VIRTUAL ASTRONOMICAL OBSERVATORY

Iris v2.0

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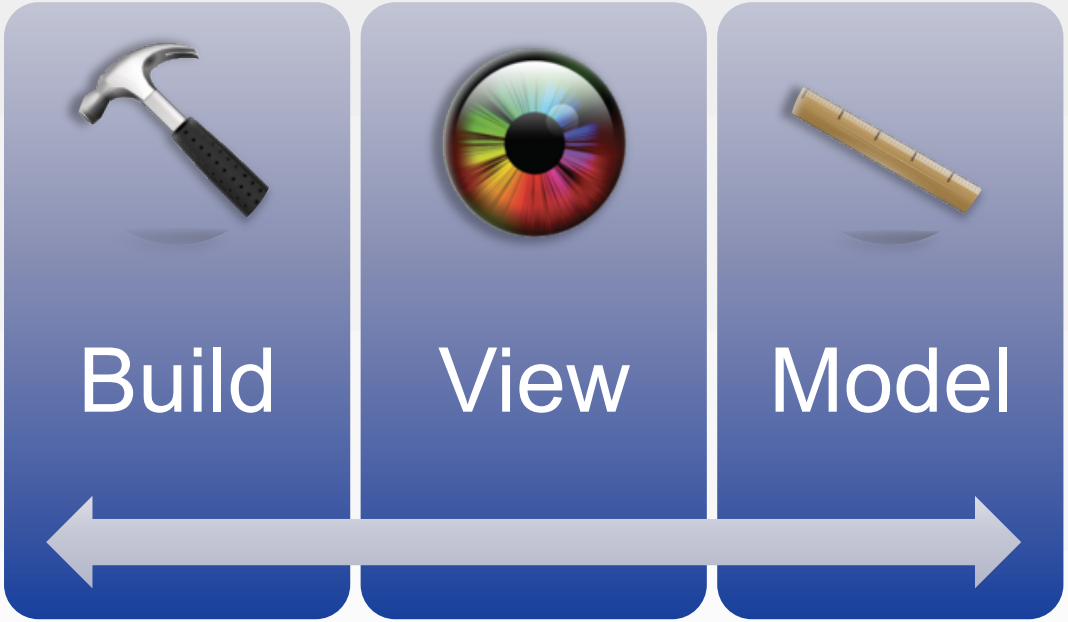
SAO, IPAC, STScI
VAO

High level view

Built-in Capabilities

- Iris provides several generic capabilities for building, editing, viewing and analyzing SEDs.



Extensions

- Iris provides a high number of possible customizations and extensions, so that specific science cases can be built on top of the basic infrastructure.

New Features

Visualization improvements

- Coplotting SEDs

Science features

- Interpolation, possibly with normalization and/or smoothing
- Red/Blue-shifting
- Integrating quantities (**using >2100 filters from SVO their fps**)

Plugins

- ASDC now shipping pre-installed in Iris

Interoperability

- Single Table output

Iris features summary

SED Builder

- Load SED Segments from File, URL
- Add/Edit/Save/Delete:
  - Photometry Points
  - Photometry Catalogs
  - Entire SEDs, Spectra
- Import non-compliant user files from many different formats
- Integrated client for NED SED service
- SAMP I/O with SED message extension

SED Viewer

- Metadata Filtering through user defined boolean expressions or interactive selection
- Display single point metadata in tree format
- Interactive Aperture Correction

