



**Utrecht  
University**

**Freudenthal Institute**

# *Data Management Protocol*



**Utrecht  
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# FI Data Management Protocol

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## Introduction

In line with UU regulations<sup>1</sup>, this document describes the way research data should be handled in projects carried out under the responsibility of the Freudenthal Institute (FI) at Utrecht University (UU). It is a practical manual, providing guidance to its users. Typical users who should behave according to the procedure described here include:

- Utrecht University employees working for the FI;
- PhD candidates working under supervision of a FI supervisor, including external PhD candidates;
- Postdocs working on FI-based research projects;
- Students (bachelor and master level) carrying out research projects under supervision of an FI supervisor.

Below, we describe **(1) research data collection, (2) data handling and privacy, and (3) technical guidelines for data storage**. Finally, the appendices provide some examples of information and consent forms, data management plans and meta-information readme texts.

## 1. Research data collection

Much of the data collected in FI research concerns data obtained from people: interviews, test scores, video observations etc. This implies that privacy is a major issue in collecting and handling data. Before deciding on storing and collecting data, therefore, privacy and other ethical issues need to be addressed. Furthermore, requirements by funding bodies and publication agencies (conferences, journals) need to be taken into account. Please check out the specific requirements of your funding body; the principles in this section only provide some major considerations.

- *QuickScan*  
The Quickscan<sup>2</sup> is a form designed to help and guide researchers and supervisors with privacy/ethical concerns related to their research. It is intended to provide extensive information as to whether a research project requires “Fuller Ethical Review”, “Fuller Privacy Assessment”, both or neither. It is compulsory for all the researchers described in the introduction paragraph to fill in the QuickScan long before they start collecting data for their research.
- *Data Management Plan (DMP)*  
It is strongly advised—and usually required by your funding organization—to set up a Data Management Plan. This will help you think about the data you will collect and facilitate its reuse by delineating how you will make your data Findable, Accessible, Interoperable and Reusable (FAIR) during and after the project. Find guidelines for such a plan on <https://www.uu.nl/en/research/research-data-management>. It is recommended to use the DMP online format<sup>3</sup>, which is according to UU guidelines and approved by NWO and ZonMW. Make sure to have your DMP reviewed by one

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<sup>1</sup> [https://www.uu.nl/sites/default/files/university\\_policy\\_framework\\_for\\_research\\_data\\_utrecht\\_university\\_-\\_january\\_2016.pdf](https://www.uu.nl/sites/default/files/university_policy_framework_for_research_data_utrecht_university_-_january_2016.pdf)

<sup>2</sup> [https://survey.uu.nl/jfe/form/SV\\_d7reLtNDaMfFY6g](https://survey.uu.nl/jfe/form/SV_d7reLtNDaMfFY6g)

<sup>3</sup> <https://dmponline.dcc.ac.uk/>. Sign in with institutional credentials, using your Solis-ID. See also <https://www.uu.nl/en/research/research-data-management/tools-services/tool-to-create-your-dmp-online>

of the colleagues of Research Data Management Support<sup>4</sup>. Some examples of DMPs are available through the scientific director (Prof. Dr. Paul Drijvers).

- *Ethical approval*

It is not uncommon that scientific journals require ethical approval of your study as a precondition for publishing its results. Based on the nature of your research, QuickScan will definitely help you determine whether you need Full Ethical Review or not. To acquire such approval, you can submit a request to the Ethics Review Board of the faculties of Science and Geosciences, known in Dutch as the ETC Bèta-Geo<sup>5</sup>. See "[Ethics Assessment](#)" intranet webpage for information and the application form. Some examples of such filled-in forms are available through the scientific director. Make sure to be in time with your request, at least two months before the actual data collection!

- *Informing participants*

Participants have the right to know the purpose of the study and what personal data will be stored. Therefore, it is important to inform them beforehand. If telling them everything before the data collection would hinder your research, debrief them afterwards. Also share your contact information, so participants can inquire about the data you store about them. They have a legal right to **(1) inspect the data you have stored about them and (2) to be forgotten**, i.e., that you delete their personal data. Structure your data in such a way that that is possible. Also, provide an opportunity to make complaints at [privacy@uu.nl](mailto:privacy@uu.nl). See Appendix A for an example of an information letter in Dutch. An English version is available through your scientific director.

