

# **Registers of Scotland Quality Assurance of Administrative Data: Country of origin report**

## **Contents**

1. Introduction .....	1
2. Data sources .....	1
3. Overview of publication processes .....	2
4. Assessment of RoS Data using the Administrative Data QA Toolkit.....	2
4.1 Practice area 1: operational context and administrative data collection .....	3
4.2 Practice area 2: communication with data supply partners .....	5
4.3 Practice area 3: QA principles, standards and checks applied by data suppliers .....	7
4.4 Practice area 4: Producers QA Investigations and documentation .....	8
5. User engagement .....	9

---

## **1. Introduction**

This Quality Assurance of Administrative Data document relates to administrative data used in the Registers of Scotland (RoS) [Country of origin](#) report (the “location of owner” report). The report provides statistics on the country of origin of all property owners and tenants in Scotland as at 31 December of each year, based on the address provided for them when their interest in the property was registered.

## **2. Data sources**

The following table shows the data sources, their risk of quality concerns and public interest profile. Further information about these classifications are available in the [UK Statistics Authority’s Quality Assurance of Administrative Data guidance](#).

Data Type	Administrative Source	Data Quality Concern	Public Interest Profile	Matrix Classification
Land register data	Registers of Scotland	Medium	Medium	A2
Map data <sup>1</sup>	Ordnance Survey	Medium	Medium	A2

The data quality concern attached to the RoS land register data is considered to be a medium concern. This is because the data is extracted from applications for registration in the Land Register. The data is submitted by standard land register application forms, deeds and accompanying plans (if required). The risk of inaccurate data being submitted, and of inaccuracies being created by errors in the land registration process, is inherent but is mitigated by the following: checks done by solicitors; by pre-application checks and reports being provided by RoS prior to solicitors submitting applications; by data being taken by RoS

---

<sup>1</sup> Separate map data is not included in the RoS administrative data but is used to support the identification of address locations. The data quality concern and public interest profile relates to the RoS process of producing the location of owner report and not to the OS map data itself. Classifying it as a medium concern relates to our use of the data within our report processes and is not a reflection of the originating OS data ([MasterMap®](#) Topography Layer and [AddressBase®Premium](#)).

directly from digital applications, removing the need to re-capture key data and simplifying and streamlining the data entry process; by RoS registration officers conducting registration checks; by the RoS Quality Team undertaking quality checks; and by the RoS Land & Property Data Team undertaking quality assurance on the data.

In relation to the map data, the quality concern is considered to be medium. The risk of quality concerns within the Ordnance Survey data itself is low because there is clear agreement about what data is provided via the [Public Sector Geospatial Agreement](#) (PSGA), when and how it will be updated, and the quality of the data meets our statistical needs. The Ordnance Survey data products are used as a tool to support the identification of address locations. The address provided for owners/tenants when their interest in the property was registered is used to identify those addresses that are located within Scotland, England and Wales. It is our internal processes rather than the map data itself that can cause inaccuracies or omissions, but again these are mitigated through quality checks, data updates and the RoS Land & Property Data Team undertaking quality assurance on the data.

The production and publication of house price data, into which the data feeds, can be considered of medium public interest profile. This is because there is wider user and media interest in the results that are published, with moderate economic or political sensitivity.

Further information to justify these classifications is provided in section 4 below.

### **3. Overview of publication processes**

The location of owner report was first published in March 2018 with data as at 31<sup>st</sup> December 2017. The report is published on an annual basis with data as at the 31<sup>st</sup> of December of each year.

The statistics are presented as a snapshot of the Land Register as at 31 December 2022 without comparisons with previous years. Annual comparisons in terms of year-on-year changes in the statistics are not advised as changes may reflect a range of factors<sup>2</sup>, including data quality improvements.

Pre-release access follows the protocols set out by Scottish Government, with only those involved in compiling the data, quality assurance, creating and circulating the briefing document, publishing the release, and named on the pre-release access list having access to the data prior to release. A briefing document for the location of owner report is circulated to Ministers one week prior to release.

The report is published annually in March via the RoS website, accompanied by a media release that can also be accessed via the [location of owner](#) webpage.

### **4. Assessment of RoS Data using the Administrative Data QA Toolkit**

RoS has undertaken a review of the administrative data used to create our location of owner report using the [Quality Assurance Toolkit](#). The following sections provide information and evidence to support this review, including links to supporting documentation.

Within RoS, the Land & Property Data Team is responsible for gathering the administrative data, applying many of the quality assurance processes, as outlined in sections 4.3 and 4.4 below.

