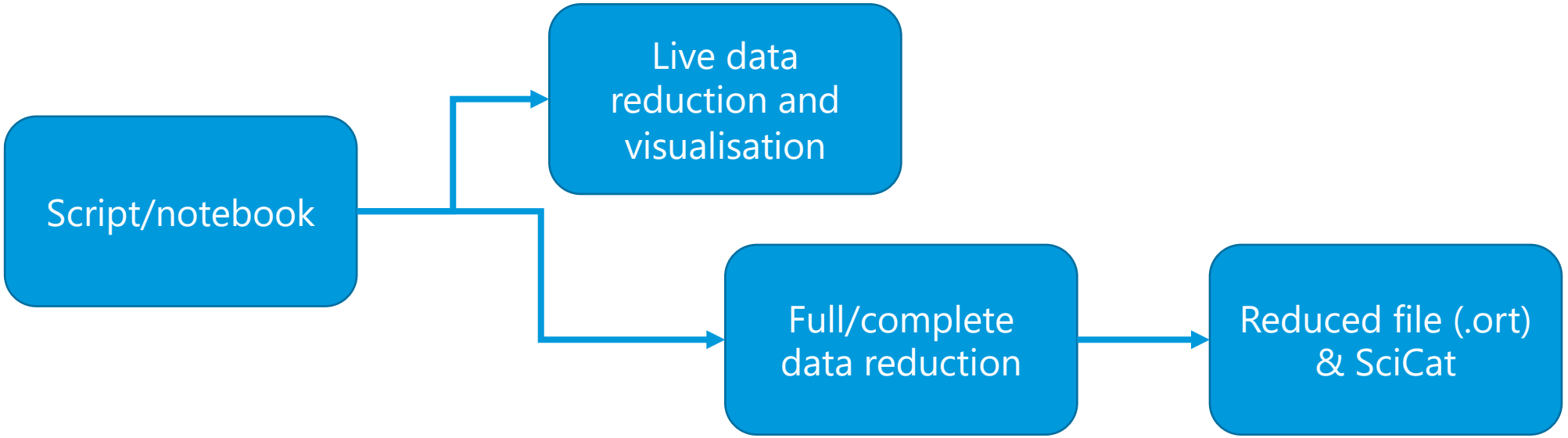


Demonstration

Live Reduction

The script/notebook for data reduction can then be used for live data reduction during experimental data collection

- This has been tested locally at the DMSC in København
- However, further testing is necessary before it can be rolled out at the Amor instrument
- Live reduction will be based on a selected script/notebook



Links

- The `scipp` package: scipp.github.io
- The `scippneutron` package: scipp.github.io/scippneutron
- The `ess` package: scipp.github.io/ess
- Transform coordinates: scipp.github.io/scippneutron/user-guide/coordinate-transformations.html

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Finish presentation