- *Participants' consent*

Never collect personal data without prior consent of the subject. For participants below the age of 16 years old, parents/caregivers need to give their consent as well (see <https://gdpr-info.eu/art-8-gdpr/>). The way consent is given may depend on circumstances. A written consent by the participants or parents will usually be needed for written work and video data. For an interview, a spoken consent at the start can suffice. Sometimes schools include a generic consent in their contract with parents. Check which type of consent applies to your project. The ethical committee will want to be informed about the way you plan to obtain consent. See Appendix B for an example of a consent form, in which two types of data are distinguished. An English version is available through your scientific director. Some online questionnaire software products, such as Qualtrics®, offer means for providing online consent. Store written consents in a protected folder, e.g., the personal research data folder of the principal investigator, as to avoid possible matching between consent data and other data. As an aside, there are other legal bases for gathering or using data apart from informed consent. If you want to know more about this, please contact UU's research data office through [info.rdm@uu.nl](mailto:info.rdm@uu.nl).

- *Outside use*

If you want to use data that can be traced back to one of your participants, outside the original use, for instance a video in a presentation or a picture in your thesis, ask for specific permission.

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<sup>4</sup> <https://www.uu.nl/en/research/research-data-management/tools-services/data-management-plan-review>

<sup>5</sup> <https://www.uu.nl/en/organisation/faculty-of-geosciences/about-the-faculty/ethical-review>

- *General Concerns*
  - i. *Be careful and minimal*  
Collect the data you need, but do not ask more of participants' time and effort than needed for answering your research question. Also do not store more than you need. If there is no need to store personal details, then do not.
  - ii. *Share your results*  
Make your results available to your participants, for instance by sending them a link to a publication you write about the study. Even better: make a laymen's summary and mail it to the participants or publish it online.
  - iii. *Be kind and polite at all times*  
Admittedly, this is a very general guideline. However, be aware that you represent Utrecht University, that you might need participants' collaboration at some point after data collection, and that we want society to have a high esteem of scientific research. So, don't forget your participants in the "stress" of data collection.

## 2. Data handling and privacy

This section contains some general guidelines on handling your data, as well as privacy and maintenance measures.

### Data control

Whereas the university will be the formal controller of the data produced and collected in UU projects, each data set will have a specific controller.

- The standard case is that the controller is the principal researcher of the specific research project in which the data is produced or collected;
- In case of a master student, the controller is the student's supervisor;
- In case of a project that involves multiple persons within the FI, the principal researcher is the controller of the data;
- In case of a joint project of FI with other institutes, data control will be settled in the project's data management plan, which will include agreements on data use by all project partners.

### Data handling

- *Data backups*  
Electronic data is volatile. Hard disks may crash, USB sticks may get lost, and laptops may be stolen. So, make backups, also during data collection, in the Beta File System (BFS) as soon as possible. Details on how to do that are elaborated in the next section.
- *Data upload*  
Data is especially in danger when transported. The preferred way is to transfer data electronically over an encrypted connection. The following means are recommended:
  - i. Directly over a VPN connection to BFS (see next section).
  - ii. Using SURF file sender (<https://www.surffilesender.nl/>) with encryption on. The password should be transferred over a different medium, e.g., a text message.

iii. Your UU-OneDrive<sup>6</sup>.

If electronic transfer is not possible, data may be transferred on a portable medium if that medium is encrypted. So please consider encrypting the hard disk of your laptop.

- *Data on paper and analysis files*

Paper material, such as filled in questionnaires or student written work or test: Scan them and treat the resulting files as original data.

Treat results of data analysis in the same way as your original data. The SPSS file or typed and scored manuscript has probably cost a great amount of time. Also, these data may still be privacy sensitive. Thus, after being scanned and properly secured, all paper material should be destroyed with a paper shredder.

