Uploading and linking research data/software at GSI v. 3.0 May 2023

Document Updates:

v2.2 Description on the request correction button to send an email to the library to add the linking Dataset/Software/Article

v.2.3 Includes technical instructions on linking. Updates on how to treat software versioning in the GSI repository. Clarification on software abstract in Zenodo. Citations in GitHub repo

v.2.4 Small Errors Corrected

v.3.0 Additional section added on publishing research software now includes example from GSI GitLab

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1 Introduction

For questions, comments, or required assistance please contact the open science team <u>open-science@gsi.de</u> (note: support only available for users of the GSI and FAIR facilities).

This document details how to publish research data and software to an external repository, create records in the GSI publications repository (<u>https://repository.gsi.de/</u>), and link them to the corresponding publication record. Publishing research data and software is crucial for compliance with the GSI Research Data Management Policy, and for the Helmholtz POF4 indicators. To learn more about Open Science at GSI and GSI's open access policy please visit:

https://www.gsi.de/work/forschung/open-science

https://www.gsi.de/en/work/research/ethics_rules

As a first step, please refer to the flowchart below for guidance on how to identify a suitable research data repository. When publishing research data, the goal is to include items that can replicate the results and findings, and make the data as interoperable and reusable as possible. If the data you wish to publish is too large, consider using a smaller subset of data, such as result data from plots which can still prove useful.



2 Publishing Data to Zenodo

The publication repository Zenodo is hosted by CERN in collaboration with <u>OpenAIRE</u>, and can provide up to 50GB of data storage per record (more is available upon request). In addition, a persistent identifier for the data record in the form of a Digital Object Identifier (DOI) is allocated, which can then be linked to the GSI publications repository in the method described in <u>section 4</u> below.

Please note that each new DOI generates costs, and thus please use with consideration. If you wish to test Zenodo, there is a Sandbox version which generates dummy DOIs: https://sandbox.zenodo.org/

The detailed user manual for uploading data to Zenodo can be found here <u>https://doi.org/10.5281/zenodo.5603317</u>

a. Go to <u>https://zenodo.org/</u> and login or sign up. This would preferably be done using the ORCID account.

Search Q Upload Communities	D Log in Z Sign up
Recent uploads January 1, 2010 Thesis Open Access Kritische Soziale Arbeit und ihr Gegenstand: Eine kritische Auseinandersetzung Stalder, Bruno; Vifian, Karin In vorliegender Bachelorarbeit "Kritische Soziale Arbeit und ihr Gegenstand – Eine kritische Auseinandersetzung" beschreiben die Autorin Karin Vifian und der Autor Bruno Stalder die Perspektive kritischer Sozialer Arbeit in Theorie erraxis. Die kritische Soziale Arbeit, deren wichtigste Uploaded on August 30, 2016	Need help? View Contact us Zenodo prioritizes all requested related to the COVID-19 outbreak. We can help with: • Uploading your research data, software, preprints, etc. • One-on-one with Zenodo supporters.

b. Click on 'Upload' and select which files to publish. After the files are listed, click 'Start Upload'. Here, also upload any readme documentation or additional data/metadata description files that might be necessary. Note that the data cannot be changed once the record is published, however, it can be saved for future modifications before publishing. Additional files can be added by iterating the 'Version' number (defined below).

🖻 Delete			Save Vublish		
New upload					
Files 👻			Choose files ③ Start upload		
Filename (4 files)	Size	Progress	Delete		
TestResultData1.ascii	2 kB		a		
TestResultData1.csv	1 kB		a		
TestResultData2.ascii	1 kB		a		
TestResultData2.csv	1 kB		a		
Note: File addition, removal or modification are not all	owed after you have published your upload. This is because a Digital Object Iden	tifier (DOI) is registered with 🔀 DataCite for (each upload.		
	(minimum 1 file required, max 50 GB per dataset - contact us for l	larger datasets)			
	If you're experiencing issues with uploading larger files, read our FAQ section	ion on file upload issues.			

- c. Scroll down to upload type and select Dataset. Leave the 'Digital Object Identifier' field blank, as a DOI will automatically be assigned. You can 'reserve' the DOI in advance, such that this can be provided to the journal article for linking to the dataset pre-publication.
- d. Fill out the author(s) and title fields. The authors may not necessarily have to be those in the published journal article, but could be the person responsible for publishing the data, the principle investigator, and/or the chief data analyst for example.