---

<sup>2</sup> These factors include the Land Register being a live database, with changes occurring between annual snapshots, as well as the steady progression of completing the Land Register (registering titles for the first time in the Land Register) which means that titles are being added to the base data from the Sasines Register

In the majority of cases, as shown below, the evidence meets the A2: Enhanced assurance category in regard to the RoS Land & Property Data Team’s administrative dataset and quality assurance processes that feed into the location of owner report.

Table 1: Summary of practice areas and their assessment ratings

Practice areas	Assessment rating
1: Operational context and administrative data collection	A2: Enhanced assurance
2: communication with data supply partners	A2: Enhanced assurance
3: QA principles, standards and checks applied by data suppliers	A2: Enhanced assurance
4: Producers QA Investigations and documentation	A2: Enhanced assurance

#### 4.1 Practice area 1: operational context and administrative data collection

RoS collects administrative data in the process of fulfilling the Keeper of the Registers of Scotland’s (the Keeper) statutory duties to manage, control and maintain the various public registers under RoS’ remit. The main purpose is to populate the Land Register, documenting and protecting the legal rights of the owner/tenant/third parties. It is used to maintain an open and public property register clearly showing the details for each title registered within and its corresponding cadastral map. The information registered in the Land Register is covered by the Keeper’s warranty, which means that the Keeper may be liable to pay compensation for any inaccuracies in the register that are subsequently rectified.

Both the Land Registration (Scotland) Act 2012 – which superseded the Land Registration Act (Scotland) 1979 on 8 December 2014 – and the forthcoming Land Reform (Scotland) Bill impose statutory duties on the Keeper which govern the role RoS holds within the Scottish legal and economic framework. One of the largest changes to land registration legislation in the Land Registration (Scotland) Act 2012 was to put the main responsibility of the accuracy of data submitted to RoS within the remit of the submitting agent (usually the solicitor acting on behalf of the purchaser) rather than the Keeper. This provides increased reliability on the quality of data we can extract from the documents submitted for registration in the Land Register since these agents have a greater responsibility to ensure the integrity of the register.

In the supporting documentation referred to below, RoS presents a data collection map showing the process in which RoS collects data from our customers through each stage of the registration process. Land Register applications are now all submitted digitally, and the majority of applications are created automatically from the digital submission. This minimises a large degree of risk in relation to data input errors.

Further steps are taken to minimise the risk of inaccuracies on these forms by sending the submitting agent a link to view the final title sheet and cadastral plan upon completion of the registration process. This is to enable the agent to check and verify everything has been registered correctly. If there are any inaccuracies highlighted to RoS, the solicitor has a duty to rectify the Land Register to ensure the integrity of the register under the Land Registration Act (Scotland) 2012.

[Annex B](#) of the supporting documentation below lists the fields that are extracted from the land registration data.

Additional fields are also added to this data based on either the address of the owner/tenant or the address of the property being purchased as follows:

- Country: Scotland, England, Wales, Northern Ireland, or the overseas country
- Person type:
  - for the UK owners/tenants, the classifications are Person, Commercial, Other or Mixed
  - for the overseas owners/tenants, the classifications are:
    - Individual/natural person
    - Trustees, limited partnerships, misc bodies and corporations
    - Limited companies
    - Joint ownership with both Individual/natural person and Trustees, miscellaneous bodies and corporations
    - Joint ownership with both Individual/natural person and Limited Companies
    - Limited company in joint ownership with trustees, limited partnership and miscellaneous bodies
- Urban rural classification: based on Scottish Government urban rural classification 2020 <https://www.gov.scot/publications/scottish-government-urbanrural-classification-2020/>

Ordnance Survey [MasterMap®](#) Topography Layer (MasterMap) and [AddressBase®Premium](#) (AddressBase)<sup>3</sup> are used to support our land registration activities within RoS. Ordnance Survey are currently the only map provider in the UK that can deliver the quality and coverage needed for our land registration processes in Scotland. As noted in section 2 above, the provision of this map data is governed by the [Public Sector Geospatial Agreement](#) (PGSA). In relation to the RoS administrative data used in our location of owner report, these products are used, as noted above, as a tool to support the identification of address locations in Scotland, England and Wales. Information about the products provided to RoS is provided below for completeness, therefore, but map data is not included in the RoS administrative data.

