



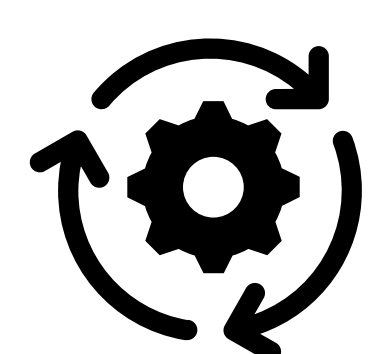
SODA: Easily Prepare and Submit SPARC Datasets

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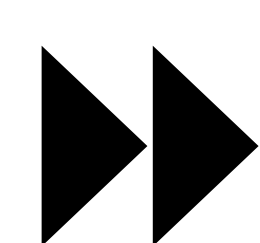
FAIR Data Innovations Hub, California Medical Innovations Institute, San Diego, CA

Background

- The **SPARC data curation and sharing guidelines** are designed to make neuromodulation, neurophysiology, and related data FAIR (Findable, Accessible, Interoperable, Reusable).
- These guidelines are mandatory for all SPARC-supported data. This is crucial to:



Ensure reproducibility of research results



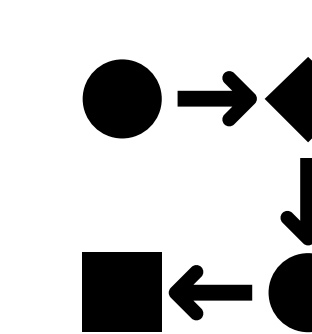
Increase the pace of scientific progress

Problem

- The **guidelines are very extensive** to maximize the reusability of SPARC data.
- They require to structure data according to a standard folder structure, follow file and folder naming conventions, include specific metadata files, upload resulting dataset on the SPARC platform, etc.
- While curators are available to help, SPARC investigator still need to do an initial implementation of the guidelines which can be **time consuming and difficult** to do.

Solution

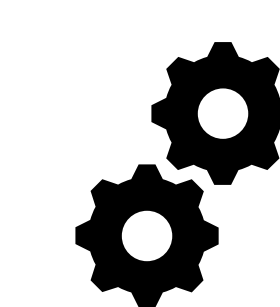
- We developed **SODA, a free and open-source desktop software** that simplifies preparation and submission of datasets according to the SPARC guidelines.
- Independent testing has shown that **SODA reduces time, effort, and errors**.
- This is achieved through several elements:



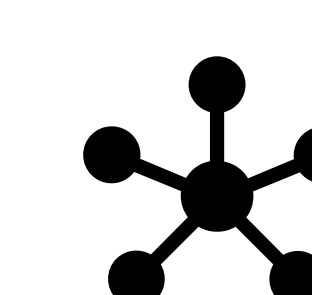
Step-by-step guide through all the SPARC requirements (from curation to upload)



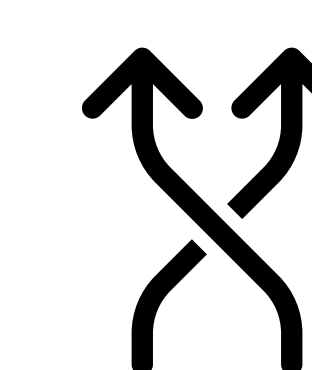
Intuitive user interfaces so users don't have to think



Automation to minimize users' effort along the way



Integration with SPARC resources such as Pennsieve and the SPARC Validator so it's a one-stop tool



Accommodation of different workflows: submit a complete dataset, prepare and upload data progressively as it is collected, etc.

- SODA is available for all operating systems (Windows, macOS, Linux). It is built with Electron (HTML, CSS, JavaScript). The backend is developed with Python.

