

# Research Software Directory

Maike de Jong & Jason Maassen

Cite.SoftwareWorkshop

18-09-2023

netherlands

eScience center

# The Research Software Directory

RSD

Software Projects Organisations

Feedback Sign in

Search or jump to...

## Show your research software to the world

The Research Software Directory is designed to show the impact research software has on research and society. We stimulate the reuse of research software and encourage proper citation of research software to ensure researchers and RSEs get credit for their work.

314 Software packages registered

252 Projects registered

313 Organisations contributed

762 Contributors to research software

947 Mentions of research software

### Let's get started!

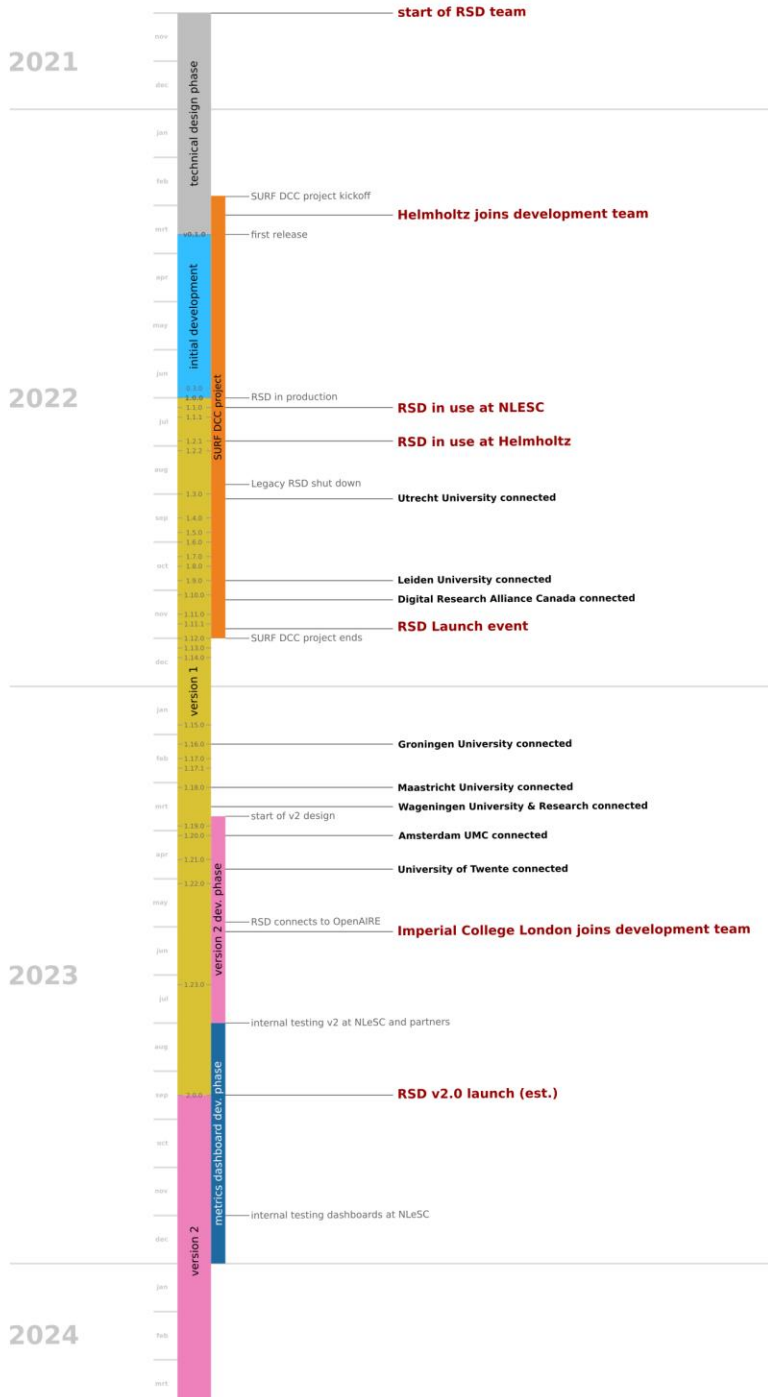
Discover research software relevant to your research!  
Get more information on how to add your own software or organization.

