The IRUS-UK Code of Practice (CoP) for recording and reporting usage at the individual item level
(Note: this is a draft, a living document, and will be subject to change throughout the duration of the service)

As at 28th May 2015 V1.0

Abstract

The IRUS-UK CoP provides specifications for the recording and reporting of usage at the individual item level that are based on and are consistent with:

- Release 4 of the COUNTER Code of Practice for e-Resources
- Release 1 of the COUNTER Code of Practice for Articles

The IRUS-UK CoP provides the specifications and tools that will allow UK Institutional Repositories (IRs) to participate in IRUS-UK and thus record and report usage statistics at the individual item level that are credible, compatible and consistent.

N.B. This document should be read in conjunction with the IRUS-UK Service Level Agreement (SLA).
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1 General Information

The IRUS-UK CoP supplements Release 4 of the COUNTER Code of Practice for e-Resources\(^1\) and Release 1 of the COUNTER Code of Practice for Articles\(^2\).

This IRUS-UK CoP has been developed by IRUS-UK in consultation with COUNTER. IRUS-UK is responsible for its ongoing management and implementation.

1.1 Purpose

The purpose of the IRUS-UK CoP is to facilitate the recording, exchange and interpretation of online usage data at the individual item level for participating UK institutional repositories (IRs) by utilising open, international standards and protocols for the provision of usage statistics that are consistent, credible and compatible.

1.2 Scope

The IRUS-UK CoP provides a framework for the recording, exchange and interpretation of online usage statistics pertaining to UK repositories for individual items, regardless of content type.

1.3 Application

IRUS-UK is designed for UK institutional repositories that require reliable online usage statistics at the individual item level.

1.4 Strategy

The IRUS-UK CoP is an open standard that will evolve in response to the demands of the UK repository community. The CoP is kept continually under review and new releases will be published when appropriate; feedback on its scope and application are actively sought from all interested parties.

See Section 9 below.

1.5 Governance and Relationship to COUNTER

The IRUS-UK CoP has been developed for Jisc by IRUS-UK.

The IRUS-UK CoP provides specifications for the recording and reporting of usage at the individual item level that supplement and are consistent with:

- The COUNTER Code of Practice for e-Resources
- The COUNTER Code of Practice for Articles

1.6 Definitions

This CoP utilises definitions of data elements and other terms that are relevant to the recording and reporting of usage at the individual item level and which are consistent with COUNTER definitions.

See Appendix A of Release 1 of the COUNTER Code of Practice for Articles\(^3\).

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\(^1\) [http://www.projectcounter.org/code_practice.html](http://www.projectcounter.org/code_practice.html)

\(^2\) [http://www.projectcounter.org/counterarticles.html](http://www.projectcounter.org/counterarticles.html)

\(^3\) [http://www.projectcounter.org/documents/counterart_App_A.pdf](http://www.projectcounter.org/documents/counterart_App_A.pdf)
1.7 Versions
This CoP will be extended and upgraded as necessary on the basis of input from the communities it serves. Each new version will be made available on the IRUS-UK website; users will be alerted to its availability.

1.8 Auditing and Compliance
An independent annual audit will be required of IRUS-UK’s reports and processes to certify that they are COUNTER-compliant. The auditing process is designed to be simple, straightforward and not to be unduly burdensome or costly to the vendor or service, while providing reassurance to customers of the reliability of the IRUS-UK usage data.

The IRUS-UK protocols are designed to allow repositories to be become COUNTER-compliant through participation in IRUS-UK, which takes responsibility for the collection of raw usage data, the subsequent processing of those raw data into COUNTER statistics, and the supply of those COUNTER statistics back to the source organisations. As a result, only IRUS-UK, itself, needs to be audited. The contributing organisations do not. This will result in a considerable reduction of the costs of achieving COUNTER-compliance for each organisation involved.

See Section 7 below.

1.9 The Role of IRUS-UK
IRUS-UK has four main functions:

- To collect and process usage data at the individual item level from repositories (and potentially other sources) in order to derive consolidated IRUS-UK usage statistics per item
- To provide a central source of validated, consolidated IRUS-UK usage statistics for individual items
- To transmit COUNTER-compliant statistics back to the originating repositories for inclusion in their own services
- Act as an intermediary between UK repositories and other agencies e.g. global clearing house, national shared services, research councils, SCONUL, OpenAIRE.

