

Issue #15, October 16, 2024



Strengthening the Open-Source Ecosystem: New Collaborations, Innovations, and Opportunities

""Knowledge is power. Knowledge shared is power multiplied."

- Robert Boyce

Dear Software Heritage community,

As the digital world rapidly evolves, so too does the responsibility of ensuring the security, transparency, and long-term preservation of the software that powers it. The introduction of landmark regulations, such as the European Cyber Resilience Act (CRA), is reshaping how open-source software is developed, maintained, and governed. These changes bring about new challenges but also open doors for us to strengthen the resilience of the open-source ecosystem.

At Software Heritage, we are committed to be at the forefront of these efforts. As the world's largest public archive of source code, supported by Inria and UNESCO, Software Heritage is in a unique position to provide a key infrastructure to ensure availability, guarantee integrity and enable traceability of all publicly available software source code. After participating in early work on software identification several years ago, we naturally engaged as a founding member of the Eclipse Foundation's Open Regulatory Compliance Working Group (ORCWG), where we aim to help open-source projects navigate the complex regulatory landscape while preserving its full innovation potential.

The <u>Software Heritage archive is a key infrastructure</u> to connect the scholarly Open Science ecosystem with the greater software ecosystem, as <u>recognised by the selection in the 5th pledging round of SCOSS</u>. The Archives and Libraries Interest Group (ALIG) has been established to support Software Heritage, bringing together academic stakeholders committed to unrestricted access, reference, and citation of software, in line with Open Science principles. Members can access benefits such as the ALIG mailing list, training sessions for software curation, a help-desk, participation in the general assembly, and entry into the contributor recognition program for <u>Sponsor status</u>, based on their contribution level. We welcome two new members to the ALIG as

part of the SCOSS pledging round to support our mission to preserve software: the <u>Canadian</u> Research Knowledge Network (CRKN) and the <u>Consortium of Swiss Academic Libraries (CSAL)</u>.

As part of our continued effort to support software as a pillar for Open Science, we have <u>enhanced the CodeMeta Generator</u>, which ensures accurate and uniform metadata for projects deposited in our archive with curated metadata.

Software for Open Science will be at centerstage of the upcoming next editon of the MOOC "Reproducible Research," and is the focus of our newest ambassadors, Linda Angulo-Lopez and Giacomo Lorenzetti, who are passionate advocates for software preservation.

Last, but not least, Mark your calendars! The next Software Heritage Annual Symposium is just around the corner, set to take place on January 29, 2025. Save the date and be prepared to join us in this high profile international event!

Roberto Di Cosmo CEO, Software Heritage

OUR MISSION

<u>We collect and preserve software in source code form</u> because software embodies our technical and scientific knowledge and humanity cannot afford the risk of losing it.

Software is a precious part of our cultural heritage. We curate and make accessible all the software we collect because only by **sharing** it we can guarantee its preservation in the very long term.



Software Heritage will provide solid, common foundations to serve the different needs of heritage preservation, science, and industry.

Donate



Joining forces for a secure open source software supply chain

The digital landscape is evolving, and with it, the responsibilities that come with creating, maintaining, and securing software. Landmark regulations like the European Cyber Resilience Act (CRA) are reshaping the way opensource software is used and governed. As these regulations

set new standards, organizations must adapt to ensure compliance and security.

At Software Heritage, we believe that these changes present not only challenges but also opportunities to create a safer, more transparent open-source ecosystem. As the largest public archive of source code, supported by French research institute Inria and UNESCO, we're a founding member of the Eclipse Foundation's newly formed Open Regulatory Compliance Working

Group (ORCWG). This group is dedicated to helping open-source projects navigate emerging regulatory requirements while ensuring that innovation and collaboration continue to thrive.

Read more

September 26, 2024



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Barcelona Declaration and Open Science infrastructures, along with the latest members of the SCOSS network

The Barcelona Declaration, a commitment to advancing Open Science, signed by key stakeholders in the research and scientific communities highlighted the critical role of Open

Science infrastructures, such as those supported by the Global Sustainability Coalition for Open Science Services (SCOSS), play in making research accessible and sustainable. During the SCOSS presentation, members of the SCOSS family—Research Data Alliance (RDA) and Software Heritage—were introduced, reinforcing the importance of collaborative efforts for a sustainable future in science.

Read more

September 23, 2024





Software

Roberto Di Cosmo chaired a pivotal session at the EOSC Tripartite event held on September 12-13 at the Institut Henri Poincaré in Paris. The session emphasized the

importance of software as a core infrastructure for modern research, distinct from data, and essential for research in all disciplines. Key presentations featured the **French Open Science Monitor**, **Software Forges**, and **Software Heritage**, showcasing the critical role of software in the European Open Science Cloud (EOSC).

Read more

August 30, 2024



New Features in the CodeMeta Generator

At Software Heritage, the universal source code archive, metadata is the software's identity card. It provides information that can be used to identify, describe and curate software. To make it easier for users to discover software

projects among the millions we archive, having accurate metadata is crucial.

However, there are many different ways for discribing software and capturing this metadata. To ensure uniformity and consistency in descriptive metadata, Software Heritage has adopted the CodeMeta format.