Discover Software Sign up to contribute Register your organisation

- **Increase the visibility & findability** of research software
- **Highlight** the important role it plays in research
- **Enable RSEs** to share their software and show its impact
- **Encourage citation** of research software
- **Allow organisations** to showcase their research software output

<https://research-software-directory.org>

# History of RSD



- 2015-2021: Internal prototypes
- November 2021: Development starts
- February 2022: Collaboration starts with UU, UL and AUMC
- March 2022: Helmholtz joins development team
- July 2022: Beta launch of RSD at eScience Center & Helmholtz
- **November 2022: Public launch event**
- June 2023: Imperial College joins development team

# Development team



Maaïke de Jong



Jason Maassen



Martin Hammitzsch



Christian Meessen



Jeremy Cohen



Jesus Garcia



Ewan Cahen



Dusan Mijatovic



Markus Bradke



Matthias Ruster



Felix Muhlbauer



Diego Alonso  
Alvarez



Christopher  
Cave-Ayland



Sven Reiland



Tobias Huste



Norman Ziegner



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## Show your research software to the world

The **Research Software Directory** is designed to show the impact research software has on research and society. We stimulate the reuse of research software and encourage proper citation of research software to ensure researchers and RSEs get credit for their work.

248 Software packages registered    204 Projects registered    209 Organisations contributed    576 Contributors to research software    846 Mentions of research software

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7/7/2022 Launched by eScience Center

Imperial College London

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## HELMHOLTZ

Research for grand challenges.

### Promote and Discover Research Software

Because software matters

Browse software

#### Software Spotlights

The latest outstanding software product developed in Helmholtz.

MassBank Search Contents Download Accession Go More

#### MassBank Record: UA002903

Atrazine; APCI-ITFT; MS2; CE: 35%; R=30000; [M+H]<sup>+</sup>

Abundance vs m/z

MassBank

MassBank is an open source mass spectral library for the identification of small chemical molecules of metabolomics, exposomics and environmental relevance.

#### Discover software by research topic

Energy    Earth & Environment    Health  
Information    Aeronautics, Space and Transport    Matter

<https://helmholtz.software>

29/7/2022 Launch by Helmholtz

<https://github.com/research-software-directory/RSD-as-a-service>



# Users Netherlands

## Connected

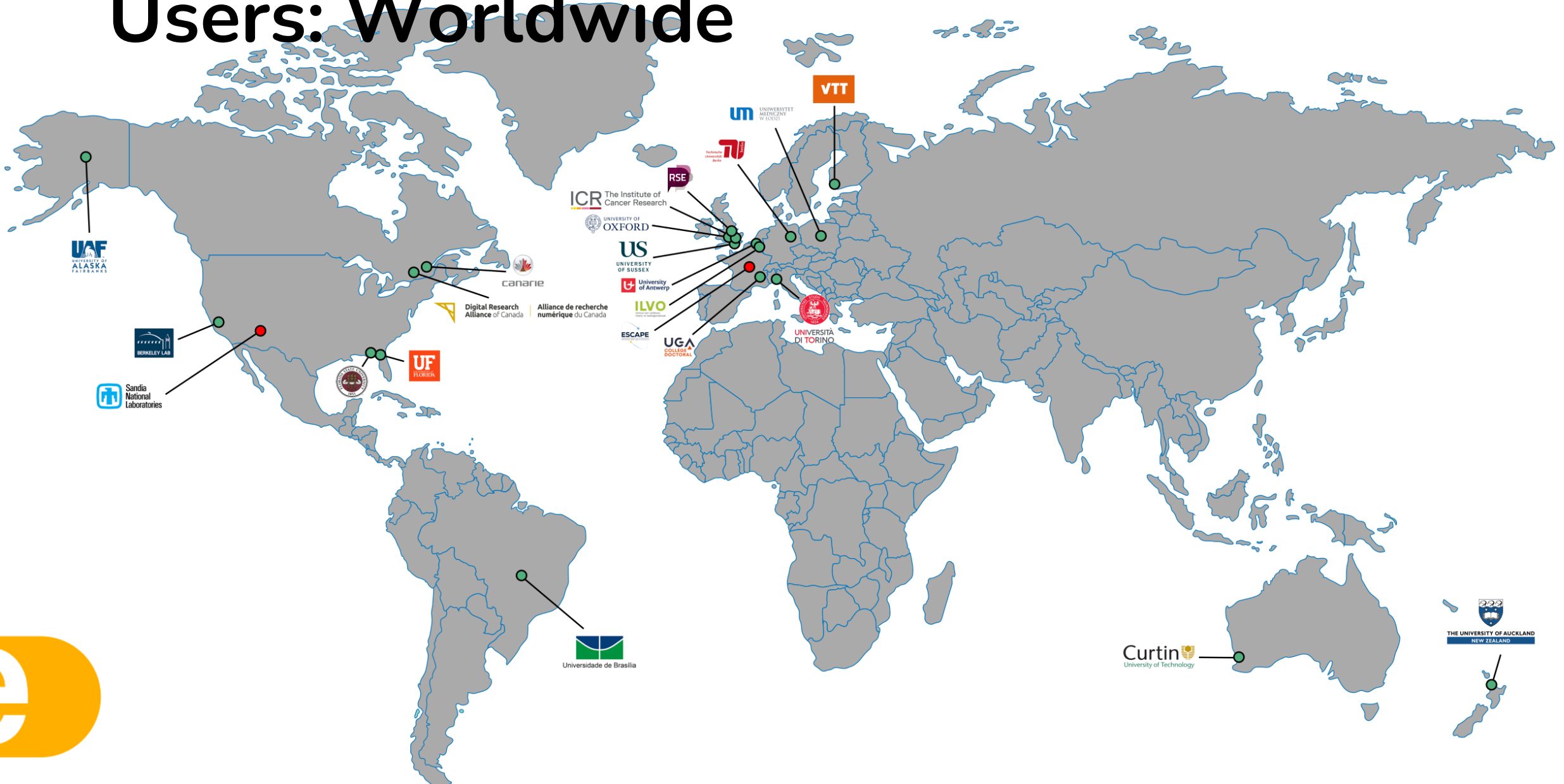
- Utrecht University
- Leiden University
- Amsterdam UMC
- University of Groningen
- Maastricht University
- Wageningen University & Research
- University of Twente