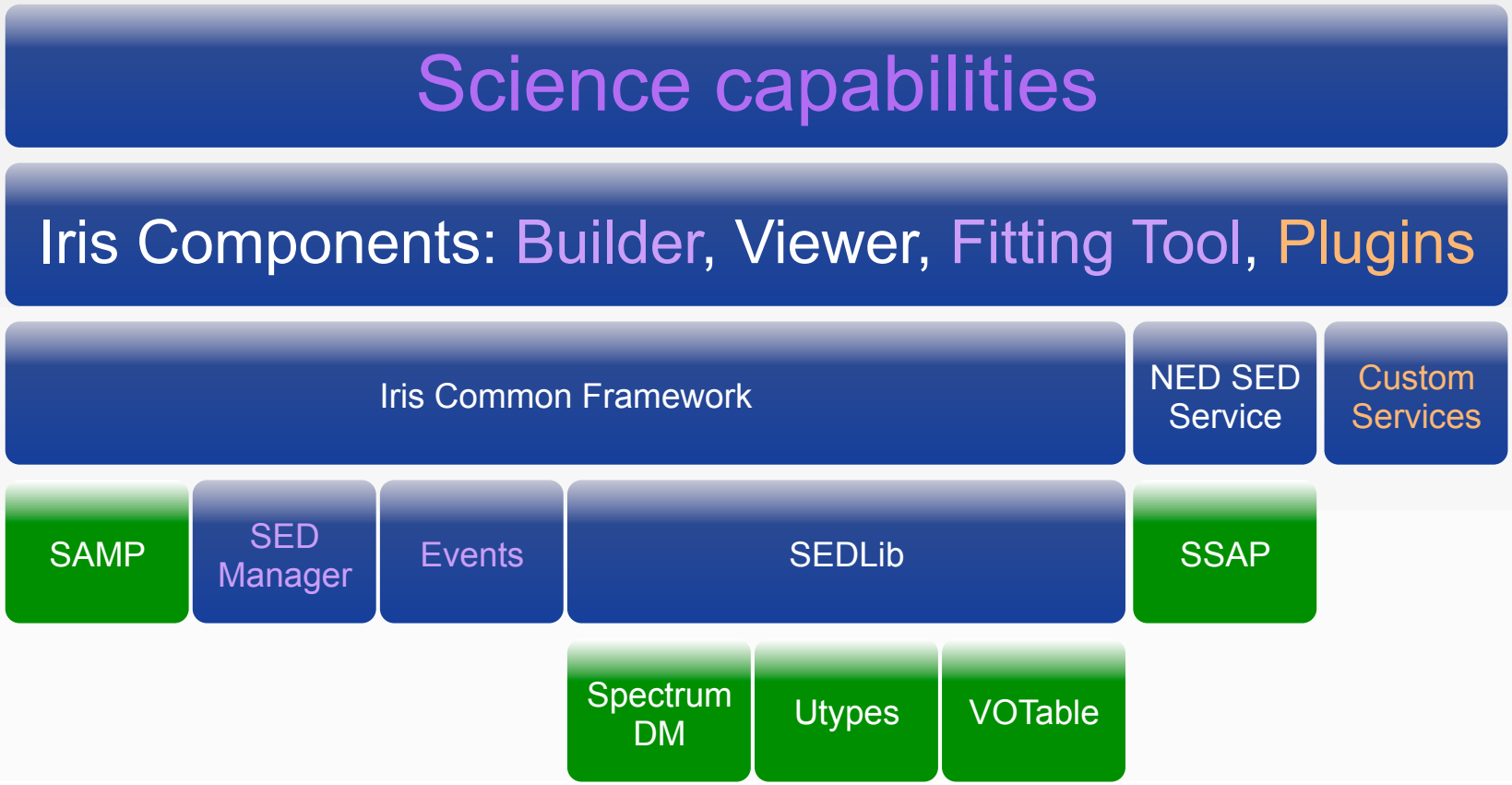
Fitting Tool

- Arbitrarily combine model components in different spectral ranges
- Compute confidence intervals for best fit parameters
- Template Fitting