Read more

August 5, 2024



Reflecting on an Inspiring SciFoo 2024!

Roberto Di Cosmo recently participated in SciFoo, an extraordinary gathering of scientific pioneers held in Cambridge, UK. The event featured diverse topics, from quantum computing to Al-driven weather forecasting and

the healing power of music. Roberto engaged in deep discussions on open source software, software preservation, and improving recognition for research software in academia. He also highlighted how Software Heritage's principles can help define truly open-source Al models.

Read more



Empowering the World with Software Heritage at the United Nations

Roberto Di Cosmo, Director of Software Heritage, recently attended the OSPO for Good event at the United Nations headquarters in New York. The event gathered global stakeholders to explore software's critical role in addressing world challenges. Roberto highlighted how Software

Heritage, aligns with these goals by preserving software source code as a common knowledge base. With UNESCO's support, Software Heritage continues to be a vital infrastructure for sustainable development and innovation.

Read more

July 4, 2024



The Archives and Libraries Interest Group, ALIG, welcomes CSAL members

We were delighted to announce that The Consortium of Swiss Academic Libraries (CSAL) on behalf of its members is partnering with Software Heritage. We welcome the CSAL

members who have already committed to support with their financial contribution to the long-term mission of Software Heritage.

Read more

July, 2024

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Roberto Di Cosmo Honored with Mozilla's #Rise25 Award

Roberto Di Cosmo has been awarded the prestigious Mozilla #Rise25 2024 Award. This recognition celebrates his decades-long dedication to promoting, developing, and

preserving Open Source and Open Science. As the technology landscape evolves, Roberto continues to lead efforts to ensure that Al serves society in a transparent and accountable way.

Read more



Presenting SWHIDs at PIDfest 2024

Miguel Colom, senior researcher at Centre Borelli, ENS Paris-Saclay, presented SWHID at PIDFest, the conference on persistent identifiers. Morane Gruenpeter, Head of Open Science at Software Heritage, joined him online to discuss

the latest developments from the SWHID Working Group, including insights into the SWHID v1.1 specifications. This includes a detailed exploration of key updates and the path forward toward standardization.

Read more

May 31, 2024



The Archives and Libraries Interest Group welcomes CRKN members

With great pleasure, we announced that the Canadian Research Knowledge Network - Réseau canadien de documentation pour la recherche (CRKN-RCDR) has

partnered with Software Heritage by way of the fifth funding cycle of the Global Sustainability Coalition for Open Science Services (SCOSS). We welcome the CRKN members who have already committed to support with their financial contribution to the long-term mission of Software Heritage.

Read more

May 7, 2024



Reach the next level with the Mooc "Reproducible Research II: Practices and tools for managing computations and data"

If massive data and complex calculations (in terms of duration and/or code size) are part of your daily life, then you

should register now for the new edition of the MOOC "Reproducible Research". Its contents are aimed at researchers and engineers who are looking for good control of their computing environments. This MOOC is the perfect opportunity to understand how Software Heritage can integrate your personal workflow. You'll also learn more about how and why to use SoftWare Hash Identifiers. You'll discover the many impacts of source code archiving on the scholarly ecosystem.

April 25, 2024



Join the session "Infrastructures for Research Software: Moving toward adoption"

We were pleased to announce that an online dedicated session called "Infrastructures for Research Software: Moving toward adoption" has been part of the Research

Data Alliance (RDA) P22 plenary. This session was tailored for repository managers, software project owners, archivists and librarians, and researchers involved in software development and curation.

Read more

April 23, 2024



About software preservation: a reading list based upon "Towards Preserving Digital Culture", the interviews series by Camille Françoise

Our Software Heritage ambassador Camille Françoise asked experts, with different backgrounds, to share their <u>thoughts</u> on software preservation in an interview series published in

Medium. This blog post will give you an overview of the series.

Read more

AMBASSADORS



We invite you to join our <u>Ambassadors Program</u>, where we are seeking enthusiastic organizations and individuals to volunteer and play a vital role in expanding the Software Heritage community!

Become a Software Heritage ambassador to support this effort in your area by:

• presenting Software Heritage, the services it provides, and its long-term mission to key persons in your area;

- sharing information with relevant mailing lists, venues and contacts;
- posting Software Heritage news on blogs and social media;
- identifying code hosting platforms in your area that it is urgent and important to archive;
- updating the Software Heritage team with your community's feedback.

We are welcoming to the ambassadors program:

June 13, 2024



Meet our 3rd ambassador in 2024, Giacomo Lorenzetti!

Giacomo Lorenzetti works as a Research Software Engineer at Centro de Estudios de Física del Cosmos de Aragón (CEFCA). After an education in physics, he joined libre software communities, being an Open Source

Developer. Giacomo is eager to highlight the importance of libre software in general and of longevity of source codes in the scientific world in particular. As a Software Heritage ambassador, Giacomo is looking forward to meeting other libre software enthusiasts from all over the world and to spread the software preservation word!

Read more

May 23, 2024



Meet our 2nd ambassador in 2024, Linda Angulo-Lopez!