Upload type									required 💙
Publication Poster	Presenta O	tion Dataset	Image	Video/Audio	≻ Software ○	Lesson	Physical object	Workflow	Other
Basic information									required 💙
III Digital Object I	e.g. 10.1234/foo.bz Optional. Did your publi others to easily and una is always possible to eac IIII Reserve DOI 2022-11-02 Required. Format: YYYY	ar sher already as ambiguously ci dit a custom DC dit a custom DC	ssign a DOI to your up te your upload. Pleas DI. sse your upload was a	oload? If not, leave e note that it is Nr already published	the field empty DT possible to e	r and we will register a ne dit a Zenodo DOI once it se use the date of first p	w DOI for you. A l has been register ublication.	DOI allows ed by us, while it	
	🕑 Title *	GSI Test Dataset							
		Required.							
A 😩	Authors *	Andrew Kishor Mis	try	n für Sch	werionenforsch	ung GmbH	Optional.	00-0002-1825-0	097) 🗢 🗙
		+ Add another autho	r						

e. In the 'Description' field, describe the data set in as much detail as possible. Give a version number and keywords. If data is added or modified at a later date, the version number can be iterated (which will in turn generate a new DOI).

	Image: Bow I Source Image: Image		
Nersion	1.0		
	ophonal: woody reterant to software and dataset uploads. Any sting will be accepted, but semantically versioned tay is recommended. See 🕼 server.org for more information on semantic versioning.		
Anguage	e.g.: 'eng', 'fr' or 'Polish'		
Optional. Primary language of the record. Start by typing the language's common name in English, or its ISO 639 code (two or th See 📝 ISO 639 language codes list for more information.			
Neywords 🌑	Nuclear Physics \blacklozenge X		
	Research Data Management 🗢 🗴		

f. The next step is to define the access rights and the license. The selection options include open access (immediate), an embargo period up to six months, restricted access whereby users will need request access, and closed access. These fields can be modified at a later date. For example, closed access or an embargo period can be adopted up until the date of journal publication.

License		required 💙
	Access right *	● ■ Open Access
		○ Ø Embargoed Access
		O 🔍 Restricted Access
		○ 🔒 Closed Access
		Required. Open access uploads have considerably higher visibility on Zenodo.
	License *	Creative Commons Attribution 4.0 International
		Required. Selected license applies to all of your files displayed on the top of the form. If you want to upload some of your files under different licenses, please do so in separate uploads. If you cannot find the license you're looking for, include a relevant LICENSE file in your record and choose one of the Other licenses available (Other (Open) , Other (Attribution) , etc.). The supported licenses in the list are harvested from opendefinition.org C and spdx.org C . If you think that a license is missing from the list, please contact us.

A note on licenses: According to the research data management policy of GSI/FAIR, the open access license should be Creative Commons Attribution 4.0 International (CC-BY 4.0). <u>https://creativecommons.org/licenses/by/4.0/</u>

g. Include any Grants (only openAIRE projects – use the Additional Notes field for any other Grants).

h. In the related identifiers add identifiers such as DOI's to link the record to the published journal article or any software code.

Funding		recommended 💙
Zenodo is integrated into reporting lines for funding agency know!	esearch funded by the European Commission via 🕝 OpenAIRE. Specify grants	which have funded your research, and we will let your
Image: Second	European Commission (EU) Start typing a grant	number, name or abbreviation 🗶
	Optional. OpenAIRE-supported projects only. For other funding acknowledgements, Note: a human Zenodo curator will need to validate your upload - you may experience Add another grant	please use the <i>Additional Notes</i> field. e a delay before it is available in OpenAIRE.
Related/alternate identifiers		recommended 💙
Specify identifiers of related publications an arXiv, Life Scien <u>ce Identifiers (LSID), EAN-13</u>	l datasets. Supported identifiers include: DOI, Handle, ARK, PURL, ISSN, ISBN, I ISTC, URNs and URLs.	PubMed ID, PubMed Central ID, ADS Bibliographic Code,
IIII Related identifiers	e.g. 10.1234/foobar.56789(is cited by this upload	✓ Journal article ✓ ♦ ×
		Optional. Resource type of the related identifier.
	Add another related identifier	

- i. The remainder of the fields (contributors, references,...) can be filled out as desired.
- j. Click 'Save' and then 'Publish'. The record is now available and accessible with the DOI.