OS MasterMap is the definitive source of highly detailed geographic data of Great Britain. Further information about the Topography Layer of this product, what it contains, and how it is created and updated is contained in the Ordnance Survey OS MasterMap [Topography Layer support document](#). The polygons within this Topographic Layer are used to produce the cadastral map, which shows the registered rights, title and interests in land for Scotland. As a result, we can infer spatial relationships between the cadastral map and other geographies (e.g. postcode, local authority, urban-rural classification).

AddressBase is Ordnance Survey's addressing product range. It matches Royal Mail Postal Address File (PAF) records to local authority address file records and the AddressBase Premium product provides the most comprehensive and accurate geographic dataset of 40 million addresses, properties and land areas where services are provided. The information for AddressBase comes predominantly from local authorities. There are 32 local authorities in Scotland, with responsibility for functions such as Planning, Building Standards and Street Naming and Numbering, which are the foundations for all address intelligence. The local authority data feeds on a continuous basis into the One Scotland Gazetteer, managed by the Improvement Service, which in turn is shared with the National Land and Property Gazetteer, managed by GeoPlace. The source data is collated, verified and quality assured by GeoPlace. The National Address Gazetteer infrastructure is the single source from which

---

<sup>3</sup> Click on the links to find out more about [MasterMap](#) and [AddressBase](#) products.

AddressBase products are created and made available by Ordnance Survey. See the Ordnance Survey [specification](#) and [Product Guide](#) for more information about AddressBase.

Supporting documentation (only links have been provided to documents that are available online):

- 1) [Annex A](#) - Data Collection Process Map: an outline of the land registration process through which our administrative data is collected
- 2) [Annex B](#) - Data Extraction and Fields: details of the fields that the Land & Property Data Team extracts from the administrative data for our statistical purposes
- 3) [Annex C](#) - Field Classifications and Explanations: a breakdown of the abbreviations and land classifications used in our dataset.

## **Assessment Rating A2: Enhanced assurance**

### **4.2 Practice area 2: communication with data supply partners**

RoS presently has departmental risk registers and business continuity plans in place to safeguard the collection and supply of administrative data. All data at RoS is backed up overnight using both cloud-based and external site servers to ensure the continuity of service. Each department is responsible for their own risk registers and business continuity plans to ensure expertise is utilised if disruptions occur. This provides confidence in the internal data supply that measures are in place to resolve any disruptions to supply quickly and efficiently.

Within RoS, there are a number of teams which encompass registration policy and practice, post-registration enquiries and amendments, and data improvement and quality. These teams liaise with both internal and external stakeholders to correct errors, analyse data, provide feedback and improve registration practice, as well as examining historic data issues and seeking to correct and resolve these. Although there are no formal written agreements in place in respect of data quality updates since we are internal departments, we are satisfied that our current communication levels meet our requirements for receiving updates to data quality, process changes and feeding back data amendments (please see [Annex D](#) for further details of the data quality assurance that is conducted on the location of owner data).

With regard to the registration processes, through which RoS administrative data is gathered, there is communication throughout with the agents/solicitors that have submitted the applications to RoS for registration. This communication includes pre-application reports and services (e.g. the [pre-registration reports service](#) – services like this help to improve the quality of applications subsequently received by RoS), application receipts, application rejections (land register applications need to meet certain criteria in order to be accepted for registration and will be rejected if these criteria are not met – the submitting agent will then resolve any issues and resubmit the application), discussion of issues during the registration process, and notification following application completion. On completion of the registration process, the submitting agent will receive a link to the registered title to allow them to conduct a check on the completed registration. Any issues at this stage will be communicated to the RoS rectification team.

Communication with key RoS stakeholders across the range of our products and services is robust and includes the allocation of account managers to key customer sectors, regular newsletters, Law Journal articles, attendance at relevant events and conferences, customer consultations (e.g. customer surveys, mystery shopping exercises and focus groups), and

the establishment of a user experience panel to test the concepts RoS is developing to enhance services.

In relation to external communication around the Ordnance Survey map data<sup>4</sup>, the RoS Mapbase Maintenance and GIS teams continue to receive a regular weekly update<sup>5</sup> from Ordnance Survey in regard to the OS MasterMap Topography Layer and six-weekly update with regards to AddressBase Premium. This has been in place since the One Scotland Mapping Agreement (OSMA) data licence was established between Ordnance Survey and Scottish Government to provide this data to all public sector organisations in Scotland and is now covered by the PSGA, although the provision of the weekly update of the OS MasterMap Topography layer predates OSMA. This update supplies change data, e.g. the addition of new build property footprints and addresses, which supports the land registration process and in turn updates the data that is used as a tool to support the identification of address locations in the location of owner report.

