

Enhancing research with software

The Software Sustainability Institute



Software
Sustainability
Institute

www.software.ac.uk

What we do

A national facility for building better software

Software helps researchers to improve their work and the speed and accuracy of their results. The Software Sustainability Institute can help you to introduce software into your research or improve the software you already use.

The importance of sustainability

Sustainability means that the software you use today will be available - and continue to be improved - in the future.

Our goal is to make it easier to rely on software as a foundation of research. We help people learn the skills needed to build better software, and ensure that people get credit and encouragement for developing sustainable software.

Building better software

We work with researchers and software developers to develop new software, and improve software that is already in use.

Developing sustainable software means following software engineering practices, and understanding and nurturing the community that uses your software. We can help you gain the skills you need through our guides and other resources, or through training and collaboration.



Expert knowledge

We work with research projects from all disciplines, which gives us a broad understanding of the problems researchers face when using software. We use this expertise to ensure that you make the right choices about the software you use - and avoid the pitfalls.

Choosing sustainable software is about knowing what to look for, and reducing the risks if you make a wrong choice. We can help by reviewing software based on your requirements, or you can review the software yourself with the help of our guides.

We also make our expertise available on our website, and in guides and other help materials.

Our work

A selection of our current projects

Culham Centre for Fusion Energy

Working with Culham, we upgraded established software to streamline the process for visualising plasmas, and developed new code for generating animated visualisations.

This work allows fusion researchers to gain a deeper insight into critical aspects of the fusion process.

www.ccfef.ac.uk

CPOSS

We unified the different codebases that CPOSS uses to predict the behaviour of drugs, fixed bugs and set up project resources for managing the new code.

This work has greatly increased the reliability of the CPOSS software and the confidence in the results it generates.

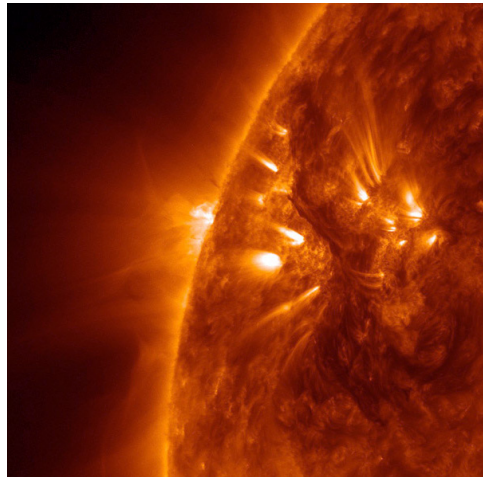
www.cposs.org.uk

Brain Research & Imaging Centre (BRIC)

We advised on changes to software used for anonymising medical images, and reviewed the project's websites and computing infrastructure. We then worked with BRIC to develop improved code.

This work improved the usability of the software, which increased its uptake. We also helped to make the software open source, which made it more maintainable.

www.bric.ed.ac.uk



Community engagement

We run two community initiatives to help us identify software and projects that can benefit from our help.

SeIUCCR is a network of Community Champions designed to foster dialogue between their communities and the providers of UK infrastructure services.

The Agents network is a group of experts from a wide range of fields. They communicate to us the requirements of their community.

www.ngs.ac.uk/seiuccr/home

www.software.ac.uk/agents

Our work at a glance

Software

- Help you select the right software for your research
- Review your software and work with you to identify weaknesses and suggest improvements
- Apply software engineering to simply, stabilise and debug your software
- Work with you to improve your software development process, from engineering to documentation
- Collaborate with your team to help add new functionality to your software
- Assist development teams in setting up version control, issue tracking, release management, testing and project management resources.

Resources

- Review your website and other project resources, and suggest improvements
- Help refine your project processes and work with you to implement them
- Work with you to develop strategy for outreach and community engagement
- Provide training materials to help researchers learn essential software-development skills
- Make our expertise available in guides, case studies, and other resources
- Solve your development problems on the AskSteve blog

Follow our work

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Blog	software.ac.uk/blog
Twitter	twitter.com/SoftwareSaved
SlideShare	slideshare.net/SoftwareSaved
YouTube	youtube.com/SoftwareSaved

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Resources

Guides	software.ac.uk/resources/guides
AskSteve	software.ac.uk/asksteve
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