Zenodo Search	Q Upload			Lak.mistry@gsi.de ▼				
November 2, 2022 Dataset Closed Access								
GSI Test Dataset		New v	ersion					
Andrew Kishor Mistry Here, the dataset should be described in as much detail as possible. Metadata and other data structure should be given. If needed, a separate document describing the dataset in advanced detail can be uploaded. The data was part of experiment XYZ, collected in the period 24.12.2021 · 05.01.22 at GSI Helmholtzzentrum für Schwerionenforshung GmbH, with experiment number G-22-00123 The experimental instrument used was the DESPEC setup coupled to the SHIP separator This is a randomly generated test dataset for the purposes of providing documentation for publishing data to Zenodo, and linking to the GSI publications repository. The dataset is in the form of Result Data in a table three columns of Energy in electonvolts (eV), counts and etc. etc. The data is given in the format of both .csv and .ascii. Software ABC can be used to open and access the files.								
Preview		*	•					
Sample 1 Energy	Counts	Time	Publication date:					
eV	eV^-1	S	November 2, 2022					
0	9	26.8	DOI 10.5281/zenodo.727	4418				
1	4	29	Nuclear Physics Research D	Data Management				
2	6	27.8						
3	1	33.2						
4	4	29.4	Versions					

Note that additional files will require an iteration of the version number, and thus a new DOI will be generated.

3 Publishing software on Zenodo

Publishing software on Zenodo generates a Digital Object Identifier (DOI) for the software version that is then accessible. Note that it is recommended to use the GSI Gitlab for software developments, or the OSSR. If GitHub is used, this can be done automatically through Zenodo. If the software is on GSI Gitlab (<u>https://git.gsi.de/explore/projects</u>) then proceed to step <u>3.2</u>

To ensure proper tracking and preservation of modified code, utilise version control, or establish a separate repository for the code. Obtain a unique DOI for this new version, and add a record for this versioning/repository in the GSI publications repository (see section $\frac{4}{2}$).

Please note that each new DOI generates costs, and thus please use with consideration. If you wish to test Zenodo, there is a Sandbox version which generates dummy DOIs: <u>https://sandbox.zenodo.org/</u>

The detailed user manual for uploading data to Zenodo can be found here <u>https://doi.org/10.5281/zenodo.5603317</u>

3.1 Publishing on Zenodo via Github

An example is given of some basic test software uploaded to GitHub. The GitHub repository has to be public for this to work. Please ensure that your code has been checked/curated by another party before publishing.

Search or jump to	Pull requests Issues	Marketplace Explore			φ		
A amist88 / GSI_TestS	oftware_RDM Private			O Unwatch 1 + Y Fork 0	* \$\$ s		
⇔ Code ⊙ Issues 🗈	Pull requests 💿 Actions 🖽 Projects	⑦ Security ∠ Insights t\$	Settings				
	12 main - 12 1 branch 🗞 0 tags		Go to file Add file * Code -	About 🕸			
	🌼 amist88 Update README.md		6897545 5 minutes ago 🔞 3 commits	No description, website, or topics provided.			
	README.md	Update README.md	5 minutes ago	☆ 0 stars			
	Software_TestResultData1.ipynb	Add files via upload	18 minutes ago	1 watching			
	Software_TestResultData2.ipynb	Add files via upload	18 minutes ago	¥ 0 tonics			
	READMEINS GSI_TestSoftware_RDM		D	Releases No releases published Create a new release			
	#Here, the code and any associated This is a test example for trial purpo	i metadata should be explained a oses.	s best as possible.	Packages No packages published Publish your first package			
	The data was part of experiment XY Schwerionenforshung GmbH, with DESPEC setup coupled to the SHIP	Languages					
	None of this represents any real scientific data or analysis, and should only be used for test purposes.						
	The two codes are for randomly get /zenodo.7274418						
	The codes extracts data from the .c: Software_TestResultData1.ipynb car with TestResultData2.csv	iv data files, cleans the dataset, a i be used with TestResultData1.cs	nd perform a very basic Gaussian fit. v Software_TestResultData2.ipynb can be used				
	The codes can be used with Juypter	Lab, or Juypter Notebook, which	is avaibale in a webbrowser without the need to				

a. Login to Zenodo (either create an account or preferably use ORCID), and select GitHub from the menu

Zeoco Search Q Upload Communities	≜ a.k.mistry@gsi.de ▼
	Profile Change password
Featured communities	 Security Linked accounts
Coronavirus Disease Research Community - COVID-19	Applications Shared links
This community collects research outputs that may be relevant to the Coronavirus Disease (COVID-19) or the Scientists are encouraged to upload their outcome in this collection to facilitate sharing and discovery of in Although Open Access articles and datasets are Curated by: Covid19_Team_OpenAIRE	O GitHub
	🕒 Log out