1.10 Register of IRUS-UK-compliant Organisations
A register of organisations that are compliant with this CoP is maintained by IRUS-UK.

1.11 Making Comments on the CoP
IRUS-UK welcomes comments on this CoP.

See Section 9 below.

2 Definitions of Terms Used
Appendix A of the COUNTER Code of Practice for Articles (see Footnote 3) lists the terms relevant to the IRUS-UK CoP and provides a definition of each term, along with examples where appropriate. In order to be designated compliant with this CoP, organisations must adhere to the definitions provided in that appendix.
3 Protocols

3.1 Protocols for COUNTER-compliant usage statistics

3.1.1 SUSHI
The SUSHI (Standardized Usage Statistics Harvesting Initiative) protocol\(^4\) is designed for the transmission and sharing of COUNTER usage reports.

SUSHI is intended for use by publishers, aggregators and other third-party services - including IRUS-UK - capable of producing their own COUNTER-compliant statistics.

IRUS-UK will make COUNTER-compliant usage reports available via SUSHI.

For guidance on the protocol suitable for the transmission and exchange of raw usage data from participating repositories to IRUS-UK please see section 3.2 below.

Further information on SUSHI is available in Appendix C of Release 4 of the COUNTER Code of Practice for e-Resources\(^5\)

Comprehensive information on SUSHI is available on the NISO/SUSHI website.

3.1.2 IRUS-UK SUSHI Lite API
The IRUS-UK SUSHI Lite API is designed primarily for the transmission and sharing of COUNTER usage statistics with participating repositories and other external services and agencies, though it can also expose other supplementary data available from the system.

3.2 Protocols for Usage Data
The COUNTER Code of Practice for Articles permits the use of two protocols to gather raw usage data: the Tracker protocol and the OAI-PMH protocol.

IRUS-UK has opted to utilise the Tracker Protocol to gather raw usage data from participating repositories.

Patches and add-ons are available for both DSpace version 1.8.2 or newer and EPrints version 3.2 or newer.

IRUS-UK will be responsible for ensuring the maintenance and upgrades of the software patches and add-ons as newer versions of DSpace and EPrints are released.

Guidelines for implementation of the IRUS-UK tracker in Fedora are also available.

3.2.1 Further Information on the Tracker Protocol
Implementation guidelines and further information about the Tracker protocol are available in Appendix D of Release 1 of the COUNTER Code of Practice for Articles\(^6\).

\(^4\) [http://www.niso.org/workrooms/sushi](http://www.niso.org/workrooms/sushi)
\(^5\) [http://www.projectcounter.org/r4/APPC.pdf](http://www.projectcounter.org/r4/APPC.pdf)
\(^6\) [http://www.projectcounter.org/documents/counterart_App_D.pdf](http://www.projectcounter.org/documents/counterart_App_D.pdf)
4 Data

IRUS-UK gathers raw usage data using tracker code plugins and patches and has initially focused on developing tracker functionality for DSpace and EPrints repositories. Patches are available for DSpace (1.8.x, 3.x, 4.1 and 4.2) and plug-ins are available for EPrints (3.2 or greater). The tracker protocol specification\(^7\) is also being applied successfully to Fedora repositories.

IRUS-UK uses a ‘push’ mechanism whereby a notification is sent to the IRUS-UK server, as an OpenURL key-value pair string, every time a file is downloaded from a participating repository.

Data are stored in daily log files, which are usually processed the following day. The data for each item are consolidated into daily statistics and are filtered to remove robots and double clicks\(^8\). These daily statistics are then consolidated into monthly statistics.

After consultation with our Community Advisory Group (CAG) it was agreed that formal data sharing agreements are not deemed necessary.

5 Usage Reports

The IRUS-UK Usage Reports are provided for the collection, consolidation and dissemination of individual item usage data.