RoS is in regular weekly contact with Ordnance Survey with regard to the map products supplied and the weekly change data. This contact includes flagging up mapping issues to the OS data hub error reporting tool, for example advising them corrections might be required such as when the map doesn't match associated aerial imagery. Any issues flagged in this way are usually resolved within four weeks and are then included within the regular weekly updates. RoS can also request Ordnance Survey to carry out site surveys through a P24 request. This is a payable service through which RoS can ask Ordnance Survey to provide updated data in specific areas to support the land registration process. The SLA for this service is 15 working days and any updates are again included within the regular weekly feed.

For the administrative data used to create our statistics reports, this communication provides us with regular updates of building and address data that is incorporated into our GIS database every quarter. This data is then used as a basis to identify the address locations of owner/tenant addresses in Scotland, England and Wales. The map data provided by Ordnance Survey is only used as an input, therefore, to support this identification. The map data already provided and revised via the update meets our statistical needs and so, in relation to the location of owner report, there is minimal need for additional communication with Ordnance Survey beyond the provision of the regular updates.

In certain instances where it has not been possible to identify an owner/tenant address using the Ordnance Survey products, this can be due to the quality of the data provided in the application for registration or due to our own internal processes, e.g. the address is incomplete, miss-spelled or is not located in Great Britain, rather than data not being available from OS MasterMap or AddressBase.

## **Assessment Rating A2: Enhanced assurance**

---

<sup>4</sup> While Ordnance Survey (OS) map data is used as the base layer for RoS land registration mapping activities, for the purposes of this QAAD, the communication referred to only relates to the provision of the map data for identification of owner/tenant addresses. There is much wider communication relating to the overall RoS land registration requirements, in addition to the updates referred to, including regular meetings and liaison with OS representatives. RoS also has representation on the Scottish Geospatial Management Board, which represents Scottish Government in relation to the PSGA.

<sup>5</sup> Under the PSGA, the OS MasterMap Topography Layer has a 6-weekly update as standard, but RoS has agreed a more frequent update with Ordnance Survey.

### 4.3 Practice area 3: QA principles, standards and checks applied by data suppliers

Since RoS is the primary data supplier, we present our full QA procedure and checks under the practice area 4 section in paragraph 4.4 below.

Our service standards and strategic objectives can be found in our annual [corporate plan](#). One of RoS' strategic objectives is to 'Deliver more benefits to Scotland by providing innovative and accessible land and property data'. Under this objective there is commitment to continuously improve the quality of our data, indicating that the quality of the data held within our registers is one of RoS' core priorities. Our performance against our service standards and targets, including the percentage of registrations requiring corrective action over a 12 month period, is audited within our annual reports<sup>6</sup>, and is regularly updated on our [website](#). RoS has also received the customer service excellence award. This is the national standard for excellence in customer service. It drives improvement and recognises high quality public service.

The Quality Team conducts internal quality audits, spot-checking applications on a regular weekly basis. They carry out both Legal and Plans checks on the applications registered, taking a random selection of casework and following data point checks on the data fields to ensure they accurately reflect the deed and application form submitted. The majority of quality checks completed are done pre-dispatch, with inconsistencies returned to the plans or legal settler who processed the original casework to allow them to rectify the error. These quality checks do not include checking the addresses of the owners/tenants.

Data queries from our online service, ScotLIS, are also handled by relevant teams within RoS. These queries come from the various stakeholders who use this RoS service. Queries and other feedback on the data held within Registers Direct are sent in on a daily basis and investigated on a case by case basis with the outcome communicated back to stakeholders. Feedback reports are produced and made available to all Intake team leaders and managers in order to highlight training and development issues.

The post-registration enquiries and amendments team are responsible for completing applications to rectify inaccuracies on registered titles. The Land & Property Data Team receives a regular report of all rectifications completed by this team and will incorporate any relevant changes into the administrative data used to create our statistics.

The OS MasterMap and AddressBase products that are used as a basis to identify the address locations of owner/tenant addresses in Scotland, England and Wales are subject to Ordnance Survey QA procedures. The specifications for these products are available on the Ordnance Survey website and links to these specifications have been provided in section 4.1 above.