Zenodo Search	Q Upload Communities	y@gsi.de ╺		
Home / Account / GitHub				
Settings	O GitHub			
🌲 Profile	Software preservation made simple!			
a Change password	Software preservation made simple:			
Security				
𝒫 Linked accounts	Connect			
Applications				
	To get started, click "Connect" and we will get a list of your repositories from GitHub.			
O GitHub				

b. Connect to your GitHub account, and toggle the code repository you wish to publish to 'On'



c. In GitHub, a release has to be made for the software. Please follow the GitHub guide on releases if you are unsure: <u>GitHub release instructions</u>

Go to file Add file - Code -	About 贷
b897545 17 minutes ago 17 minutes ago 30 minutes ago 30 minutes ago	 No description, website, or topics provided.
P	Releases No releases published Create a new release

After a release is made, a DOI is automatically generated and a zipped version of the released code is automatically uploaded to Zenodo



- d. Add details about the code to the Description field. If necessary, copy and paste the README file from the code repository here.
- e. The next step is to define the access rights and the license. The selection options include open access (immediate), an embargo period up to six months, restricted access whereby users will need request access, and closed access. These fields can be modified at a later date. For example, closed access or an embargo period can be adopted up until the date of journal publication.

The default GSI software license is GPLv3 (GNU General Public License version 3), however **please consult the GSI policy on open software** (internal only) found on the <u>Ethics and Rules page</u>, and consider if the software contains any Technology Transfer aspects, third party software etc. that must be taken into account. When entering this into Zenodo, you have to type "GNU v3" into the License search bar.

License		re	equired 💙
	Access right *	● ■ Open Access	
		○ Ø Embargoed Access	
		O & Restricted Access	
		○	
		Required. Open access uploads have considerably higher visibility on Zenodo.	
	License *	GNU General Public License v3.0 only	
		Required. Selected license applies to all of your files displayed on the top of the form. If you want to upload some of your files under differ please do so in separate uploads. If you cannot find the license you're looking for, include a relevant LICENSE file in your record and choose Other licenses available (Other (Open) , Other (Attribution) , etc.). The supported licenses in the list are harvested from opendefinition.org C sodx org G , if you think that a license is missing from the list please contact us.	nt licenses, one of the and

f. Further down, use related/alternate identifiers to give links to the dataset/journal article.

Related/alternate identifiers	Related/alternate identifiers recommende						~
Specify identifiers of related publications and datasets. Supported identifiers include: DOI, Handle, ARK, PURL, ISSN, ISBN, PubMed ID, PubMed Central ID, ADS Bibliographic Code, arXiv, Life Science Identifiers (LSID), EAN-13, ISTC, URNs and URLs.							
Related identifiers	https://github.com/amist88	is supplemented by this upload	~	N/A	~	\$	×
				Optional. Resource type of the related identifier.			
	+ Add another related identifier						

g. Finally, save and then publish to confirm the edits.

Thesis	optional >
Subjects	optional 🔰
🖻 Delete	Save Veublish

Optional: After publication, you can add a citation file for the published work to your GitHub repository. Please see the documentation: <u>Citing work in GitHub</u>

3.2 Publishing on Zenodo via GSI GitLab

If you publish via GSI Gitlab (<u>https://git.gsi.de/explore/projects</u>) follow the above steps. Please ensure that your code has been checked/curated by another party before publishing.

a. In the GSI GitLab, go to the project page and download the project as a compressed file

G GSI_TestSoftware_RDM ⊕ Project ID: 3195 (∰ -◇- 3 Commits ※ 1 Branch ⊘ 1 Tag 🗔 92 KB Project Storage Ø 1 Release	<pre></pre>
main ~ GSI_TestSoftware_RDM / + ~	Find file Web IDE Clone ~
Update README.md a.k.mistry authored 5 months ago	zip tar.gz tar.bz2 tar
README Add LICENSE Add CHANGELOG Add CONTRIBUTING	nable Auto DevOps 🛛 🕀 Add Kubernetes cluster

b. In Zenodo go to new upload

zenodo	Search Q	Upload	Communities	a.k.mistry@gsi.de	·
Search uploads		Q		• New Upload	

c. Upload the compressed project file and click on "Start Upload". Select Software for the upload type.