Linda is a Data Research Officer at Ecole Centrale Lyon, a scientific graduate school. Her role involves defining, implementing, and managing support services for researchers in research data management, in collaboration

with various stakeholders within the institution, such as the library. As an ambassador, Linda is eager to contribute to the preservation of the global digital heritage. And as a Data Research Officer, she is also convinced that raising awareness among researchers about the importance of archiving source code is essential to guarantee the integrity and longevity of their work.

Read more

Interested in becoming a Software Heritage ambassador?

Please tell us a bit about yourself and your interest in the mission of Software

Heritage: info@softwareheritage.org

GRANTS



Helping you to contribute to the mission

Source code is spread around a broad spectrum of code hosting platforms and websites, and developed using a variety of version control systems. In order to collect and archive it properly, and to add features to the archive to better access it, Software Heritage needs expert contributors.

Open calls for cascading grants may be available to fund your contributions: look at the <u>NLnet</u> <u>foundation</u> and the recently announced <u>NGI Search</u>, and contact us for a letter of support if you think you can apply with a proposal that contributes to the long term mission of Software Heritage.

YOU CAN HELP!



The Software Heritage archive will serve the needs of the many, from <u>cultural institutions</u> to <u>scientists</u> and <u>industries</u>.

Everyone can help us achieving these ambitious goals and there are several ways to help.



Become a sponsor

Pursuing our roadmap for the archive requires significant resources. We welcome companies, institutions, and individuals who would like to join our sponsorship program and sustain the Software Heritage.

<u>Discover our sponsorship program!</u>



Tackle scientific challenges

Building, maintaining, and exploiting the universal source code archive poses relevant scientific challenges. We welcome scientists who would like to contribute to this mission by participating in our research activities.

Join our research community!



Code with us

All the software we develop ourselves is open



Host a mirror

Institutions and companies from all around the

source. We welcome contributors that are willing to delve into it and help us building the many components that are needed to make the archive progress towards the next milestones.

Contact us to host a mirror!

software heritage.

world are welcome to join our mirror program.

This is essential to prevent information loss,

and will greatly simplify access to humankind's

Dive into the code!



Discover the growing number of <u>institutions</u>, <u>organizations and</u> <u>companies that sponsor Software Heritage</u>, and those that express support for the <u>software preservation mission</u>. <u>Take a look at their testimonials!</u>

Individual donations are also most welcome, in any amount, just click on the button below to give to the mission.

Donate

2023 ANNUAL REPORT





Software Heritage in 2023: a perspective

We are pleased to announce the release of our annual report for 2023. This document provides a comprehensive overview of Software Heritage's mission, progress, and achievements.

It highlights the expansion of our source code collection, user-facing improvements, and community engagement efforts, and expresses gratitude to our sponsors and supporters. We invite you to access and share the report as we continue working together to preserve humankind's software heritage.

Thank you for your continued support!

Read more and download the 2023 annual report

SELECTED MILESTONES



■ Discover five years of Software Heritage in just five minutes!

July 29, 2021

Software for Open Science: a leap forward



In 2018, the French national plan for Open Science recognized Software Heritage as a key initiative for supporting research software, leading to the creation of a dedicated working group. Three years later, software is now fully recognized as a pillar of Open Science in the second national plan unveiled by the French Ministry of Research in July 2021.

Read more.

October 10, 2019

Curating and archiving landmark legacy source code: you can help!



We were delighted to make a step forward about an important and urgent challenge in October 2019: collecting and curating landmark legacy source code written by pioneers of the digital age, many of which were still around, and willing to contribute their knowledge, but only for a limited time.

FRead more.

February 26, 2019

Software Heritage for Open Science

February 26, 2019

The Paris Call is here: calling for action to sustain Software Source Code!



Part of our Heritage, Pillar of our Present, Enabler of our Future

On july 4th 2018 was unveiled the French national plan for Open Science, that identifies Software Heritage as one key initiative to support. Today we are delighted to welcome the French Ministry of Research as our first gold sponsor, contributing effectively to our efforts. On this occasion, we are happy to recall why Software Heritage is building an infrastructure that plays a key role for Open Science.

FRead more.

In April 2017, Inria entered into a framework agreement with UNESCO to uphold our mission of collecting, preserving, and sharing all available source code.

In June 2018, at UNESCO Headquarters, we launched the Software Heritage Archive to the public.

As part of our ongoing partnership, we helped bring together a group of experts at the UNESCO Headquarters and it resulted in the creation of the Paris Call, which now accessible online.

Read more.

April 4, 2017



widely available.

<u> Read more.</u>

Raising awareness for Software Source Code preservation and access

At Unesco's headquarters in Paris, a formal partnership agreement has been signed between Unesco and Inria to establish a framework for collaboration on preserving the knowledge embedded in software source code, and making it



You can read news from Software Heritage on our blog, follow us on

Mastodon, X, LinkedIn and also our RSS flux!

You can watch Software Heritage's presentations on our YouTube <u>video</u> <u>channel!</u>

And if you missed our newsletter's first issues, consult the archive!

Let's spread the word!









