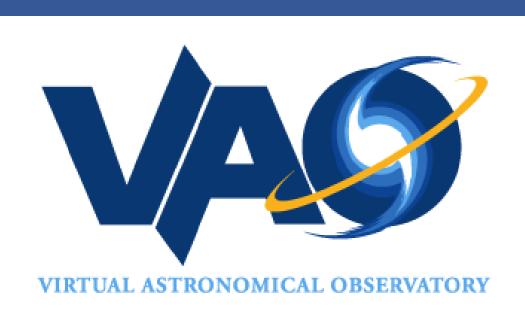
Omar Laurino, Raffaele D'Abrusco, Mark Cresitello-Dittmar, Janet Evans, Jonathan McDowell (Smithsonian Astrophysical Observatory)





Abstract

SedImporter enables the seamless analysis and exploration of photometric and spectroscopic data by allowing users to combine their own data files with archival data extracted from VAO services and convert that data into the standard IVOA Spectral Energy Distribution (SED) Data Model format.

It was developed as a stand alone module in support of Iris, the Virtual Astronomical Observatory's SED Analysis Tool.

SedImporter is designed to be flexible enough to serve a wide range of specific use cases through its various components.

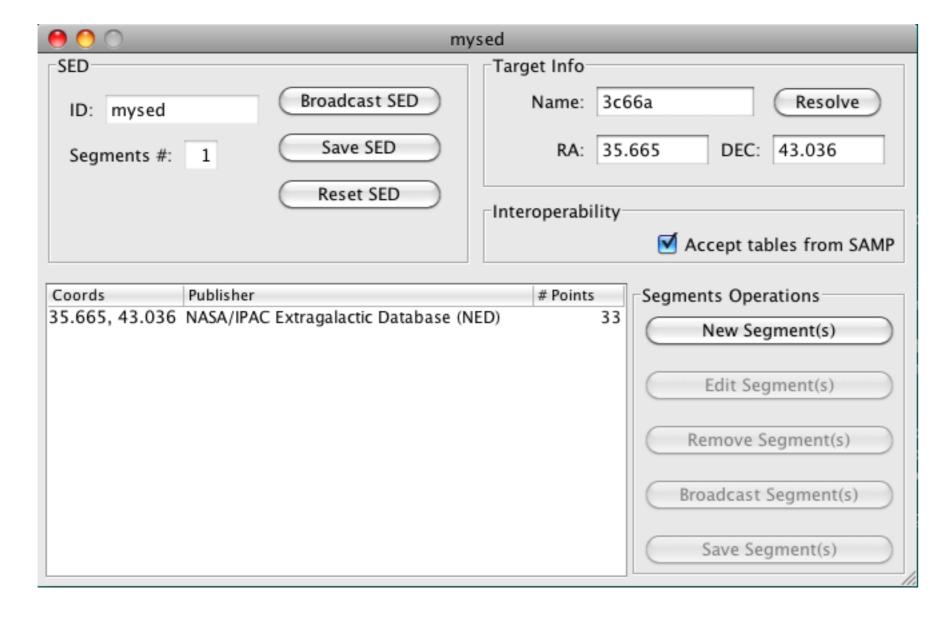
While providing the users with a tool that allows conversion data from custom to standard formats, SedImporter also allows basic construction of SED files by stringing together spectro-photometric segments from different sources, like the NASA Extragalactic Database (NED). A segment can be a spectrum or a photometric point, and entire SEDs can be imported in full as well.

SedImporter Desktop



The SedImporter desktop is a self-contained framework that keeps track of the SEDs opened by the user.

The SED window



Users can create as many SEDs as needed. Each SED is controlled by an SED window. In this screenshot, a segment for 3C66A was imported from the NED service.