Files 💙	đ Cho	ose files 🕢 Start upload	
Filename (1 files)	Size	Progress	Delete
GSI_TestSoftware_RDM-main.zip md5:72f1cd1138b707dfff48485c1618a481	43 kB	~	Ŵ
Note: File addition, removal or modification are not allowed after you have published your upload. This is beca	use a Digital Object Identifier (DOI) is registe	red with 🗹 DataCite for each uploa	ad.
(minimum 1 file required, max 50 GB per	dataset - contact us for larger datasets)		
If you're experiencing issues with uploading large	files, read our FAQ section on file upload iss	ues.	
Communities 🕑			recommended 💙
Specify communities which you wish your upload to appear in. The owner of the community complies with the content policy of the communities you add; reported abuse will be follower	will be notified, and can either accept d by account inactivation.	t or reject your request.Please	make sure your record
Start typing a community name			Q
Upload type			required 💙
Publication Poster Presentation Dataset Image Video/A O O O O O	udio Software Lesson	Physical object Wor	kflow Other

d. Add details about the code to in the Description field. If necessary, copy and paste the README file from the code repository here.



e. Define the Access rights and the license. An embargo period can be selected here up to six months. Alternatively, restricted access can be defined, whereby users will need request access. Finally, closed access will stop all forms of external access. Note that these fields can be modified at a later date. For example, closed access or an embargo period can be adopted up until the date of journal publication.

The default GSI software license is GPLv3 (GNU General Public License version 3), however **please consult the GSI policy on open software** (internal only) found on the <u>Ethics and Rules page</u>, and consider if the software contains any Technology Transfer aspects, third party software etc. that must be taken into account. When entering this into Zenodo, you have to type "GNU v3" into the License search bar.

License			required 💙
	Access right *	 P Open Access Embargoed Access Kestricted Access Closed Access Closed Access Required Open access unloads have considerably higher visibility on Zenodo 	
	License *	GNU General Public License v3.0 only Required. Selected license applies to all of your files displayed on the top of the form. If you want to upload some of your files under differ please do so in separate uploads. If you cannot find the license you're looking for, include a relevant LICENSE file in your record and choor Other licenses available (Other (Open), Other (Attribution), etc.). The supported licenses in the list are harvested from opendefinition.org C spacing GP. If you think that efficience is missing from the list, please contact op.	rent licenses, se one of the and

f. Further down, use related/alternate identifiers to give links to the dataset/journal article.



e. Finally, save and then publish to confirm the edits.

Thesis	optional 🔰
Subjects	optional 🕨
🖻 Delete	🗅 Save 🗸 Publish

A DOI is automatically generated and the project is available

April 27, 2023 s	oftware Open Access	C	Edit
GSI_TestSoftware_RDM		New	version
() Andrew			
GSI_TestSoftware_RDM		0	0
#Here, the code and any associated metadata should be explained as best as possible.		views	at downloads
This is a test example for trial purposes.		See mor	e details
The data was part of experiment XYZ, collected in the period $24.12.2021 - 05.01.22$ at GSI Helmholtzzer Schwerionenforshung GmbH, with experiment number G-22-00123 The experimental instrument used v setup coupled to the SHIP separator.	trum für vas the DESPEC		
None of this represents any real scientific data or analysis, and should only be used for test purposes.		Indexed in	
The two codes are for randomly generated datasets which can be found here: Result Datasets $https://dx/22000.7274418$	bi.org/10.5281	Onoc	AIDE
The codes extracts data from the .csv data files, cleans the dataset, and perform a very basic Gaussian Software_TestResultData1.ipynb can be used with TestResultData1.csv Software_TestResultData2.ipyn TestResultData2.csv	fit. b can be used with	Oper	
The codes can be used with JuypterLab, or Juypter Notebook, which is avaibale in a webbrowser without any software locally. https://jupyter.org/try	t the need to install	Publication date:	
Preview	~	April 27, 2023 DOI:	
GSI_TestSoftware_RDM-main.zip	8 ^	DOI 10.5281/zenodo.78	71130
 GSI_TestSoftware_RDM-main [®] README.md [®] Software_TestResultData1.ipynb [®] Software_TestResultData2.ipynb 	1.1 kB 29.6 kB 29.3 kB	Supplement to 10.5281/zenodo.72744 License (for files):	18 (Dataset) .icense v3.0 only

4 Linking entries between publication and research data/software in the GSI repository

This example focusses on Zenodo, but applies to any item published with a DOI (or other persistent identifier) in an external repository. The workflow for journal/data/software is given here:



The instructions on how to execute the workflow are given in the following. If help is needed with any of the steps, please contact the open science team (<u>open-science@gsi.de</u>) (note: support only available for users of the GSI/FAIR Facility)

- a. In the GSI repository (<u>https://repository.gsi.de/</u>), first create the record of the journal article/written publication. A description of how to do this can be found here: <u>https://join2.de/Main/GSItipps</u>
- b. Next is to create a record for the dataset. Select "SUBMIT".