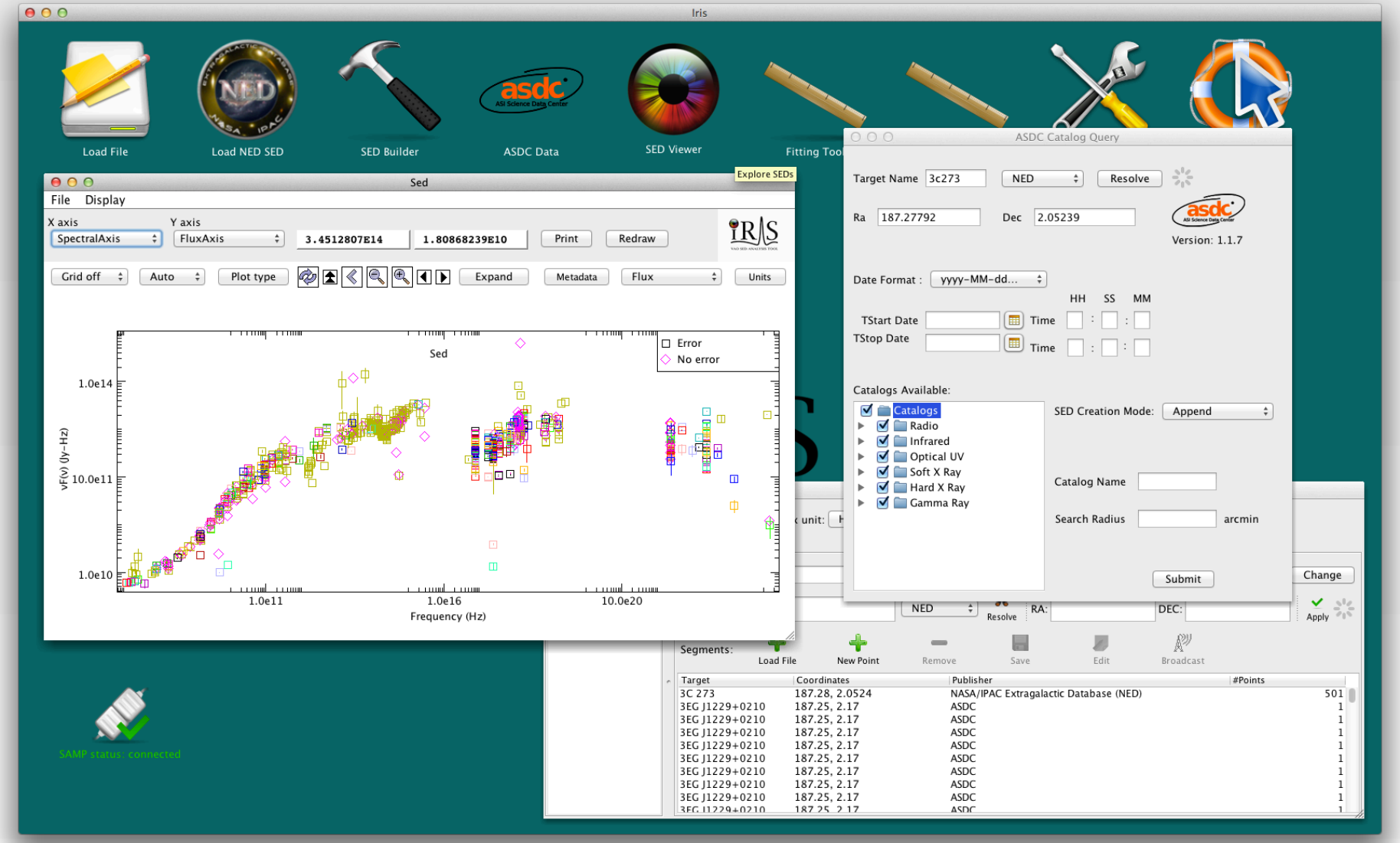
Meeting fluid requirements

Iris components stack

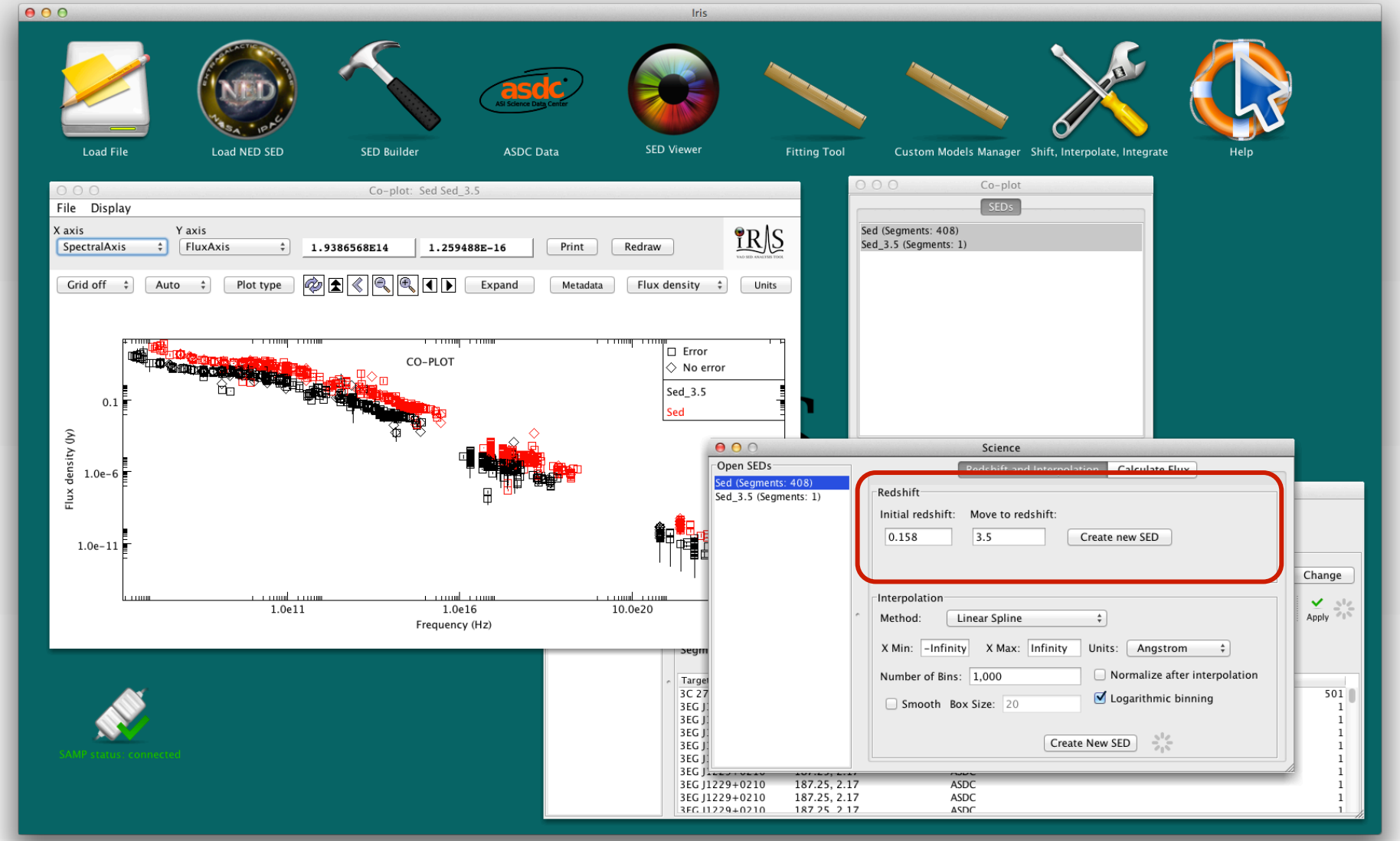
- Builds up a high-cross-section stack of tools, hiding the standards implementation layer from the science layer, in a loosely coupled extensible architecture



