

Instructions and guidance for output, ingest and transfer requests

Summary and meta description

How researcher-requested outputs, ingests and transfers are practically implemented within the Five Safes Framework and Secure Research Service procedures.

Keywords

SRS, research, data protection, secure data, confidentiality

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1. Background

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The Office for National Statistics (ONS) Secure Research Service (SRS) is a trusted research environment (TRE). We give accredited or approved researchers secure access to a wealth of de-identified, unpublished data to work on research projects for the public good.

We have been [accredited as a Digital Economy Act \(DEA\) 2017 processor](#) by the UK Statistics Authority for the preparation and provision of data for research purposes.

For safe use of secure data, the SRS uses the Five Safes Framework. This is a set of principles adopted by a range of TREs, which researchers and their organisations must adhere to. These protocols provide assurance for data owners. The Five Safes are:

- Safe People: researchers have appropriate experience, training, motivation and authorisation to access and use data appropriately
- Safe Projects: data that are only used for valuable, ethical research that delivers clear public benefits
- Safe Settings: settings in which access to data is only possible using our secure technology systems
- Safe Data: data are treated to protect confidentiality and disclosure concerns
- Safe Outputs: outputs are screened to ensure they are not disclosive and are in scope of project and data owner permissions

These pages focus on how researcher-requested outputs, ingests and transfers are practically implemented within the Five Safes Framework and SRS's procedures.

- An output is any material a researcher wants to remove from their SRS project to outside of the SRS platform.
- An ingest is any material a researcher wants to add to their SRS project from outside of the SRS platform.
- A transfer is any material a researcher wants to copy from one SRS project to another.

2. Useful information

Who and what projects can make a request?

Only those named as a "Researcher" on a "live" project (that is, has started and not yet ended) are permitted to make output, ingest and transfer requests. A project which closes will have any open requests immediately closed without further action.

All projects can request ingests and transfers. Only "full projects" can request outputs – exploratory projects cannot.

All projects in the Secure Research Service (SRS) are set up with clear aims and objectives. Before preparing any work in the SRS, and before submitting any requests, researchers should thoroughly check their project permissions (original application and any completed addendum) to ensure that they are operating in a permitted way. If permissions are not in place, then researchers can request an addendum through their project page on the Researcher Access Service (RAS), or through the [ingest request form](#) (available on the SRS website).

How long will my request take?

All requests are actioned in order of receipt and SRS aims to turn around requests as quickly as possible. However, this is dependent on staff availability and the number, complexity and quality of current requests. Statistical safety is paramount and will never be compromised for speedier completion of requests regardless of requesting researcher or reason. We recommend that researchers submit requests as far in advance of requirement as possible and remember that sometimes it may take several working days before any request is first examined.

Researchers are not normally informed of the progress requests but may contact statistical.support@ons.gov.uk to check whether a request has been received if they are concerned.

The SRS will support researchers and their projects to the best of its ability, but all requests are processed at the discretion of SRS and relevant data owners – there is no guarantee that any given request can be completed even with precedent.

What file types can be submitted for output, ingest, or transfer

Researchers can request any file type for ingest, output or transfer that SRS officers are able to check (that is, software is available to enable complete checking of contents) but does not guarantee processing of all available file types. Note that the following file types cannot be

requested for output, ingest and transfer because the SRS does not have the capacity to fully check them:

- Shapefiles (.shp, .shx, .dbf, .prj, .sbn, .sbx, .fbn, .fbx, .ain, .aih, .ixs, .mxs, .atx, .shp.xml, .cpg, .qix)
- JavaScript Object Notation files (.json)
- Markdown files (html, .markdown, .md, .markdn, .mdown, .rmd, .rnw)
- R project files (.rproj)
- R presentation files (.rpres)
- R data files (.rdata, .rda, .rds)

Code files

Code files do not normally require any special permission for output, ingest or transfer but any code files in a request must:

- be clearly annotated with comments or have accompanying commentary to describe the actions and intended outcome
- not contain any data, identifiers, results, or discussion
- not contain any commands that attempt to identify or search for individual entities
- not contain any comments that could lead to re-identification
- not contain any SRS server names (for example, \\[server_name]\Ready for checking); researchers can either remove the [server_name] element or use a proxy (for example, \\P\Ready for checking)

If researchers have any code that might be useful to other SRS researchers they can submit this to the SRS Code Library where it will be freely available to all SRS researchers. Enquiries should be forwarded to SRS.codesharing@ons.gov.uk. Submissions can be made as part of an output request or by contacting this email address.

Direct identifiers and indirect identifiers in the SRS

Direct identifiers (information that allows identification of an individual) are not allowed in the SRS under any circumstances. You should not attempt to ingest any direct identifiers to the SRS and should notify the SRS (statistical.support@ons.gov.uk) immediately if you discover any direct identifiers in the SRS.