GSI REPOSITORY					
SEARCH SUBMIT PERSONALIZE + HELP ADMINISTRATION -					
Search 174,470 records for:					
any field v Search Browse					
Search Tips					
GSI's portal to the references of the scientific publications and to the open access full texts					
Recent additions to publications database					
GSI Scientific Reports 2021, 2020, 2019, 2018, 2017, 2016, 2015, 2014, 2013, 2012, 2011, 2010, 2009, 2008, 2007, 2006, 2005, 200 1988, 1987, 1986, 1985, 1984, 1983, 1982, 1981, 1980, 1979, 1981/82, 1979/80, 1977, 1976					
GSI Short Reports 2020, 2019					
GSI FUE Programs 2020, 2019					
Narrow by collection: ✓ Publications database (16,432) ✓ Open Access (3,389)					

c. Scroll down to "Other Resources" and select "Dataset". This will load the submission form



d. Go to the external repository and copy the Digital Object Identifier (DOI): example here is given of a test dataset in Zenodo.

zenodo	Search	Q Upload	Communities		≗ a.k.mistry@gsi.de
November 2, 2022			Dataset Closed Access		Edit
GSI Test D	Dataset			New	version
Andrew Kishor Mistry					
Here, the dataset should b needed, a separate docun	be described in as much detail a ment describing the dataset in a	s possible. Metadata and other dvanced detail can be uploaded.	data structure should be given. If	0	0
The data was part of expe Schwerionenforshung Gm	eriment XYZ, collected in the per nbH, with experiment number G	views See mo	▲ downloads re details		
The experimental instrum	nent used was the DESPEC setu	p coupled to the SHIP separator			
This is a randomly genera linking to the GSI publicat	ated test dataset for the purpose tions repository.	es of providing documentation fo	r publishing data to Zenodo, and		
The dataset is in the form	n of Result Data in a table three o	columns of Energy in electonvolt	s (eV), counts and etc. etc.	Indexed in	
The data is given in the format of both .csv and .ascii. Software ABC can be used to open and access the files.					
Preview			~		
Sample 1	Energy	Counts	Time	Publication date:	
	eV	eV^-1	S	November 2, 2022	
	0	9	26.8	DOI: 10.5281/zenodo.72	274418
	1	KeyWoru(5). Nuclear Physics Research	Data Management		
	2	6	27.8		
	2 3	6	33.2		

e. In the GSI repository submission form, copy the DOI (e.g. 10.5281/zenodo.7274418) into the 'Import data' field and press enter. The fields should load into the form.

Submit New Record

Da	itaset			
	Dataset Submission			
	Import data 🕕 10.5281/zenodo.7274418	Import history	Use the IMPORT field above to import from bibliographic resources or other records.	Your imports will show up here

f. Please fill in the remaining fields (e.g. POF4, Department, ensure relevant for VDB is selected etc.)

Dataset Submission				
Import data 🔘 e.g. DOI, arXiv, PUBMED	Import history Undo	GSI Test Dataset / Andrew Kishor 10.5281/ZENODO.7274418 ;	Mistry {GSI Helmholtzzentrum für Schwerionenf	prschung GmbH} ; 2022 ;
Relevant for VDB 0 o yes O no Supported by GSI/Usage o	f GSI Facilities 🕕 💿 yes 🔿 no			
GSI Department(s) 🕕				
BUD: Bibliothek & Dokumentation (20051214205744.0Z)				
POF IV Topic 🕕				
623 - Data Management and Analysis (POF IV: 2021 - 2026)				
Select from list or type ID, Name of POF-Topic				
Grant name (e.g. EU project/F&E project/FAIR Phase-0/etc.) 🕕	Experimentproposalnumber 🕕			
623 - Data Management and Analysis (POF IV: 2021 - 2026)	Altdaten therefore no facility e.g. E080	×		
Author(s) / Contributor(s) 🕛 🍰				
Mistry, Andrew. K> Mistry, Andrew. K. (GSI: a.k.mistry@gsi.de[a.k.mistry@gsi.de / GF[RED] Corresponding author [GSI Helmholtzzentrum für Schwerionenforschung GmbH]				
Start typing lastname and select				
Start typing lastname and select				

g. Make sure to edit the primary author and select them as 'corresponding author from the drop down list