5.1 Process for Gathering Individual Item Usage Data

The IRUS-UK usage statistics must be calculated in a way that is consistent with the data processing rules specified in Section 5 of Release 4 of the COUNTER Code of Practice for E-resources and with the COUNTER Code of Practice for Articles.

5.2 Reports

IRUS-UK will be responsible for producing a range of reports in consultation with the user community including Article Reports conforming to the COUNTER Code of Practice for Articles, as well as general Item Reports on behalf of participating repositories.

5.2.1 Content Type

IRUS-UK must be able to record and report usage of any categories of content at the individual item level.

The item types used by participating repositories are mapped to a standard IRUS-UK list of item types as defined in the latest version of the IRUS-UK item type report available on the news page\(^9\) of the IRUS-UK website.


\(^9\) [http://www.irus.mimas.ac.uk/news/](http://www.irus.mimas.ac.uk/news/)
5.2.2 Item Versions
Practices for recording item versions – both for articles, specifically, and for items, more generally – are inconsistent and/or absent within and across repositories. Therefore, this current CoP makes no attempt to address this area.

Version type metadata is included in the RIOXX metadata profile and guidelines\(^{10}\) and will be recorded by repositories as the profile is adopted.

5.3 Report Delivery
Unless specified otherwise, all IRUS-UK reports will conform to the following standards:

- Reports will be provided in the following formats:
  - Microsoft Excel file, or as a CSV or TSV file, or as a file that can be easily imported into Microsoft Excel pivot tables.
  - As XML formatted in accordance with the COUNTER and SUSHI schemas.
- Reports must be readily available

5.4 IRUS-UK Statistics Portal
The main features of the IRUS-UK Statistics Portal are:

5.4.1 Overall summary
An ‘at a glance’ summary of data in IRUS-UK including: number of participating repositories, number of items downloaded from these repositories since they joined, and numbers of downloads (in total, to the end of the previous month, and during the current month). It also shows the latest date for which data is available in IRUS-UK.

5.4.2 Statistics views
Tables of statistics by repository, country, platform, item type and ingest. The latter shows raw data ingested for each repository and the number of downloads excluded as COUNTER robots, IRUS-UK exclusions and double clicks, thus giving the net figure for total downloads reported in IRUS-UK.

5.4.3 Statistics reports
A collection of COUNTER statistics reports including repository reports, item reports, article reports, journal reports, book reports, and theses and dissertations reports.

5.4.4 Metadata views
More detailed views of the data including item type mappings, a DOI summary and an article DOI summary by institutional repository.

5.4.5 Metadata reports
This section will provide more detailed metadata reports, the first one available being a DOI duplicates report.

Descriptions of statistics and reports generated by the system are available on the Help pages of the IRUS-UK website.\(^{11}\) Each of the reports may be viewed in a Web page in the portal or downloaded

\(^{10}\) [http://rioxx.net/guidelines/RIOXX_Metadata_Guidelines_v_3.0.pdf](http://rioxx.net/guidelines/RIOXX_Metadata_Guidelines_v_3.0.pdf)

\(^{11}\) [http://www.irus.mimas.ac.uk/help/](http://www.irus.mimas.ac.uk/help/)
for use locally as a Microsoft Excel file, or as a CSV or TSV file. These reports must also be available via the SUSHI or SUSHI Lite protocols.

6 Participants

In order to join and continue to participate in IRUS-UK, IRs are required to undertake a certain minimum set of activities. It is understood that, for both participants and IRUS-UK, all action should be done on a ‘best efforts’ basis. We will always allow a reasonable time period for any required activity, e.g. tracker or software upgrades, and will always seek to work with IRs to resolve any issues that arise. We will, however, agree a date whereby, if requested changes haven’t been implemented by an individual IR then IRUS-UK will proceed with the corresponding changes at their end in order that all other participating IRs are not adversely affected.

Participation in IRUS-UK may be suspended if for some reason the activity or inactivity of a repository has the potential to preclude IRUS-UK from successfully passing a COUNTER audit and thus may render the statistics of all other participating IRs non-COUNTER-compliant.