Examples of direct identifiers:

- person or company name or id
- person or company street address
- personal or company email address
- personal or company email phone number
- National Insurance number (NINo)
- NHS number
- passport number
- any reference to a person or organisation that can be traced using publicly available data
- grid location of the property
- latitude, longitude, eastings, northings, or grid location or of property

- one of the two parts of a grid
- Unique Property Reference Number (UPRN)
- Company Registration Number (CRN)
- Unique Pupil Number (UPN)
- Value Added Tax registration number or HM Revenue and Customs reference for companies

Indirect identifiers (information allows identification on an individual when combined with other information) are generally not permitted in the SRS but are sometime permissible in a project with special permission. You should not attempt to ingest any indirect identifiers without having such permission in place.

Examples of indirect identifiers:

- postcode
- date of birth or death
- ONS internal business identifiers (for example, RUREF, LUREF, ENTREF)
- school or academy names
- school or academy IDs (for example, URN, UKPRN, LAESTAB)
- Unique Reference Number (URN, educational establishment)

Artificial intelligence and machine learning in the SRS

The output of artificial intelligence (AI, a system that mimics human behaviour and decision making) or machine learning (ML, a type of AI involving models trained on datasets) models and model outputs are not permitted in the SRS. This is because AI or ML models and model outputs can “leak” information through attacks, and the SRS cannot guarantee the application of technologies or techniques to overcome this.

If researchers wish to carry out AI or ML as part of the SRS project, then it is strongly recommended that they contact the “SRS Statistical Support and Project Feasibility team” to discuss options and likely limitations at statistical.support@ons.gov.uk

SRS project folders – structure, organisation, audits

Project folders inside the SRS have a standard structure of four folders:

- the “Input” folder is where approved SRS core data and files from completed ingests are added by SRS officers
- the “Working” folder is where researchers save their working files as the project progresses
- the “Ready for Checking” folder is where researcher place files prior to requesting their output from the SRS
- the “Output” folder is where SRS officers work files requested for output; this folder is “read-only” for researchers

It is important for researchers to maintain logical naming and organisation of created files and folders in their SRS project. This is particularly important in the “Ready for checking” folder where researchers put files for clearance. This is covered in more detail in Preparing files of output in Section 4: Output requests.

The SRS may conduct audits of SRS projects as part of its Digital Economy Act commitment to monitoring ongoing research, or for security and administrative purposes. As part of these audits, SRS officers may contact you with queries or instructions, but you should never release SRS log-in information or non-publicly available information on SRS data itself in answer.

Contact the SRS

SRS teams are large and dynamic so it is likely that different SRS officers will action each request. Researchers should not assume that SRS officers have any prior knowledge of a particular project or data – all information relevant to a request should be provided by the researcher at request or query submission.

Most SRS teams are available Monday to Friday from 9am until 5pm.

- For outputs requests and queries: email statistical.support@ons.gov.uk
- For ingests, transfers and all other SRS requests and queries: email srs.customer.support@ons.gov.uk, or phone +44 1329 447871, or go to the [SRS website](#)

Incidents and breaches

If you discover or suspect that material or the SRS may have been used in breach of its terms of use, then please contact SRS Statistical Support at statistical.support@ons.gov.uk immediately so that they can investigate and attempt to mitigate impact. Incidents and breaches are investigated with high priority and should be resolved as quickly as possible.

3. Output requests

An output is any material a researcher wants to remove from their Secure Research Service (SRS) project to outside of the SRS platform.

There are strict procedures and rules that must be followed for output requests because output files are derived from secure data in the SRS. Specialist SRS officers process output requests and will issue a “clearance” to approved requests. Clearance provides permissions and restrictions for handling the information in the cleared files. Each approved output is sent to researchers accompanied by information relevant to the handling of output that should be carefully read.

Removing any information from the SRS without clearance (including note taking from the SRS or from memory about work in the SRS) may constitute a criminal offence so it is vital that researchers follow SRS procedures and instructions.

SRS output clearance

From 29 May 2024, all approved outputs from the SRS will receive “SRS output clearance”. SRS output clearance is intended for project development, or intermediate or final research output of the project. Files should not be submitted for output if they are not for the advancement of the SRS project from which they are derived. Any material with SRS output clearance can be kept indefinitely and shared or used freely in-line with project permissions and scope from which they are derived (barring any specific restrictions applied to your project and its datasets).

Output content can range from small (for example, single tables) to large (for example, manuscripts) elements of research output. Because of this freedom the SRS requires that all file

contents are sufficiently formatted and accompanied by sufficient explanation or context (for example, data and variables used, methodology, what each element of the output shows) – greater and higher quality detail in outputs will speed up the SRS’s processing of requests and reduce the likelihood that SRS needs to query requests with researchers.