## Nearly there

- TU Delft
- VU Amsterdam



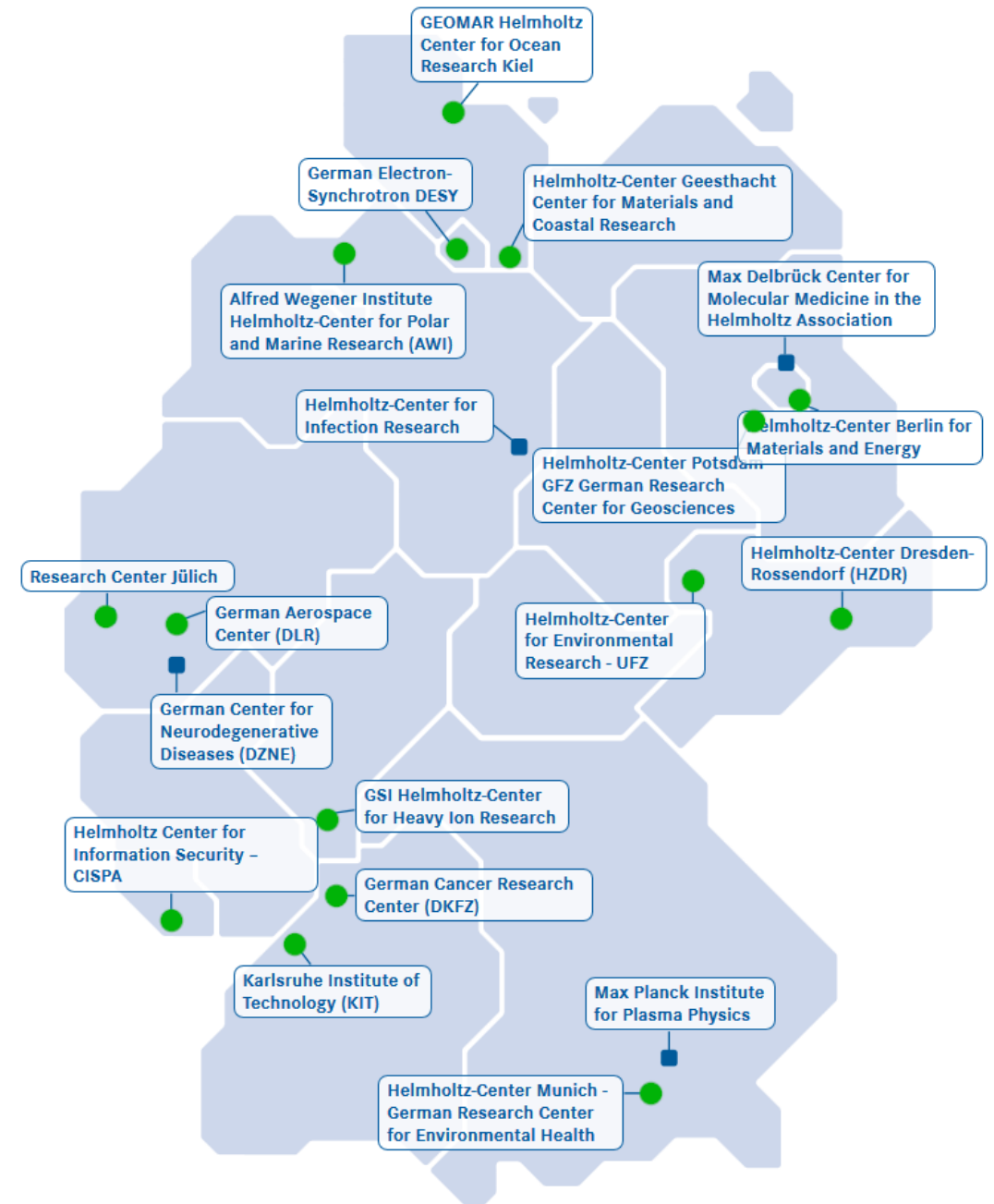
# Users: Worldwide



# Users Germany

## Connected

- Forschungszentrum Jülich German Aerospace Center (DLR)
- Helmholtz Centre Potsdam GFZ German Research Centre for Geosciences
- Karlsruhe Institute of Technology (KIT)
- Alfred Wegener Institute for Polar and Marine Research (AWI)
- Helmholtz-Zentrum Dresden-Rossendorf
- Helmholtz Centre for Environmental Research (UFZ)
- Deutsches Elektronen-Synchrotron DESY
- German Center for Neurodegenerative Diseases
- Helmholtz Centre For Ocean Research Kiel (GEOMAR)
- German Cancer Research Center
- Helmholtz Zentrum München
- Helmholtz Centre for Heavy Ion Research (GSI)
- Helmholtz-Zentrum Hereon
- Helmholtz-Zentrum Berlin für Materialien und Energie
- CISPA Helmholtz Center for Information Security
- Helmholtz Centre for Infection Research





# Software pages

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## GGIR

120 mentions 7 contributors

Converts raw data from wearables into insightful reports for researchers investigating human daily physical activity and sleep.

Get started

3055 commits | Last commit 1 week ago

Cite this software DOI: 10.5281/zenodo.8344824 Copy DOI

Software version: 2.10.3 Choose a reference manager format. Download citation

### What GGIR can do for you

- GGIR is an R package to process and analysis multi-day data collected with wearable raw data accelerometers for physical activity and sleep research.
- GGIR uses this information to describe the data per day of measurement or per measurement, including estimates of physical activity, inactivity, and sleep. As part of the pipeline GGIR performs automatic signal calibration, detection of sustained abnormally high values, detection of sensor non-wear and calculation of average magnitude acceleration based on a variety of metrics.