Author(s) / Contributor(s) 🕔	
Mistry, Andrew. K> Mistry, Andrew. K. (GSI: a.k.mistry@gsi.de a.k.mistry@gsi.de / GF RED) Corresponding author [GSI Helmholtzzentrum für Schwerionenforschung GmbH]	0
Start typing lastname and select	
Edit Author: 0	× (
Corresponding author	
Mistry, Andrew. K.	
Institution:	
GSI: GSI Helmholtzzentrum für Schwerionenforschung GmbH ×	
Choose from list or enter search term	
	ОК

h. If the record of a publication is available in the GSI repository please enter this information into the 'Additional information/General Notes' field.

Internation Test Image: State of the state of	1	
GSI Test Journal Article for Research Data Management <u>Mistry A. K.</u> (Corresponding author) [*] 2022 Nature Publ. Group London [s.a.]		The journal publication record is shown here with its recordID
Nature <london> 605, 1 (2022) O</london>		

dditional information / general notes 🕕
ournal Article GSI record: GSI-2022-00011

i. At the bottom of the page, click the "Finish & Release" button.



j. If you plan to also publish the software, omit this step until the software record has been entered. Open the newly created record and at the bottom of the page click '**Request correction'**. An email link should appear where you can specify that you wish the linking between dataset/software and article which will inform the library department to do this step.



Only after the document has been cross-checked by the editors (RDM officer/library) does the record become public, and only then are linking and data searches available (in the meantime they remain restricted and the full link cannot be seen).

k. When entering the software record in the GSI publications repository, please do the same as for the dataset record. In this case, please provide the RecordID for the journal record (internal GSI record) in the 'Additional information/general notes' field, and in addition the RecordID for the dataset record (if applicable). Then select 'Request correction' at the bottom of the record page. This is to notify the Library and documentation department that this should be linked back to the journal article record.

In the additional information field, the journal article ID is given.



In summary, if you have a journal article, a dataset and software that is published externally, In the GSI publications repository:

- 1. Create a journal article record and note the journal recordID.
- 2. Create a Dataset record and import the external dataset repository record via the DOI (e.g. in Zenodo). Then, write the journal recordID into the 'Additional information/General Notes' field
- 3. Create a Software record. Again, link to the external repository with the DOI (e.g. in Zenodo). Write the journal recordID AND the dataset recordID (if applicable) into the 'Additional information/General Notes' field
- 4. Go to any of the records and click 'Request correction' at the bottom of the page. In the email that appears, state that the records should be linked

The remaining steps to link the software record to the journal article record and vice versa will be completed by the RDM coordinator/library and documentation department.

The example below shows a completed record with dataset and software linked after the library and documentation department, or RDM coordinator has completed the final linking steps.

Information Files Holdings					
00028-0836					
Journal Article	<u>GSI-2022-00011</u>				
GSI Test Journal Article for Research Data Management					
Mistry, A	<u>. K.</u> (Corresponding author)*				
	2022				
Nat	ure Publ. Group London [u.a.]				
Nature <london> 605, 1 (2022)</london>	Nature <london> 605. 1 (2022)</london>				
Abstract: This is a test record to describe how to link research data from an external repository	to the GSI publications repository				
Classification:					
ddc: <u>500</u> Contributing Institute/s):					
1 Ribliothek & Dekumentation (RUD)					
1. <u>Bibliothek & Dokumentation (BUD)</u>					
A 512 Coopie Matter in the Laboratory (POE4 512) (POE4 512)					
Eventiment(s):	1. <u>612 - Cosmic Matter In the Laboratory (POF4-612) (POF4-612)</u>				
1 (Altdaten therefore no facility)					
Database coverage: Publiced environment Pipipipipi Abstraction Observiced Reserviced					
Environmental Sciences; Current Contents - Life Sciences; Current Contents - Physical, Chemical and Earth Sciences; Ebsco Academic Search; Essential Science					
Indicators ; IF >= 40 ; Index Chemicus ; JCR ; Nationallizenz gefördert von der DFG ; SCOPUS ; Science Citation Index Expanded ; Web of Science Core Collection ;					
Zoological Record					
The record appears in these collections:					
Private Institute collections > >WGF > >RED > BUD Billion Document types > Articles > Journal Article					
Infrastructure > Library & Documentation Workflow collections > Public records					
Publications database					
Linked articles:					
Software					
Mistry, A. K. (Corresponding author)* amist88/GSI TestSoftware RDM: GSI Test Code Release 1					
[<u>10.5281/ZENODO.7277784</u>]					
Dataset	<u>Biotex</u> Enalyde: <u>XML, Test RIS</u>				
Mistry, A. K. (Corresponding author)* GSI Test Dataset for Research Data Management					
[<u>10.5281/ZENODO.7274418]</u>	RINTSV I FANKAN VIII TON I FIN				
Record created 2022-11-02, last modified 2022-11-03	BUIKI (DIWOR AM, 121 122				
	Similar records				