Researchers are responsible for appropriate use of their outputs and should ensure that combinations of different outputs do not become disclosive and remain compliant with the permissions for the project from which they were derived.

Regarding legacy clearances

Prior to 29 May 2024 the SRS operated a three-level output clearance model:

- pre-publication clearance
- publication clearance
- code clearance

Any restrictions applied to existing cleared outputs (noted at point of release to researchers) at those levels remain in place. SRS output clearance can be requested for files already cleared under pre-publication by making a new request. A separate guidance document (Instructions and guidance for legacy output clearances) for these clearance types is available in the SRS (Libraries / SRS and SDC guidance) and on the SRS website.

Existing cleared outputs can be submitted for clearance under “SRS output clearance” using the instructions outlined on these pages. Material requiring SRS output clearance that is already outside of the SRS (for example, a development of a pre-publication clearance) can be attached to the email with a completed request form. Any new requests will be processed independently of other requests and according to current standards and procedures.

Output process flow

- Step 1: researcher prepares files and submits output request to SRS
- Step 2: SRS creates a ticket for the request
- Step 3: SRS officers check output
- if at Step 3 the output fails the SRS officers' check, go to:
- Step 4a: SRS emails researcher with guidance on revisions
- Step 5a: researcher revises files then replies to SRS
- then reverts to Step 3: SRS officers check output
- if at Step 3 the output passes the SRS officers' check, go to:
- Step 4: is a data owner consultation required?
- if yes:
- Step 5: data owner checks output
- if the output fails Step 5 go to:
- Step 6a: SRS emails researcher with guidance on revisions
- Step 7a: researcher revises files then replies to SRS
- then reverts to Step 3: SRS officers check output
- if the output passes Step 5 go to:
- Step 6: SRS emails researcher with output and disclaimer (final step)
- if at Step 4 no data owner consultation is required, go straight to Step 6

Preparing files for output

In preparing files for output, researchers should ensure that all requirements discussed in Section 2: Useful information are met, and apply Statistical Disclosure Control (SDC) principles. Note that researchers must:

- check compliance with project permissions and scope; only elements necessary for the completion of the project should be cleared
- apply appropriate statistical disclosure control (SDC) using the principles and techniques from safe researcher training (SRT), guidance documents in the SRS (Libraries / SRS and SDC guidance), and other relevant materials including the [SDC Handbook](#); also see our guidance on [Getting your research output approved](#)

- ensure that all underlying, unweighted counts used related to the content are clearly and unambiguously provided; by default, underlying counts have a minimum threshold of 10 but this may be lower or higher for some projects and datasets; a threshold guidance document is available in the SRS
- ensure that there are no hidden files or hidden file content (for example, rows or columns in Excel documents)
- prepare any supplementary material that will aid SRS Officers checking the output; this should be in the same folder as the files for output but labelled to indicate that it is not for output

Exemption to SDC rules may be considered in exceptional cases where researchers can demonstrate necessity to research for public benefit as new knowledge, and that the content is safe and non-disclosive. It is the researcher's responsibility to seek approval from data owners for an SDC exemption prior to requesting outputs for clearance though it is recommended to contact the SRS first at statistical.support@ons.gov.uk.

Once files are prepared, researchers should place them into a single folder in the project's "Ready for Checking". The folder for output should be given a logical meaningful name rather than a generic one, for example, "2024_01_16_EnergyUseModel_v1" rather than "Output1".

The researcher should then add a completed copy of the output request form to the folder (a blank copy is provided in the SRS project folder) and lastly email statistical.support@ons.gov.uk to submit the request. The email title should be formatted "[date] Output request for project [number]" where [date] is the request date and [number] is the project number (for example, "16/01/24 Output request for Project 1234567"). The email body should note project number, name of folder for output, and any useful context or considerations that may assist SRS officers.

For requests for output clearance of files outside of the SRS (necessary for some material cleared under the three-level output clearance model prior to 20 May 2024) the same procedures and principles apply but the files should be attached to the email with the completed copy of the [output request form](#) (a blank copy is provided on the SRS website).

After a researcher has submitted their prepared files to the SRS for output, two specialist SRS officers will independently check the output.

Researchers should not edit, add to, or remove from the output folder once the request has been submitted. This is because SRS officers work on copies of submitted folders so changes will not be apparent to them.

SRS processing of output request

On receipt of an output request, the SRS assign it a "ticket" to record the detail or progress of the request in a permanent record with a unique STATS-ID (for example, STATS12345). A copy of the requested output folder is then moved to the output folder (this is read-only for researchers) for checking later.