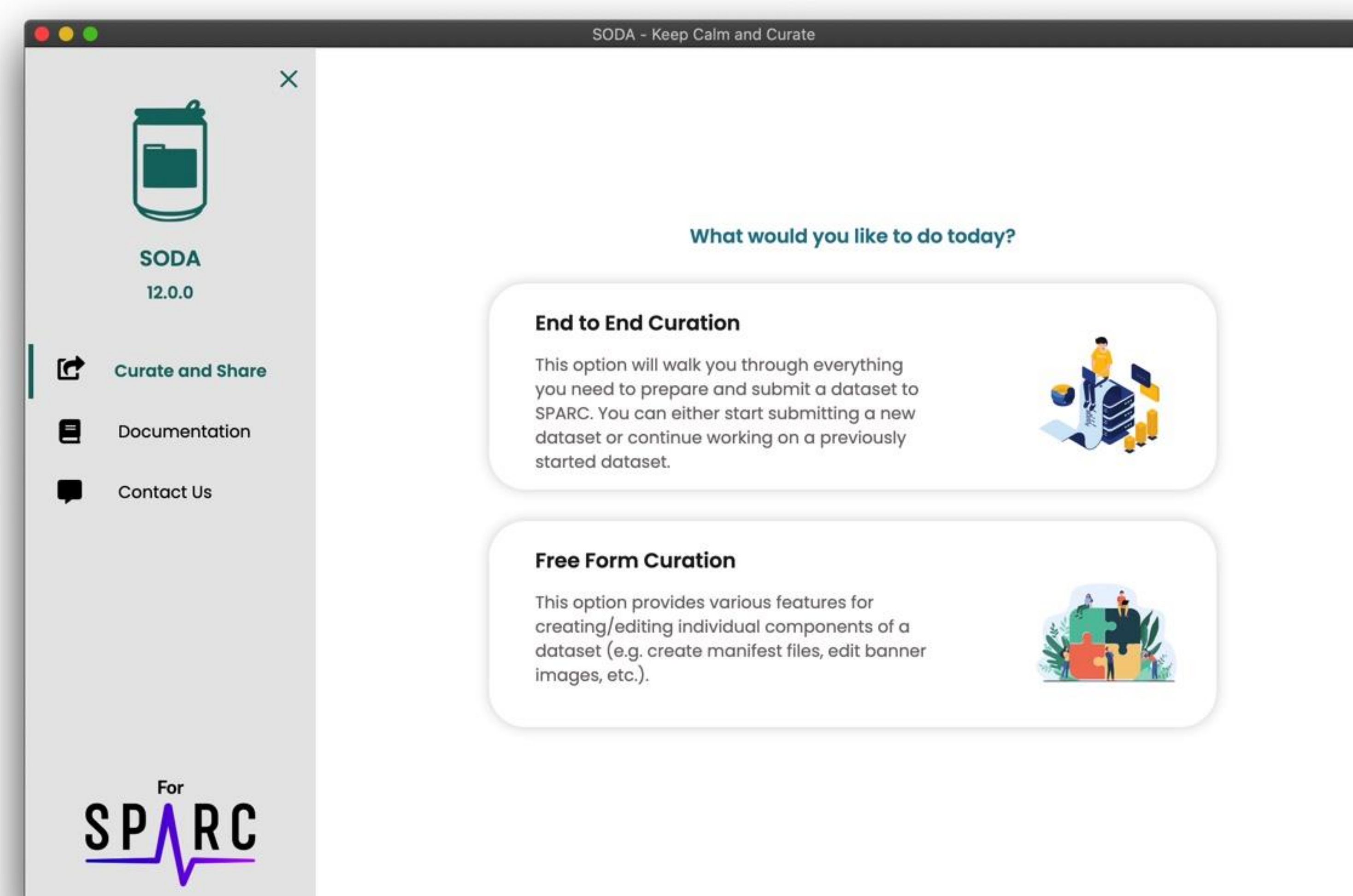


Want to focus more on the science and less on the data submission?

- Download SODA: bit.ly/sodaforparc
- Make sure to join our talk Wednesday 06/14 at 9:05 am (Main Room)

Prefer a programmatic approach?
Let us know as we may create a Python package out of our backend functions for easy integration in any workflows.

For more information: bit.ly/pysoda



SODA is like a tax filing tool but for "filing" SPARC datasets

Acknowledgement



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fairdataihub.org

Find this poster, references, and more here