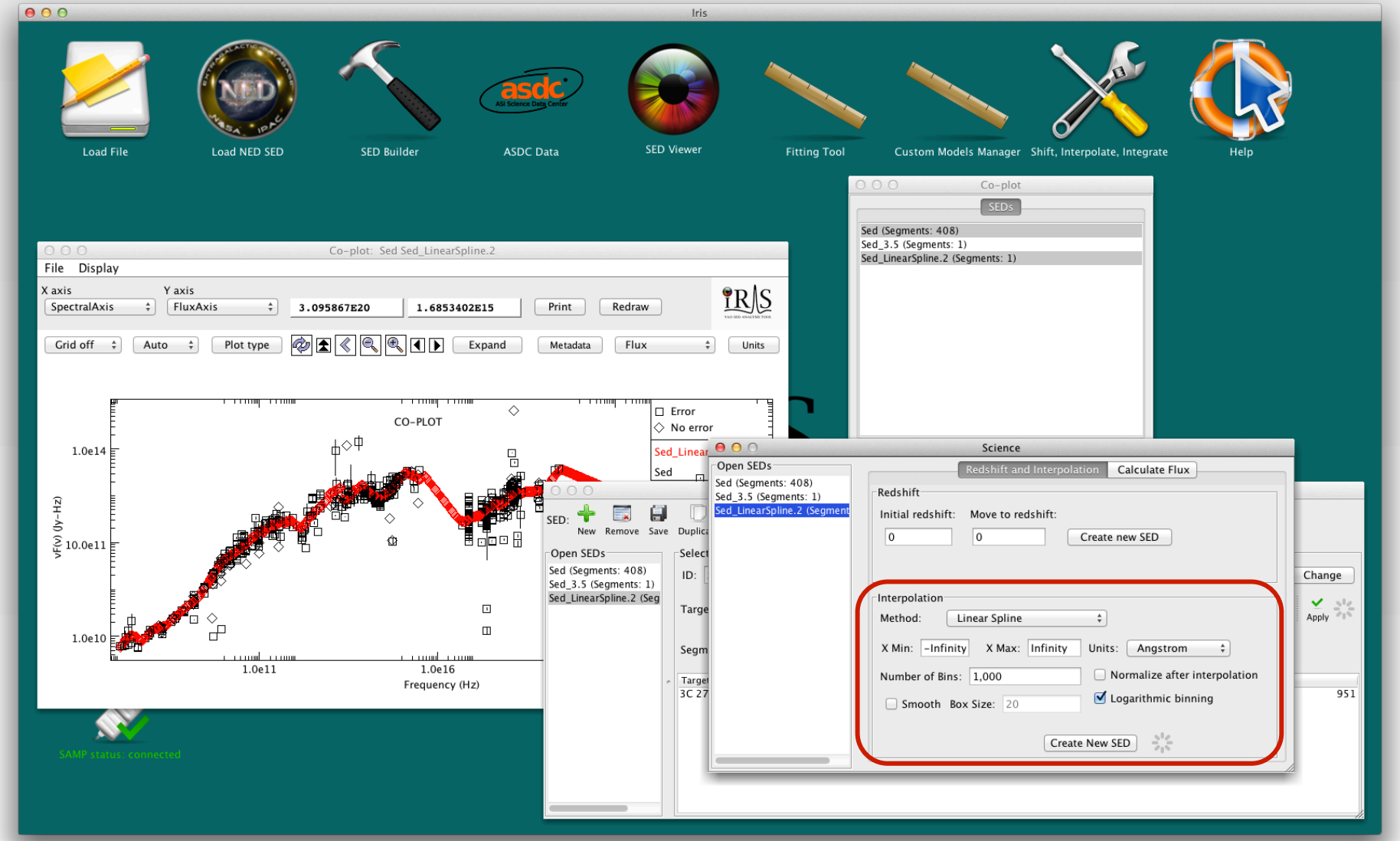
ASDC+NED embedded clients



