

The Open Source SCE

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Collaboration

It's why we are the only human species in existence today.

Cooperative communication *“allows us to plug our minds into the minds of others and inherit the knowledge of generations. It is the foundation for all forms of culture and learning, including sophisticated language.”*

- from "Survival of the Friendliest", By Brian Hare and Vanessa Woods, Scientific American 323, 2, 58-63



Defining Open Source

Defined 25 years ago with [The Open Source Initiative](#)

Popular open source licenses today:

GNU General Public License version 3 (GPLv3) | Apache License 2.0 |
Berkeley Software Distribution (BSD) | MIT License

Benefits and Challenges



- Free to access and use.
- Freedom to modify and extend the code.
- Pool of intrinsically motivated talent working on open source projects.
- Drives appropriate standardization.

As a result, open source is a readily-available accelerator.



- Validation
- Release of IP
- Requires motivated contributors

Still comes with a cost.

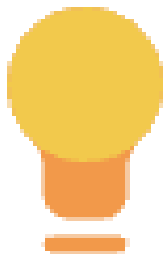
The Modern SCE

2019-2021 PHUSE SCE Whitepaper: requirements for a modern SCE

Common responses to meeting SCE needs:

- Build bespoke solutions to meet as many of the requirements as possible.
- Compromise on future-readiness in order to implement a familiar user experience.
- Meet future-readiness needs by implementing a flexible, modern data science platform, and build integrating components to facilitate the more familiar ways of working.

An Idea



- If industry experts can collaborate on developing a standard set of requirements for a modern SCE, can a similar concept apply to developing software to meet those requirements?
- Can a community of knowledgeable, skilled, and creative professionals be inspired to contribute their efforts to innovating and developing fit-for-purpose SCE components?
- Would companies be willing to release IP developed by their employees for such an initiative?

The Launch

Orlando, March 2023

Open-SCE GitHub organization <http://open-sce.org>

Current Projects



Domino Audit Solution

Provides three types of audit trail reports for activities on the Domino platform. Each of the audit trail reports can be accessed in three different ways: 1) A CLI, which is designed to run either inside a Domino workspace or externally, 2) an API endpoint, authorized by a valid Domino API key, and 3) a web application, deployed as a standalone service.



Study Migration Tool

A Plotly-Dash Python application initially developed by Achieve Intelligence that generates visualizations of study milestone activity for analysis and migration scheduling.



Domino Fluent CLI

An enhanced CLI for interacting with the Domino Platform. It provides the ability to output results as plain text, JSON, or XML; it is a zero dependency native executable; it provides detailed context sensitive help for each command; and it allows users to easily script and chain commands together in their favorite shell (Bash, PowerShell, etc).



Code Translation Toolset

A number of assets for automatic code translation between R, Python, and SAS using generative AI.

Open-SCE Community

The Open-SCE community aims to foster collaboration, innovation, and the development of high-quality open-source projects to deliver a collection of tools and applications which enable more efficient workflows for statistical programming organizations to deliver quality statistical analyses for regulatory submissions.

By promoting transparency, inclusivity, and shared ownership, we strive to create a vibrant and welcoming environment for individuals passionate about open-source software and driving positive change through software engineering, data science, and statistical programming in pharmaceutical research and development.

Organization

Board of Trustees

Decisions regarding community-wide matters, such as project direction, major changes, or the adoption of new initiatives, should be made collaboratively through open discussions and consensus building. In matters of conflict, the board of trustees will vote on resolutions.

Content Management

Each project has a team responsible for managing and approving the quality of new content and standards applied to contributions (e.g. proper documentation, code quality, etc.).

Updates to content will be managed on a project basis by project leadership which will be subject to the standards as they are defined by the project leaders. Project leaders will also be responsible for engagement on their projects.

Framework Management

One team responsible for ownership and management of the Open-SCE GitHub Organization approves new projects, creates new repositories as required, and manages access.

This team sets the documentation and project quality standards for projects, as well as manages the Open-SCE website and communications.

“If you want to go fast, go alone.
If you want to go far, go
together.”

The Open-SCE community aims to follow through
and continue on the path toward the ideal,
modern SCE, collaboratively through open source.

This is just the beginning.

Interested in contributing knowledge, skills, and IP
to the Open-SCE?

Start by visiting the community website:
<http://open-sce.org>.





Thank You

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