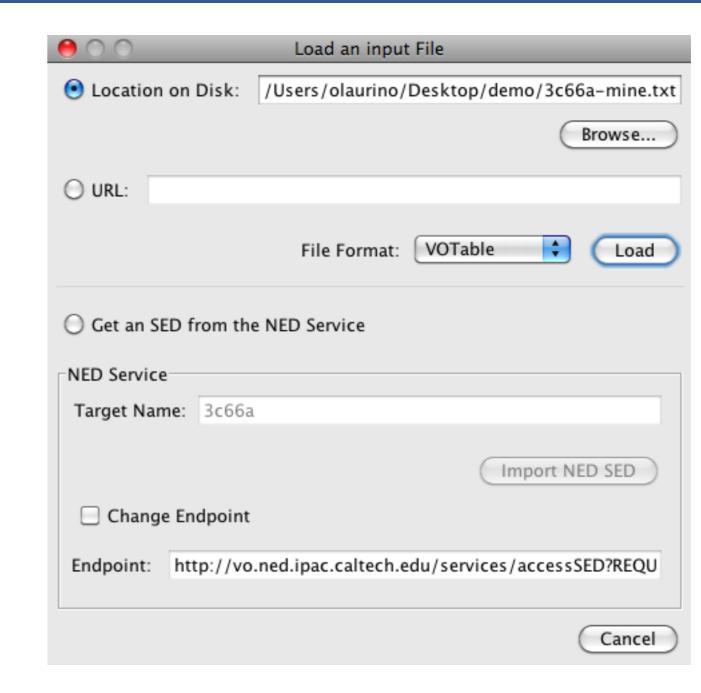
More information and download



SedImporter was developed in the Virtual Astronomical Observatory framework and is distributed in bundle with the VAO SED Tool, Iris (http://www.usvao.org/tools) with an Apache License v2.0.

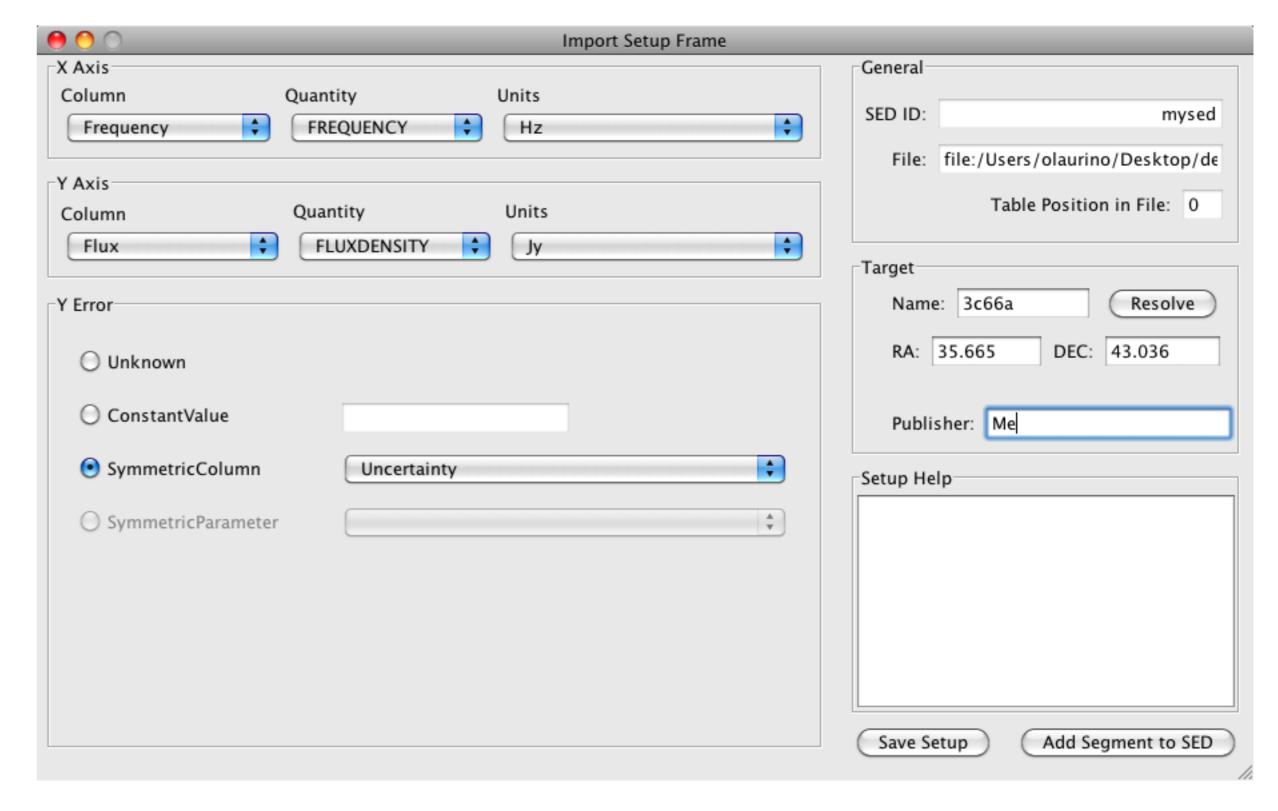
Scan the QRCode on the left to go to the Iris web page, where you can find more information and download the tool.