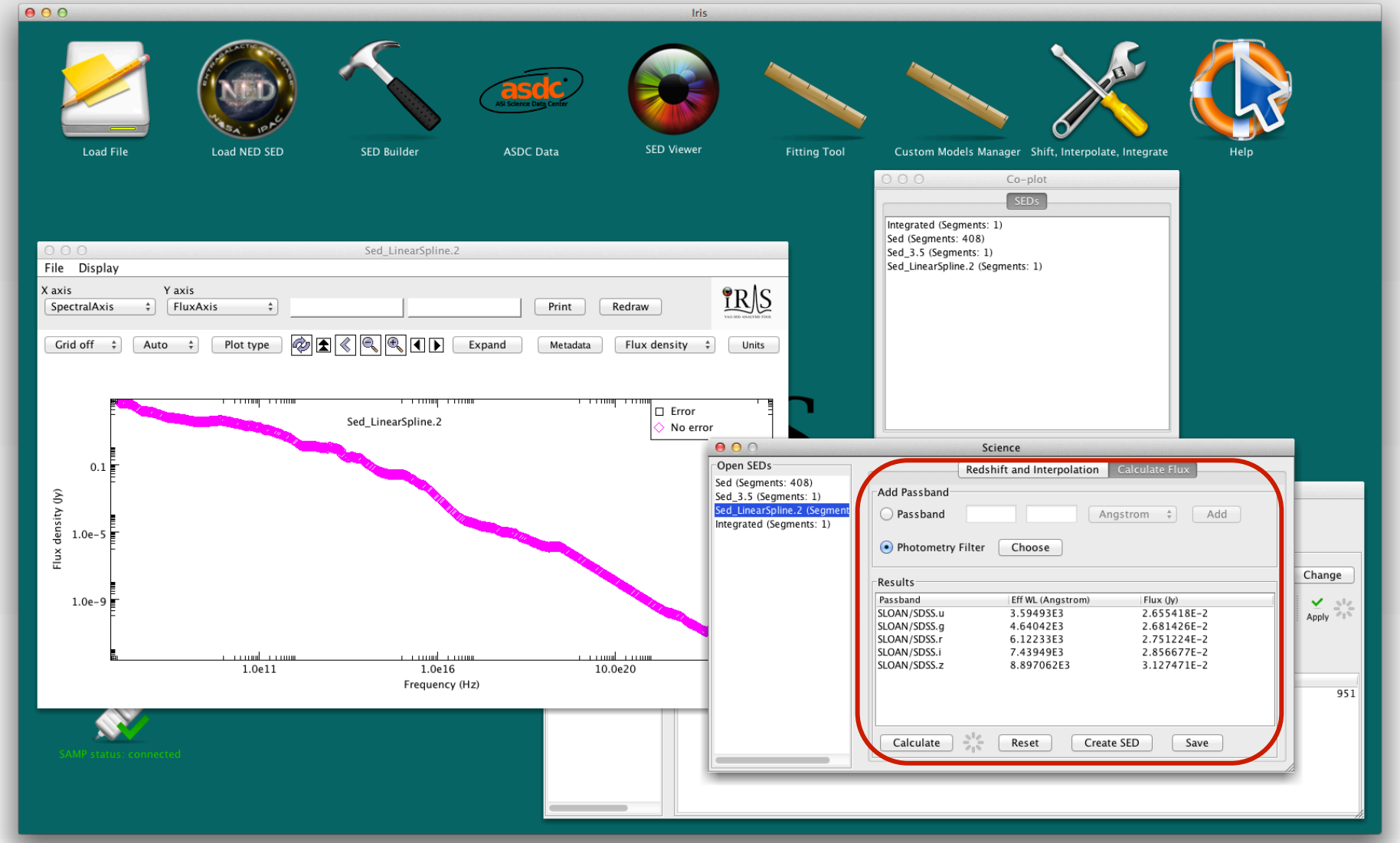
Redshift (+coplot)