### **Privacy awareness**

- *Access*

Ensure that only people who should work with your data have access. If for instance a student will code your data, he or she needs access. They should sign a contract stating that they will use the data only for the purpose of the work agreed. See Appendix C for an example of such a contract. People working on your data should keep to all privacy and storage rules stated in this document.

- *Sharing*

If you want to share your data outside of your project team, for example through <https://dans.knaw.nl/nl>, please make sure they are anonymized, i.e., data can no longer be traced back to the subject by any plausible means. For video data, blur faces.

- *Data Protection Impact Assessment*

Data Protection Impact Assessment, abbreviated as DPIA (Gegevensbeschermings-effectbeoordeling GBEB in Dutch) should be carried out if data processing is likely to pose a high privacy risk for the data subjects. Please check

<https://www.uu.nl/en/research/research-data-management/guides/handling-personal-data>.

### **Data maintenance**

- *Transparency*

To make research transparent and traceable and per regulation, data must be retained for at least ten years from the release of the most recent publication based on it. Storage for these data will be on BFS. Please see next section.

- *After the study*

After a researcher or student has left, data will be moved to the Archive area of BFS, which is maintained by the data manager of FI.

- *Documentation*

Data should be documented: when were they collected, which publications are related and when were these published. Do so through a ReadMe file (see next section). Should there be any change in research data, these changes should be

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<sup>6</sup> This OneDrive account must be your UU OneDrive account. You're not supposed to use personal OneDrive (or as such cloud storage solution) to send or store research data

logged in data documentation. Researchers remain sole responsible for updating the data documentation.

### 3. Technical guidelines for data storage

This section contains the technical and procedural information needed to store research data on the Beta File System (abbreviated as BFS, previously known as Betastor), the science faculty's storage facility for research data that is safe and privacy compliant. General information on data storage at UU can be found at <https://tools.uu.nl/storagefinder/>; we strongly recommend BFS.

#### Access to the BFS data storage

There are different volumes on the BFS data storage, but one you would like to access is called FI-Researchers. This is where research data from research projects are stored, either in folders with names of an individual researcher, or—in most cases—in folders with names of research projects. The following steps lead to obtaining access to the storage.

For bachelor and master students:

- Access will be requested by their supervisor. Supervisors are not only responsible for requesting access, they are also responsible for storing the data since bachelor and master students have no access to the BFS storage.

For employees and PhD candidates:

- Ask Nathalie Kuijpers ([n.kuijpers@uu.nl](mailto:n.kuijpers@uu.nl)) to give you access to FI-Researchers folder. In your mail mention your Solis-ID (the one you use to log in on the intranet, e.g., jool033). It may take a few hours between granting access and actually being able to access the partition.
- If you work from home, make sure to connect through a VPN connection (AnyConnect, see <https://intranet.uu.nl/mobiel-werken-solis-vpn>).
- Create a map network drive map in Windows Explorer (or equivalent for Mac OS) to assign your network volume to a drive letter. The path to map to is [\\soliscom.uu.nl/science/projects/FI-Researchers/users/\[solisname\]](https://soliscom.uu.nl/science/projects/FI-Researchers/users/[solisname]). On [https://ict.science.uu.nl/index.php/Personal\\_storage#Using\\_Windows](https://ict.science.uu.nl/index.php/Personal_storage#Using_Windows) you find instructions set up a network drive.
- If 'Enter network credentials' appears, please use your Solis-ID and **not** your email address.
- After opening the new drive in Explorer/Finder, you should see a folder with the name of your Solis-ID. This is the folder where you should store your data.
- You can also access BFS in your browser (e.g., Chrome, Firefox, Edge, etc.) through [https://intercon.science.uu.nl/science/projects/FI-Researchers/users/\[solisname\]](https://intercon.science.uu.nl/science/projects/FI-Researchers/users/[solisname]).

#### Where to store the data?

For folder names, the following guidelines apply.