If modifications are needed, this can be done with the "Modify this record" button in the lower right corner of the record view, as long as the entry has not yet been processed in the workflow. If you still need to make changes then please use the "Request correction" link in the lower right corner of the detailed record view. An email will automatically be sent to gsilibrary@gsi.de

5 Useful Links

GSI Ethics and Rules Link: https://www.gsi.de/en/work/research/ethics_rules

GSI/FAIR Open Science Webpage: https://www.gsi.de/work/forschung/open-science

GSI repository: https://repository.gsi.de/

GSI repository Wiki Guide: <u>https://join2.de/Main/GSIHelpAndTipps</u>

Zenodo https://zenodo.org/

Zenodo user guide: https://doi.org/10.5281/zenodo.5603317

Zenodo Sandbox (for testing purposes) https://sandbox.zenodo.org/

GitHub release project notes: <u>https://docs.GitHub.com/en/repositories/releasing-projects-on-GitHub/managing-releases-in-a-repository</u>

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6 Additional technical notes for maintainers

Linking to manuscripts, datasets and software (golden triangle of interoperability). This is done by entering justlink:[record ID] or justlink:[DOI] in the import field (via Modify Record). Although a single record can have multiple links, you can only enter one link per record. Therefore, to link a single record (A) to multiple others (B, and C), you should enter the linking information through records B, C.

To link three objects A, B and C; in record A use justlink: B and so on as shown in the diagram below:



When there is more than one dataset to link to a given journal record, use justlink on both dataset records to the journal article (note: software cannot be linked in this case to dataset record D).



Below is the record of A after following the above A, B, C, D workflow.

Information Files Holdings					
02041-1723 Journal Article	<u>GSI-2023-00005</u>				
A. Journal Record					
<u>Mistry, A. K.</u> (Correspond	ling author)*				
2023 Nature Publishing Group UK [London]					
Nature Communications 1(1), 1 (2023)					
Abstract: Explanation on justlink connections in JOIN2 Repo					
Classification:					
. 110-500					
Contributing Institute(s):					
1. <u>Bibliothek & Dokumentation (BUD)</u>					
Research Program(s):					
1. 623 - Data Management and Analysis (POF4-623) (POF4-623)					
Database coverage: Publiced (w), (Coverage), DOA UNITY of Deprivaces (Coverage), Article Processing Charges; BIOSIS Previews; Biological Abstracts; Clarivate Analytics Master Journal List; Current Contents - Article Processing Charges; BIOSIS Previews; Biological Abstracts; Clarivate Analytics Master Journal List; Current Contents - Article Processing Charges; BIOSIS Previews; Biological Abstracts; Clarivate Analytics Master Journal List; Current Contents - Life Sciences; Current Contents - Physical, Chemical and Earth Sciences; DOAJ Seal; Essential Science Indicators; Fees; IF >= 10; JCR; PubMed Central; SCOPUS; Science Citation Index Expanded; Web of Science Core Collection; Zoological Record					
The record appears in these collections: Private Institute collections > WGF > RED > BUD Document types > Articles > Journal Article Infrastructure > Library & Documentation Workflow collections > Public records Publications database					
Linked articles:					
Dataset <u>Mistry, A. K.</u> (Corresponding author) [*]					
Obtaset	BINTEX EndNote: XAIL, Test RIS				
Mistry, A. K. (Corresponding author)*					
D. Databet Record	BIOTEX EndNote: XML, Text RIS				
Mistry, A. K. (Corresponding author)*					
B. Software Record	BIDTEX EndNote: XML, Text RIS				
Record created 2023-02-15, last modified 2023-02-15	Similar records				