Interpolation (+coplot)



Integrated fluxes



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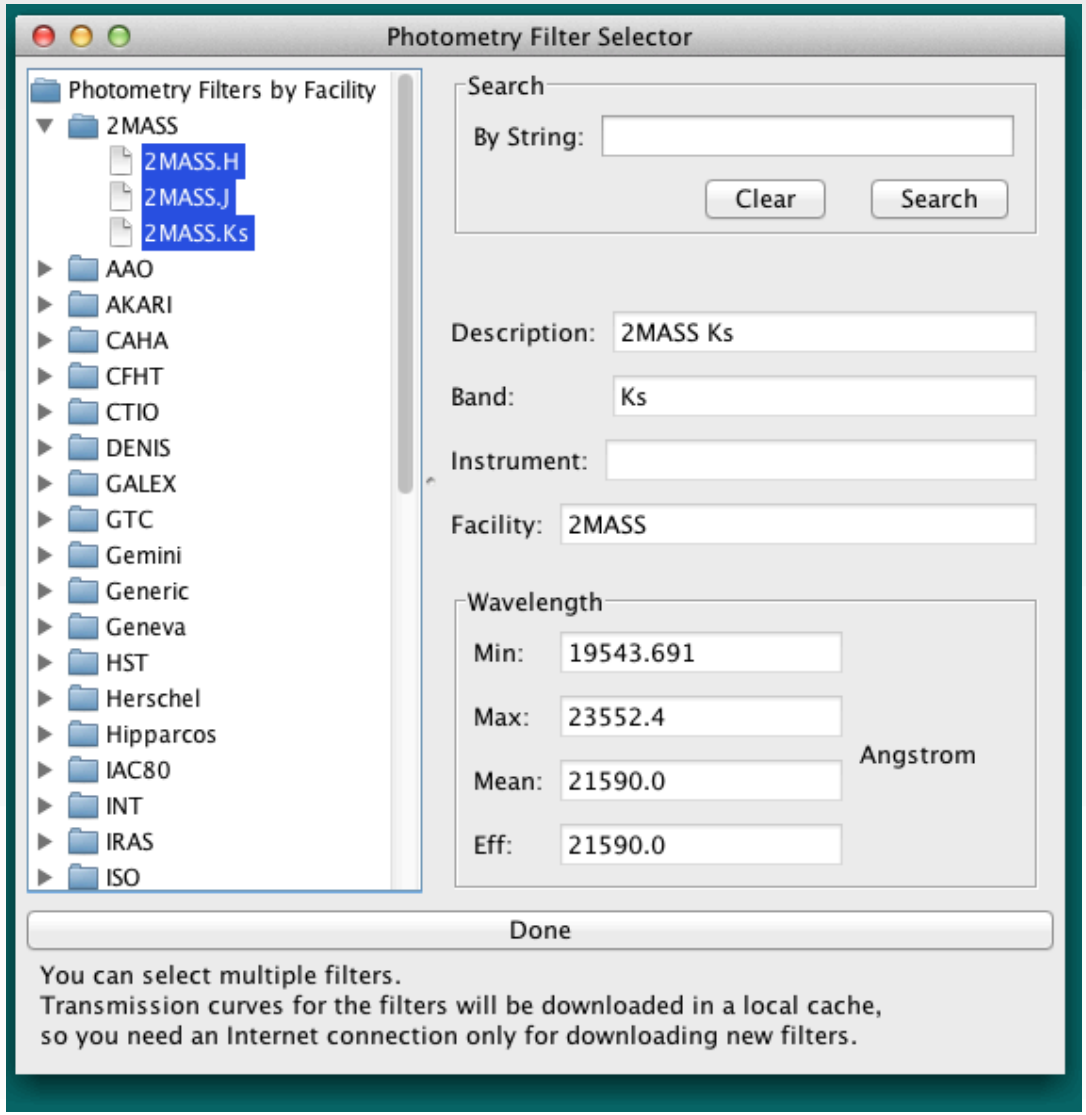