OS apply relevant Standards to their processes, products and services. With particular regards to data quality, they apply the principles and methodologies of:

- ISO19157: Geographic Information – Data quality (2013). [ISO - ISO 19157:2013 - Geographic information — Data quality](#)
- ISO19158: Geographic information - Quality assurance of data supply (2012). [ISO - ISO/TS 19158:2012 - Geographic information — Quality assurance of data supply](#)

---

<sup>6</sup> [https://www.ros.gov.uk/data/assets/pdf\\_file/0018/221157/RoS-ARA-21-2022.pdf](https://www.ros.gov.uk/data/assets/pdf_file/0018/221157/RoS-ARA-21-2022.pdf). In 2021-22, the target was to complete an average of 93% of applicable registration cases with no quality fails or errors. 94.8% of applications met this target.

- ISO2859: Sampling procedures for inspection by attributes (series). Link to part 1 (1999) provided here [ISO - ISO 2859-1:1999 - Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit \(AQL\) for lot-by-lot inspection](#)
- ISO 19011: Guidelines for auditing management systems (2018). [ISO - ISO 19011:2018 - Guidelines for auditing management systems](#)

AddressBase is produced in accordance with the National Land and Property Gazetteer [Data Entry Conventions and Best Practice for Addresses](#) and they are in compliance with the national standard for the representation of address information – [BS7666](#) Parts 1 and 2.

For the RoS location of owner report, the only limitations of the map data used are in relation to [any limitations???] As previously noted, however, the Ordnance Survey data is the most comprehensive and accurate data available for Scotland and regular updates are provided under the PSGA.

### **Assessment Rating A2: Enhanced assurance**

#### **4.4 Practice area 4: Producers QA Investigations and documentation**

The dataset used in the location of owner report is an extract of registered titles as at 31 December each year, which is then updated on an ongoing basis each year to reflect additions and changes to the data.

The Quality Assurance Process document in [Annex D](#) details the full step-by-step procedure followed by the Land & Property Data Team to extract and fully quality assure the data. The main checks undertaken as part of this process are:

- Address checks – to make sure the owner/tenant address has been allocated to the correct pot: Scotland; England; Wales; Northern Ireland; or outwith UK
- Owner type checks – to make sure that the owner is categorised correctly and specifically to ensure that no personal data is included in the data that will feed into the Country of Origin Company report
- Country name checks – to ensure that naming conventions are applied consistently to the overseas country names
- No duplicate data is included – to ensure that the data is only country in one pot

The main strengths and weaknesses of RoS' Country of origin dataset, which is used in the creation of the [Country of origin](#) report and the [Country of origin company report dataset](#), are highlighted in [Annex E](#). Overall, the quality of data extracted from the Land register is good, but is further enhanced and improved by the quality assurance that is undertaken by the Land & Property Data Team.

The Quality Assurance Process document shows that there is a uniform approach to quality assurance to provide consistency in the standard of data being produced. Regular quality assurance meetings are held within the Land & Property Data Team to garner feedback on processes, discuss improvement features, and develop new procedures to add to or update the quality assurance checks.

[Background, quality and methodology](#) information is included in the location of owner report. This information contains details about the data used in the report, quality issues and the methodology applied to the data.



A compliance check was completed on this publication by the Office for Statistics Regulation in 2022. Overall, their feedback was positive, and you can access their review here. [Read the outcome of this assessment](#).

Supporting documentation:

- 1) [Annex D](#) – Quality Assurance Process: a guide on how the Land & Property Data Team process weekly Land Register extracts.
- 2) [Annex E](#) - Identified list of Dataset Strengths and Weaknesses

## **Assessment Rating A2: Enhanced assurance**

### **5. User engagement**

RoS has dedicated communications and stakeholder engagement teams that are responsible for managing RoS' relationship with all of our customers, and for eliciting customer feedback and gauging customer satisfaction. These teams also manage user events and the circulation of RoS statistics via the RoS website, via media contacts and via social media (Twitter and Facebook). They also manage the RoS [Data Stats Alert Service](#), which allows customers to subscribe to receive updates when the following statistics are updated: the monthly house price index, the quarterly house price statistics, the property market report, the monthly house price statistics and the location of owner report.

RoS has a good relationship with our key users, and engagement with them is ongoing. Regular events are held to actively engage with users in relation to our data provision and publications and gather their comments and queries. The most recent event, in January 2023, was held as an online webinar and included obtaining feedback from users on the location of owner report, specifically relating to area statistics, as well as updating users on the OSR review. The webinar involved the key users of our house price statistics, including the following key sectors:

- Scottish Government (statisticians, policy developers)
- Local authorities
- Assessors
- Estate agents
- Other producers of house price data or property services
- Solicitors
- Media

RoS also engages with the wider statistical community in Scotland via appropriate forums, for example ScotStat, and attendance at relevant events, for example the annual Scottish Official Statistics Conference.