- Please use one folder in FI-Researchers for each project. Please be aware that the project folder is accessible to all FI researchers. This means that you should not use it for data that is too sensitive to be exposed to their eyes. In case you really need a shared folder with limited access, this can be requested for through Nathalie Kuijpers ([n.kuijpers@uu.nl](mailto:n.kuijpers@uu.nl)).

- For PhD-projects, please create a folder called PHD [Name Surname] in FI-Researchers.
- For research projects in which multiple FI-researchers are involved, please create a folder with the name of the research project within the “projects” folder in FI-Researchers. Make a subfolder with the project name and store the data there, using the same guidelines as for individual projects.
- For an individual researcher’s project, please store your data in a dedicated subfolder of your personal folder. Provide meaningful names to the study and start the name with the year followed by the month, indicating the time when data collection started (*yearmonth-Topic*). Example: [201805 - Thesis Study 1], meaning that data collection of the study called: “Thesis Study 1” started in May 2018.
- For a master and bachelor theses, the supervisor stores the data as a separate folder in their personal domain.

### What to store in the data storage?

You have to store all data you collect. This may include but is not limited to:

- Raw video and audio data collected from interviews and observations
- Transcriptions of video or audio recordings
- Scans of filled in questionnaires or other forms of documents
- Data tables collected from online questionnaires
- Log files from software used by participants in your studies
- Written notes from observations
- Approval form by Ethical Committee Bèta-GEO.
- Store your data in a pseudonymized way, i.e., so that data cannot be directly linked to participants. There may be a need to maintain a link from the pseudonymized data to the original person from whom those data were obtained, though. In this case, the file containing these links should be encrypted with a password to prevent accidental reading by others. The passwords for such files should be kept by Nathalie Kuijpers ([n.kuijpers@uu.nl](mailto:n.kuijpers@uu.nl)). As soon as the need for maintaining the link has expired—usually when the data set is complete—such files should be deleted.

Also, the data storage is meant to store processed data such as:

- Annotations of videos
- Tables with scores from analysing think-aloud protocols, interviews or other observations
- Tables with scores from questionnaires
- SPSS files used to process data
- Result tables of analyses

So, please use the BFS research data storage as a place to store all data, raw and processed that is necessary to trace what you have done in collecting and processing your data for research. Note, however, that it is a storage place rather than a place to work on your data, even if, depending on your connection, you may be able to work on them. Recovery to previous versions is possible, if needed<sup>7</sup>.

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<sup>7</sup>[https://ict.science.uu.nl/index.php/Project\\_storage:\\_how\\_to#How\\_to\\_restore\\_previous\\_versions\\_of\\_a\\_file\\_.28Windows\\_and\\_Linux\\_only.29](https://ict.science.uu.nl/index.php/Project_storage:_how_to#How_to_restore_previous_versions_of_a_file_.28Windows_and_Linux_only.29)



## Long-term perspective

The data storage is meant for long term data storage, as to be able to reconstruct and underpin published results. The general UU rule is that data should be stored at least for 10 years (<https://www.uu.nl/en/research/research-data-management/faq>). This means that the data needs to be stored possibly years after (many of) you have left the university. Therefore, it is important that future colleagues will know what to do with the data without having to consult you. For this, the following rules should be taken into account:

- *All data and data only*  
Following the description above, store all data in the storage so when needed, it can be retrieved on request without anything missing. Do not use the data storage as backup for anything that is not research data.
- *Include a ReadMe file*  
As already mentioned above, add a ReadMe file in Word format or plain text to each folder. On the top of the readme file include a status, which can be: “Data in use”, “Submitted – date”, “Published – date - link”. Data in use means you are still working on it. The other two status descriptions indicate the publications based on the data in the current folder. There may be more publications linked to one data set of course. Include status lines for each of them.  
A PhD or master thesis is also a publication. The status will be used to decide whether data can be deleted at a certain point in time, so update for each publication! Furthermore, the ReadMe should contain a description of the data. If there are subfolders, describe what is in there. Register dates for changes to the data set. An example ReadMe is provided as Appendix D to this document.
- *Be transparent*  
Look at your data folder through the eyes of someone who does not know your work. Will he or she understand what the files mean? Will he or she be able to decide whether the data needs to be retained or can be deleted? Would another researcher be capable of using the data?
- *Questions or need for support?*  
At any time during your research, do not hesitate to contact Research Data Management (RDM) Support<sup>8</sup> with your research data management questions or concerns. If in any doubt, discuss with others (colleague, supervisor), the data manager or the research director.