- GGIR is the only open source licensed software that provides a full pipeline for both physical activity and sleep analyses, with a high freedom for the user to configure the analyses to their needs.
- The package has been used for domain science in 70+ publications, and is supported by 8 methodological publications.

The package has been developed and tested for binary data from GENEActiv and GENEA devices, csv-export data from ActiGraph devices, and .cwa and .wav-format data from Axivity. These devices are currently widely used in research on human daily physical activity.

A list of publications using GGIR can be found here: <https://github.com/wadpac/GGIR/wiki/Publication-list>

The package vignette which gives a general introduction can be found here: <https://cran.r-project.org/web/packages/GGIR/vignettes/GGIR.html>

Participating organisations: Accelting, netherlands eScience center, Activinsights, Inserm, MRC | epidemiology, SHIP, netherlands eScience center, UCL, UNIVERSIDAD DE GRANADA, University of Leicester

Keywords: Big Data, Programming language: R 100%, License: LGPL 2.0, Source code

Mentions: Blogposts, Book section, Conference papers

### Mentions

- Blogposts
- Book section
- Conference papers
- Journal articles
- Video recordings
- Webpages

### Testimonials

"Thank you @vtvanhees for your work and support on the #GGIRpackage"

- Damien Bachasson, Institute of Myology, Paris, France

"The GGIR R package has been used extensively with GENEActiv, ActiGraph, and Axivity data and has grown organically to become the application of choice for many researchers using raw acceleration data to study not only PA and sedentary time, but also sleep."