Note that email titles from the SRS will contain the STATS-ID – titles are used for SRS admin so researchers should not edit them or otherwise risk delay or disruption to their requests.

All tickets are actioned in order of receipt. Once a ticket reaches the front of the queue, two SRS officers then independently check that the submitted files are not disclosive and comply with permissions of the requesting project. If anything is unclear, or if the officers find an issue with the output, they will contact the researcher with questions or guidance on how to revise the output to meet requirements.

The request will only progress when SRS officers have no unresolved questions or issues with the output.

Data owner checks on outputs

Some data owners (DOs) specify that they want review outputs cleared from the SRS when these are derived from their data. The review is either:

- “for information”: the SRS will blind copy the relevant DOs into the email to the researcher, which has the cleared output attached
- “for approval”: the SRS sends the output to the relevant DOs and will only release to the requesting researcher when the DOs approve

Whether outputs are to be reviewed by DOs is noted in a project’s documentation and under the conditions of use sections in the [ONS metadata catalogue](#). DOs can only deny release if there are disclosure or governance concerns.

The request will only progress when DOs have no unresolved questions or issues with the output.

Revisions to outputs

The SRS will contact researchers if they or DOs have questions or issues with the output that need to be resolved. The SRS will provide guidance on how to resolve the issues if these are present. More than one round of revisions may be required depending on the quality of the original output and the revisions. Responsibility for revising outputs is with researchers – neither SRS nor data owners will revise outputs for researchers.

Where issues impede checking progress, a request ticket will be categorised as “blocked” meaning that it cannot be progressed until a researcher has responded. Blocked tickets leave the queue and normally return to the back of the queue when researchers respond.

SRS recommend that researchers create a copy of the original output folder and increase the version number when making requested revisions to outputs (for example, “2024_01_16_EnergyUseModel_v1” to “2024_01_16_EnergyUseModel_v2”). Once revisions are made, researchers should reply to the SRS’s email which requested them. Note that researchers should not include “uncleared” material in replies to SRS officers.

Releasing the output

Only when all checks are completed, and any issues resolved, will SRS release the output to researchers. Outputs will be sent as an email attachment to the requesting researcher with the email body noting information relevant to the handling of output that should be carefully read. The SRS then close and archive the request ticket.

Onward use of the output

Anything that is created inside the SRS must go through the standard output process to leave the SRS. This includes information that is memorised, for example, researchers who cleared outputs to create a presentation should not answer questions about that presentation unless the information answers have also been cleared (this does not need to be verbatim).

Anything that has been cleared should only be used in-line with the project from which it was derived, but can be re-used for different purposes under that criteria (for example, changing from presentation to written report) without requiring further clearance from the SRS.

The risk of secondary disclosure (discussed in your safe researcher training (SRT)) increases as outputs are combined with each or other material. As responsible users of data, researchers should take steps to minimise risk of secondary disclosure and should consider submitting new documents for clearance if they are in any doubt.

Some data owners stipulate that data reproduction and/or secondary analysis is not permitted either at all or unless certain conditions are met. Researchers are responsible for appropriate use of data and publications, and should carefully study their project documents for approvals and stipulations.

It is the researcher's responsibility to send all final publications from projects to the SRS's Impact team (IDS.impact@ons.gov.uk). The email should note the project number and title, have any publications or links, and note actual or expected publication. It is also the researcher's responsibility to contact the Impact team if they are no longer planning any final publications from projects. The Impact team are interested in anything related to project impact including:

- journal and book chapters
- public facing or internal reports
- working papers
- published presentations
- academic dissertations and theses
- any media coverage
- case studies

4. Ingest and transfer requests

An ingest is any material a researcher wants to add to their Secure Research Service (SRS) project from outside of the SRS platform.

A transfer is any material a researcher wants to copy from one SRS project to another.

What can be requested?

Some file types and data (see Section 2: Useful information) cannot be requested for ingest or transfer, and all information in any files requested for ingest or transfer must be approved for use in project documentation (either original application or a completed addendum). Researchers should thoroughly check all files and project permissions before making a request. If permissions are not in place, then researchers can request an addendum via the ingest request form (available on the SRS website) or via their project page on the Researcher Access Service (RAS).

The SRS operates a data minimisation principle meaning that only data necessary for achieving the documented goals are permitted in projects. Any superfluous files, data or variables, or other material will be rejected.

How to request an ingest or transfer

Before requesting an ingest or transfer, researchers must check that they have the necessary permissions to use the files (including all variables) and ensure that they have removed all non-permitted or superfluous information.

Instructions for submitting an ingest or transfer request are contained in the [respective request forms available from the SRS website](#).

A [video guide to completing the ingest request form](#) is available.