Sticking to these rules ensures that the data are in good hands, even after projects have ended.

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<sup>8</sup> <https://www.uu.nl/en/research/research-data-management>

# Appendices

## Appendix A: Example of Participant Information Letter

[plaats], [datum]

*Betreft:* Deelname aan onderzoek van de Universiteit Utrecht: “[projecttitel]”

Beste leerling,

Deze brief gaat over ons onderzoek naar [omschrijving]. In deze brief geven wij je informatie over het onderzoek en aan het einde vragen we of je aan het onderzoek wilt meedoen.

### **Wat onderzoeken we?**

[lekeninleiding op onderzoeksdoel]

### **Wat ga jij doen in het onderzoek?**

[concrete omschrijving van wat deelname inhoudt en welke data worden verzameld]

Het onderzoek zal plaatsvinden in de periode [invullen].

### **Je deelname is vertrouwelijk en vrijwillig**

Je neemt geheel vrijwillig en vrijblijvend aan dit onderzoek deel. Je kunt op elk moment je deelname beëindigen of weigeren. Hiervoor hoef je geen enkele reden op te geven. Het heeft bovendien geen enkel nadelig gevolg. We bewaren alle gegevens vertrouwelijk. Jouw identiteit en de onderzoeksgegevens bewaren we altijd gescheiden en alleen de hoofdonderzoeker heeft de sleutel om ze aan elkaar te koppelen. De gegevens worden geanonimiseerd zodat ze op geen enkele wijze op jou terug te leiden zijn. Ze worden gebruikt in een (wetenschappelijke) publicatie over het onderzoek en blijven 10 jaar bewaard. Als je vragen of klachten over het onderzoek hebt en deze niet wilt bespreken met de onderzoeksleider, kun je terecht bij je mentor of de vertrouwenspersoon van school. Als je zorgen hebt over de manier waarop met privacy wordt omgegaan, kun je dit melden via [privacy@uu.nl](mailto:privacy@uu.nl).

### **Toestemming**

Als je wilt deelnemen, vul je onderstaande toestemmingsverklaring in. Als je 15 jaar of jonger bent, moet een ouder of verzorger ook toestemming geven. Zelf moet je altijd tekenen voor toestemming. Mocht je nu of achteraf vragen hebben over dit onderzoek en het verzamelen en gebruiken van je persoonlijke gegevens, dan kun je contact opnemen met [onderzoeker + emailadres].

Als je deel wilt nemen, onderteken jij (en eventueel je ouders) de toestemmingsverklaring en geeft het aan je docent.

Met vriendelijke groeten,

[naam onderzoeker]

Universiteit Utrecht

E-mail: [email onderzoeker]

## Appendix B: Example of Consent Letter

### Toestemmingsverklaring voor deelname in het onderzoek [titel onderzoek]

Door jouw/uw toestemming te geven, verklaar jij/verklaart u het volgende:

Ik verklaar dat ik de informatiebrief over het onderzoek van de Universiteit van Utrecht heb gelezen en begrepen. Ik heb de mogelijkheid gekregen om vragen te stellen over het onderzoek. Ik ben voldoende geïnformeerd.

Ik ben ervan op de hoogte dat ik op elk moment mijn toestemming voor de dit onderzoek kan intrekken, zonder opgaaf van redenen. Intrekking van mijn toestemming zal op geen enkele wijze nadelige gevolgen voor mij hebben.

Als je toestemming geeft, wil je hieronder dan de vakjes aankruisen?