The Load Segment Dialog



Files can be loaded from the local filesystem, from a remote URL (HTTP and FTP) and from the NED service, by providing the object name.

The importing window

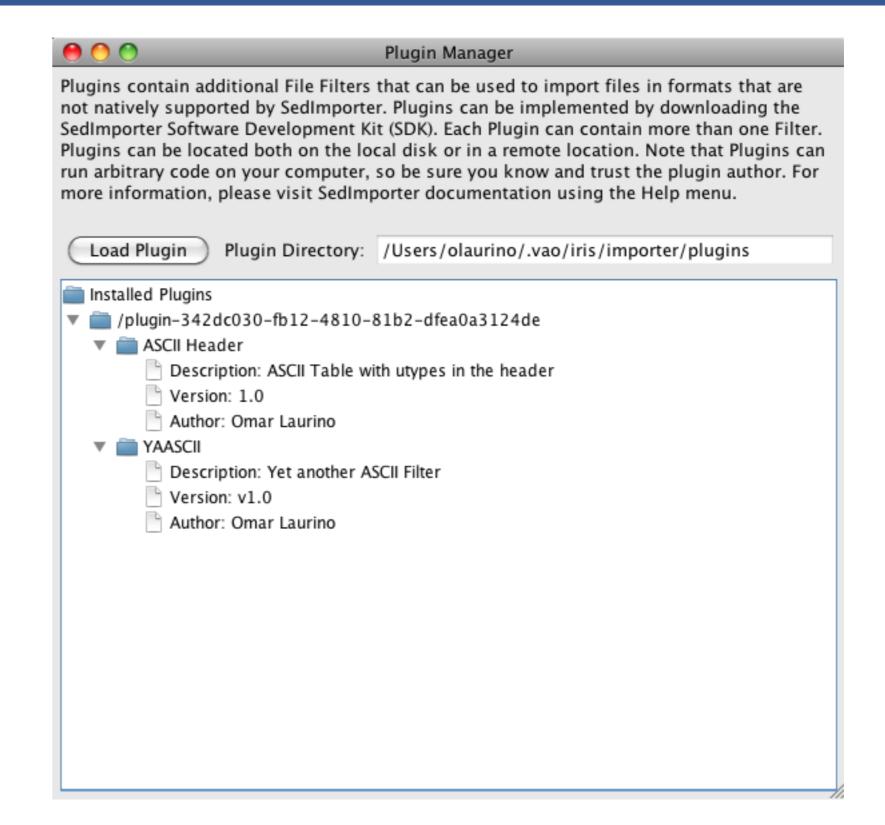


If the imported segment is compliant no further input by the user is needed; otherwise the user will be required to map the file columns and header parameters to the SED Data Model attributes.

SAMP

SedImporter supports the IVOA Simple Application Messaging Protocol for input and output: users can *beam* a table from a SAMP-enabled application (e.g. TOPCAT, Aladin, other VAO applications); they can also *beam* an SED to an application listening to SED messages, like Iris, for analysis.

Third party Plug-ins



The SedImporter SDK allows third party developers to create new file filters not natively supported by the tool. A Plug-in manager allows to install/uninstall plug-ins and display their metadata.

Command Line Interface

SedImporter offers a command line interface that can be exploited for writing scripts that can be invoked from the command line.

This feature requires that the mapping configuration needed to import the dataset is stored in a Setup file. These files can be saved from the GUI in interactive mode and then edited by the user.

Acknowledgement

Support for the development of Iris/SedImporter is provided by the Virtual Astronomical Observatory under NSF contract AST0834235.