- Prof Stuart Fairclough, Edgell University, Omskirk, UK

### Contributors

- Evgeny Mirkes, University of Leicester
- Jairo Migueles, University of Granada
- Jing Hua Zhao, MRC Epidemiology Unit
- Joe Heywood, University College London
- Séverine Sabia, Inserm, University College London
- Vincent van Hees, Accelting
- Zhou Fang, Activinsights Ltd

CONTACT PERSON: Vincent van Hees, Accelting, 0009-0003-0182-9008, Mail Vincent

### Related projects

- Genetics of sleep patterns: Detecting human sleep from wearable accelerometer data without the aid of sleep diaries. Updated 5 months ago. Finished.
- Classifying activity types: Gaining insights from wearable movement sensors. Updated 5 months ago. Finished.




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Testimonials

Cite this software

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Copy DOI

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Choose a reference manager format:

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Participating organisations



Mentions

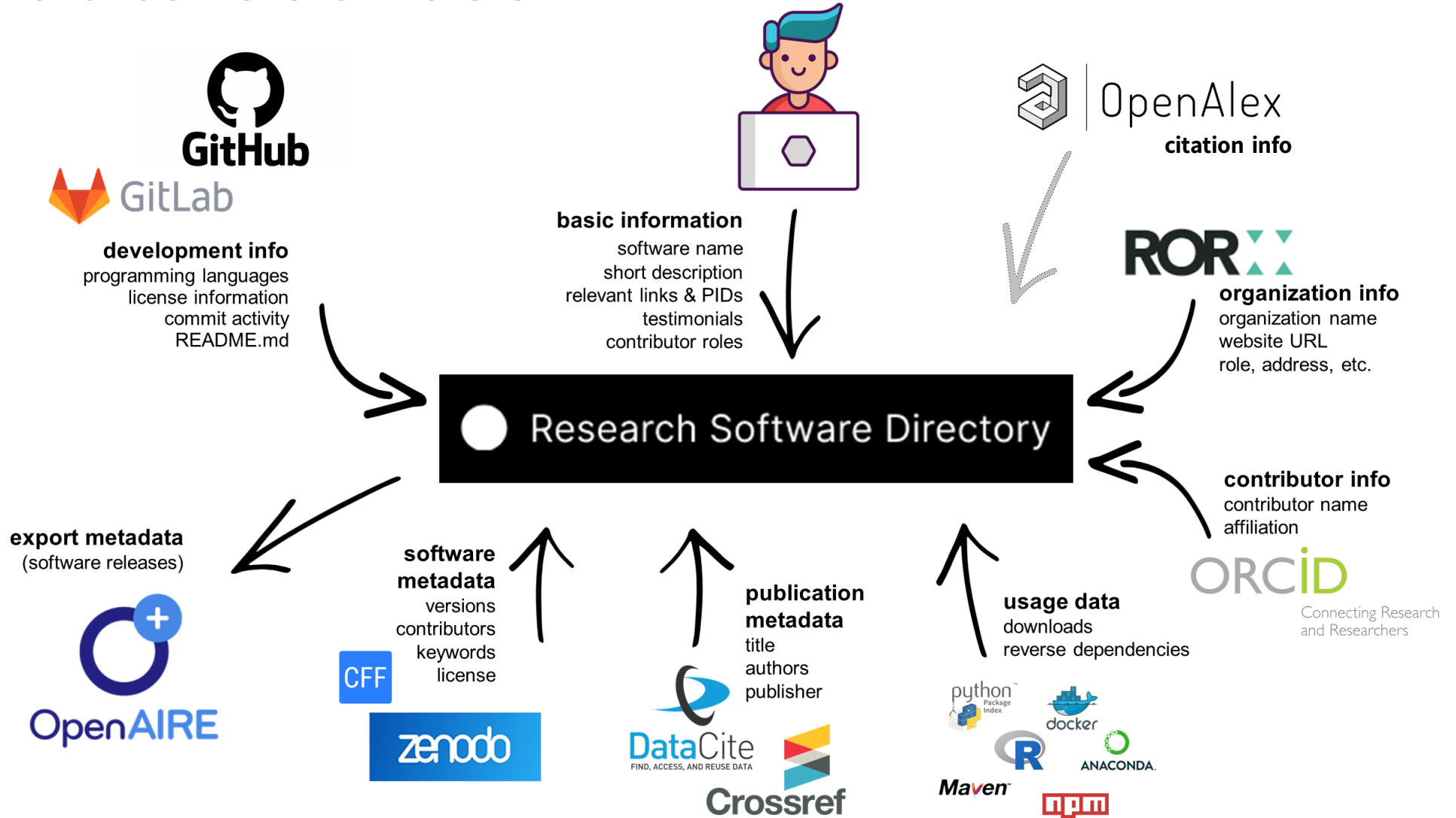
- Blogposts
- Book section
- Conference papers