Ik geef toestemming voor deelname aan het onderzoek, inclusief (**kruis hieronder aan**):

het gebruik van mijn (digitale) werk inclusief de toetsen en mijn laatste rapportcijfer wiskunde,

het gebruik van geluids- en video-opnames

Toestemming van de **leerling**:

Voorletters leerling: \_\_\_\_\_

Achternaam leerling: \_\_\_\_\_

Roepnaam leerling: \_\_\_\_\_

Geboortedatum leerling: \_\_\_\_\_

Datum en plaats: \_\_\_\_\_

Handtekening: \_\_\_\_\_

Toestemming **ouder/verzorger** (verplicht bij leerlingen tot en met 15 jaar, gewenst bij 16-17 jaar)

Naam ouder/verzorger: \_\_\_\_\_

Handtekening: \_\_\_\_\_

**Lever dit formulier getekend in bij je docent**

**Appendix C: Example of a contract on processing data by a person not directly involved with the project**

The undersigned:

[name of owner of the data], hereafter called the owner of the data

and

[name of person working with the data], hereafter called the [assistant, use other term if more appropriate]

Agree that assistant:

1. is assigned a task involving access to research data collected within the research project [name], performed under the responsibility of owner, within the context of the data management plan of the Freudenthal Institute;
2. gets access to the data for the sole purpose of executing this task;
3. will ensure that the data cannot be accessed by any other person other than agreed with the owner;
4. will destroy any copy of the data in his or her possession on completion of the task.

Signed,

Owner

Assistant

Name:

Name:

Place, date:

Place, date:

## Appendix D: Example of ReadMe file

All information in this file is just for illustration and does not apply to any real existing data. The screen shot at the end shows a possible organization of your folder in sub-folders.

### Metadata

- Owner of the data in this folder: <name>
- Supervisor (if applicable): <none>
- Name of the study: <title>
- Time period in which data was collected: October-December 2017
- Kind of data: Videos and Annotations

### Status

[Choose between: In Use, Submitted – Date, Published – Date – Link to online article]  
Multiple lines possible.

### Notes

Folder “videos” contains the raw video material from six cameras in the teaching and learning lab.

Folder “scores” consists of excel tables with time-stamped fragments that were scored

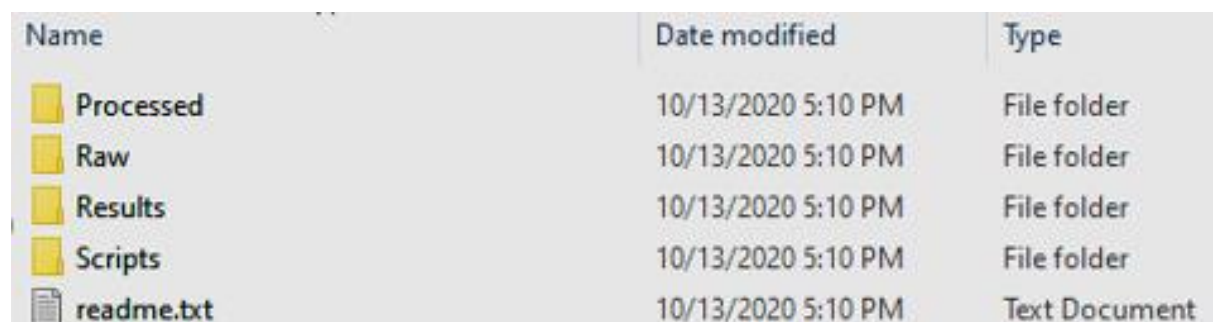
Folder “logs” contains log files of the software used. Software to read is available in the same folder.

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### Log

Date	Event
19-06-2022	Added video files session 1. Named Session_1_<camera number>.mp4
26-06-2022	Added video files session 1. Named Session_2_<camera number>.mp4
28-06-2022	Added Session_1.xls with codes.
	...

The following screen shot shows a possible organization of your folder in sub-folders.



Name	Date modified	Type
Processed	10/13/2020 5:10 PM	File folder
Raw	10/13/2020 5:10 PM	File folder
Results	10/13/2020 5:10 PM	File folder
Scripts	10/13/2020 5:10 PM	File folder
readme.txt	10/13/2020 5:10 PM	Text Document