Participating IRs are responsible for the following areas:

6.1 Repository setup

1. Provide a test server for configuring for tracker URL etc.
2. Provide details of test and production URLs
3. Maintain a server that is fit for purpose
4. Maintain OAI-PMH
5. Maintain a minimum version of repository software
6. Inform IRUS-UK if they change the IP address of their repository
7. Implement requested actions within a reasonable length of time

6.2 Information about the repository

IRs are requested to provide basic information about their repository, which will enable us to communicate with them effectively and display the appropriate information on the IRUS-UK website. IRUS-UK should be notified of any changes to this information. In addition, we will send an annual reminder email to confirm the information that we hold about a repository. This will cover:

1. Institution and repository names to be displayed on the IRUS-UK website
2. Whether a repository is hosted internally or externally. For internally hosted repositories, whether or not there is a support agreement, e.g. with EPrints Services. For externally hosted repositories, who they are hosted by
3. Version of repository software used
4. Generic repository email address so that we are not dependent on communication with an individual member of staff who may not be contactable
5. Name and details of a technical contact
7 Auditing

An important feature of the COUNTER Code of Practice for Articles is that compliant vendors must be independently audited on a regular basis in order to maintain their listing. This audit is supplementary to the existing COUNTER audit and is designed to validate those aspects of the IRUS-UK data processing and presentation not already covered in the COUNTER audit. These supplementary auditing standards and procedures have been published in Appendix F\textsuperscript{12} of the COUNTER Code of Practice for Articles. As with COUNTER, these audits will be conducted online using the detailed test scripts included in the auditing standards and procedures.

The independent audit is required within six months of the service first achieving a listing on the Register of COUNTER article level compliant vendors and annually thereafter. COUNTER will recognise an IRUS-UK audit carried out by any CPA (Certified Public Accountant) (USA), by any CA (Chartered Accountant) (UK), or by their equivalent in other countries. Alternatively, the audit may be done by another, COUNTER-approved auditor, such as ABC, which is not a CA or a CPA. Information on COUNTER-approved auditors is available from COUNTER.

7.1 The Audit Process (provisional as yet)

1. IRUS-UK will be notified in writing that an audit is required at least three months before the audit is due.

2. IRUS-UK will respond within one month of receiving the reminder by informing COUNTER of the planned timetable for the audit and the name of the organisation that will carry out the audit. Any queries about the audit process may be raised at this time.

3. Irrespective of the auditor selected, the audit must adhere to the requirements and use the tests specified in Appendix F.

4. Upon completion of the audit the auditor is required to send a signed copy of the audit report to the COUNTER office (pshepherd@ProjectCounter.org).

5. Categories of audit result are as follows:

   a. A Pass, in which case no further action is required by IRUS-UK as a result of the audit. In some cases the auditor may add Observations to the audit report (designed to help IRUS-UK improve its reporting), which are outside the scope of the audit itself.

   b. A Qualified Pass, in which the auditor deems IRUS-UK to have passed the audit, but where the auditor raises a Minor Issue requiring further action to maintain a valid listing in the Register. A Minor Issue does not affect the reported figures, but is one which should be resolved within three months of the audit to COUNTER’s satisfaction. An example of a Minor Issue is where a report format does not conform to the IRUS-UK CoP or to the COUNTER Code of Practice for Articles specifications.

\textsuperscript{12} \url{http://www.projectcounter.org/documents/counterart_App_F.pdf}
c. A Fail, where the auditor has identified an issue that must be resolved immediately for the publisher or service to maintain a valid listing in the Register.

8 Compliance

8.1 Timetable and procedure
Release 1 of the IRUS-UK CoP, published in final form in XXXX, will become the only valid version of this CoP from YYYY.

9 Maintenance and Development of the CoP

IRUS-UK has overall responsibility for the development and maintenance of this CoP. Each new release will be made openly available in draft form on the IRUS-UK website for comment before it is finalised. Comments may be sent to the IRUS-UK Team (irus@mimas.ac.uk).

When providing your comments you are requested to adhere to the following guidelines:

- Please be as specific as possible, making sure to note the relevant section and subsection of the CoP.
- Where you are proposing an addition to the CoP, please indicate the preferred section within the current version.