Related projects

- Genetics of sleep patterns
- Classifying activity types



# Our data sources



# Adding software

The screenshot shows the 'Kernel Tuner' page in the Research Software Directory. The page is divided into several sections:





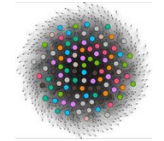



- Information:** Required information section.
- Contributors:** Required information section.
- Organisations:** Optional information section.
- Mentions:** Optional information section.
- Testimonials:** Optional information section.
- Related topics:** Optional information section.
- Maintainers:** Optional information section.
- Software information:**
  - RSD path: kernel-tuner
  - Name: Kernel Tuner
  - Short description: Kernel Tuner greatly simplifies the development of highly-optimized and auto-tuned CUDA, OpenCL, and C code, supporting many advanced use-cases and optimization strategies that speed up the auto-tuning process.
  - Software URLs:
    - Get Started URL: [https://github.com/KernelTuner/kernel\\_tuner](https://github.com/KernelTuner/kernel_tuner)
    - Repository URL: [https://github.com/KernelTuner/kernel\\_tuner](https://github.com/KernelTuner/kernel_tuner) (Platform: GitHub)
  - Description: What Kernel Tuner can do for you. Includes a 'MARKDOWN' editor with a preview showing details about the software's capabilities and advantages.
- Status:** Published.
- Citation:** We generate citation files using concept DOI. Concept DOI: 10.5281/zenodo.1220113.
- Keywords:** Find, add or import using concept DOI. Suggested keywords include: Big Data, GPU, High Performance Computing, Multiscale & Multi Model Simulations, Optimized Data Handling, Real Time Data Analysis.
- Licenses:** What licenses do apply to your software? You can also import licenses using concept DOI. Suggested license: Apache-2.0.

- Access via ORCID or institutional account
- Easy to use without extensive technical knowledge
- Automate adding data where possible:
  - Contributors via ORCID / DOI+CFF
  - Organisations via ROR
  - Keywords & licences from DOI
  - Releases & mentions via DOI
  - Descriptions via source repository
- Automatically update information

# Organizational portfolio

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Organisations Find organisation Per page 12 1-12 of 209

<p>Netherlands eScience Center</p>  <p>191 software packages 200 research projects</p>	<p>Utrecht University</p>  <p>20 software packages 22 research projects</p>
<p>Canarie</p>  <p>40 software packages 0 research projects</p>	<p>Digital Research Alliance of Canada</p>  <p>40 software packages 0 research projects</p>
<p>Interdisciplinary Physics Team (InPhyT)</p>  <p>4 software packages 2 research projects</p>	<p>SRON Netherlands Institute for Space Resea...</p>  <p>2 software packages 1 research projects</p>
<p>MEMIC</p>  <p>1 software package 0 research projects</p>	<p>New Zealand eScience Infrastructure (NeSI)</p>  <p>1 software package 0 research projects</p>