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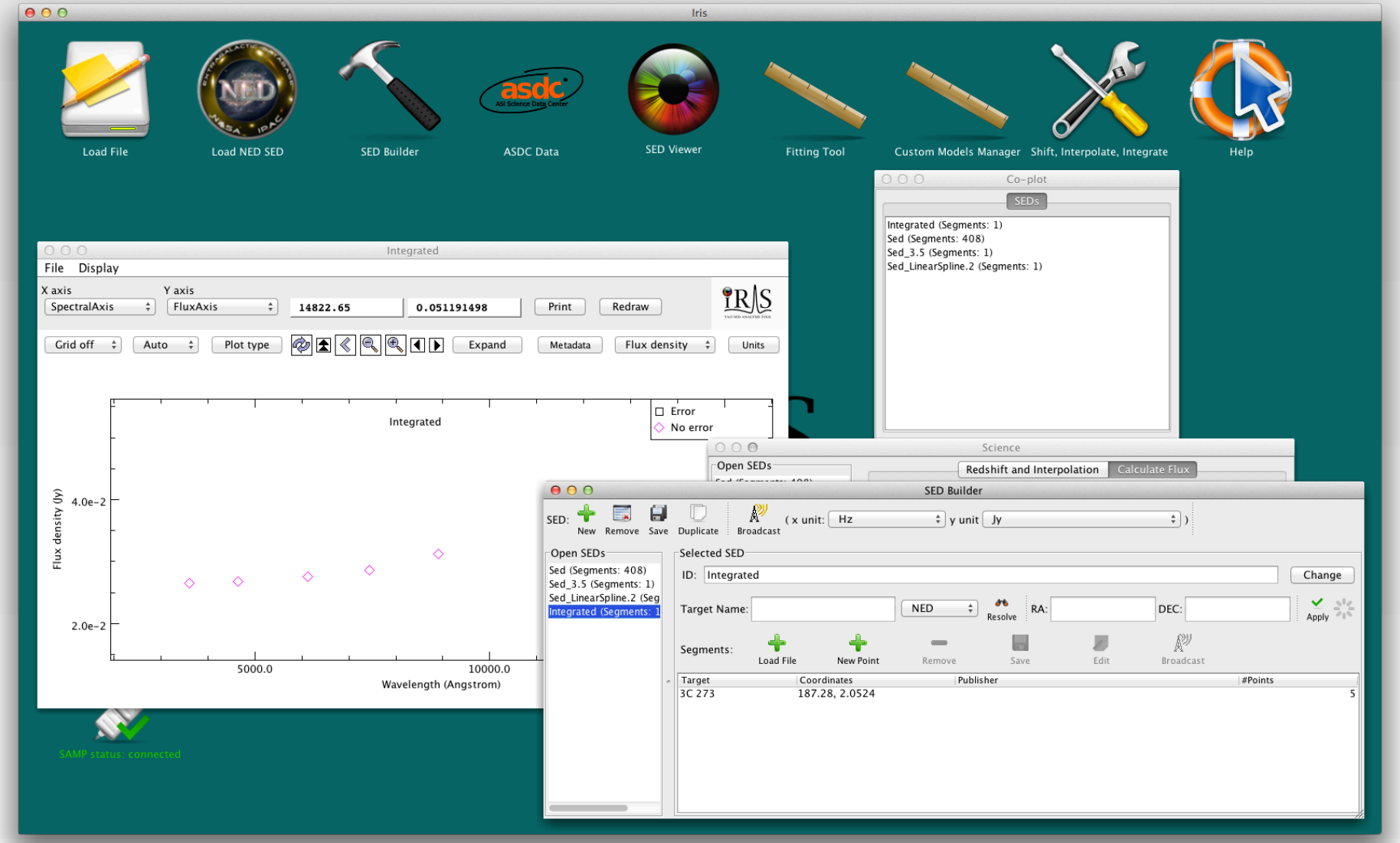
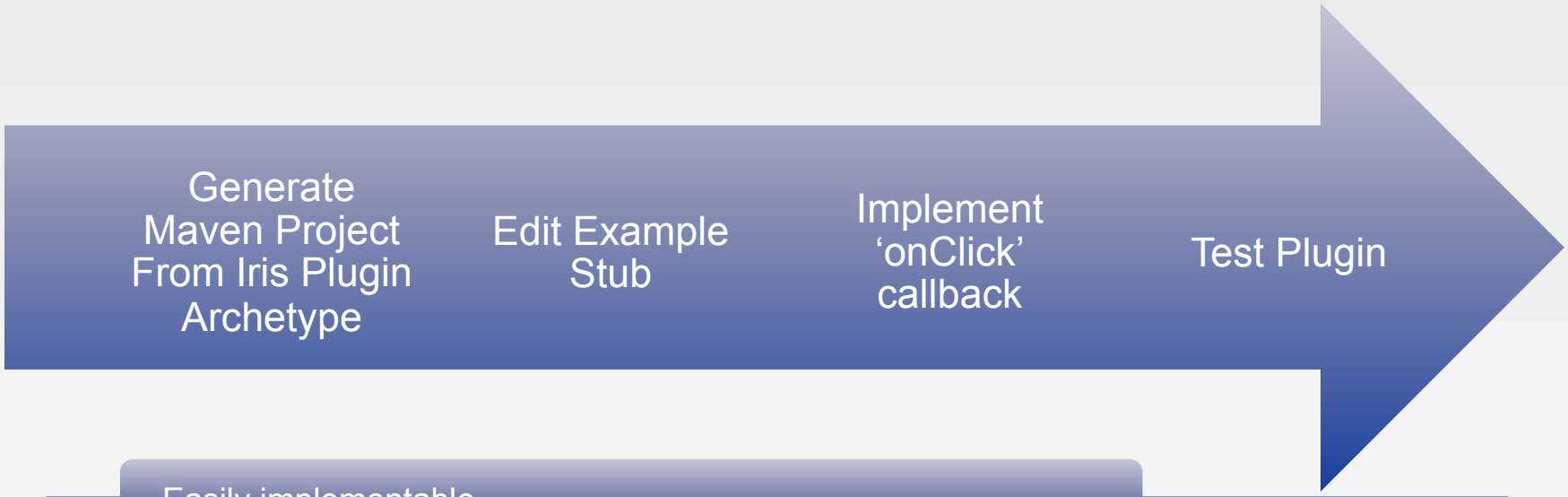


How to write Iris plugins (Java)



Easily implementable

- Example Plugin is 100 lines worth of code.

Smart dependencies

- Dependencies not already included in Iris are automatically packaged with the Plugin.

Branding

- Plugins are completely customizable and can be branded with the Provider's logo.

Future plans

Release v2.0

- Update documentation
- Release candidate: http://cxc.cfa.harvard.edu/contrib/sed/

Maintenance

- VAO is dropping science applications development, this is the final **VAO** Iris release
- Under VAO we will fix significant bugs

Post 2.0

- SAO is willing to take over, if possible
- SAO is willing to provide SED, Spectral reference implementations, but we need more mature technologies, also to save time and resources (e.g. UTYPEs/VO-DML)

Plugins are still supported!

- Assessing possible stellar SED modeling toolkit plugin
- Ongoing collaboration with ASDC for Blazar Analysis plugin