RSD Search in RSD or jump to... Software Projects Organisations Feedback Sign in

Utrecht University Find software in Utrecht University Per page 12 1-12 of 20

ORGANISATIONS > UTRECHT-UNIVERSITY

Software (20) Participating organisation

Projects (22) Participating organisation

 Utrecht University

Type

EDUCATION

Location

Utrecht University  
Utrecht, Netherlands

Links

- Website
- ROR info
- Wikipedia

<p>Parcels</p> <p>Parcels (Probably A Really Computationally Efficient Lagrangian Simulator) is a set of Python classes and methods to create customisable particle tracking simulations using output from Ocean Circulation models. Parcels can be used to track passive and active particulates such as plastic and fish.</p> <p>Updated 1 month ago 91 24</p>	<p>OMUSE</p> <p>A Python environment to interface and couple oceanographic and other earth system model codes.</p> <p>Updated 4 months ago 7 3</p>
<p>Texcavator</p> <p>Texcavator is a search engine and text mining application for creating word cloud and time line visualizations of large text corpora.</p> <p>Updated 4 months ago 7 2</p>	<p>DeepRank</p> <p>Deep learning framework for data mining protein-protein interactions using CNN</p> <p>Updated 4 months ago 4 8</p>
<p>LUE</p> <p>LUE is software for storing and manipulating large amounts of information for large numbers of objects. The software is useful, and currently mainly used, in the context of environmental modelling of biological and physical systems, represented by agents and fields.</p> <p>Updated 1 month ago 4 3</p>	<p>chimp-classifier</p> <p>The Python package 'junglesounds' is a machine learning pipeline for classifying bioacoustic data using machine learning. The pipeline is reusable for other settings and species or vocalization types as long as a certain amount of labeled data has been collected.</p> <p>Updated 1 month ago 3 2</p>
<p>iScore</p> <p>A framework and predictor based on support vector machine and random walk graph kernel for scoring protein-protein interfaces.</p> <p>Updated 4 months ago 3 4</p>	<p>ShiCo</p> <p>A visualization that shows how the meaning we attach to a given concept shifts over time.</p> <p>Updated 4 months ago 2 1</p>

## Let's stay in touch!



<https://research-software-directory.org>



[rsd@esciencecenter.nl](mailto:rsd@esciencecenter.nl)



[research-software-directory/RSD-as-a-service](https://github.com/research-software-directory/RSD-as-a-service)

## Contacts

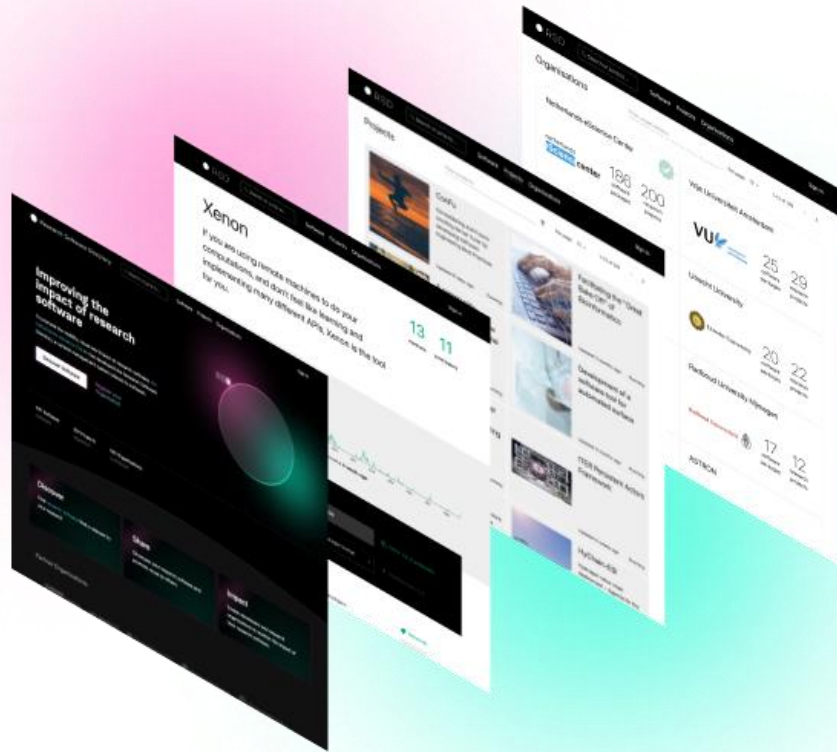


[m.dejong@esciencecenter.nl](mailto:m.dejong@esciencecenter.nl)



[j.maassen@esciencecenter.nl](mailto:j.maassen@esciencecenter.nl)

# The RSD and Open Science



- Supports **reproducibility** and **transparency**
- Encourages **recognition** of the work of RSEs
- Facilitates **collaboration**
- Increases **efficiency**, saving time and resources

