

Usage Factor

a COUNTER standard

The COUNTER Code of Practice for Usage Factors: Release 1

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Abstract

The COUNTER Code of Practice for Usage Factors provides specifications for the recording and reporting of Usage Factors that are consistent with the COUNTER Code of Practice for e-Resources. Only those publishers that are already COUNTER compliant will be in a position to provide valid Usage Factors. This Code of Practice contains the following features:

- A list of Definitions and other terms that are relevant to Usage Factors
- A methodology for the calculation of Usage Factors as a median value, including specifications for the metadata to be recorded, the content types and article versions whose usage may be counted, as well as the Publication Period and Usage Period to be used.
- Specifications for the reporting of the Usage Factor, including the report *Usage Factor: Journals 1 (UFJ1): Median Usage Factor by Journal for All Content (UFJ1a) and Articles Only (UFJ1b)*
- Data processing rules to ensure that Usage Factors are credible, consistent and compatible, including guidance for identifying and dealing with attempts to game the Usage Factor
- Specifications for the independent auditing of Usage Factors
- A description of the role of the Central Registry for Usage Factors in the consolidation of usage data and in the publication of Usage Factors

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Note: Sections 2, 3, 4, and 5 contain the core information required for implementation of Release 1 of the COUNTER Code of Practice for Usage Factors.

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1. General Information

The widespread availability of reliable usage data for online journals has made it feasible to develop usage-based measures of journal impact, value and status. Since 2002 COUNTER (www.projectCounter.org) has provided a standard for the recording and reporting of vendor-generated usage statistics for individual libraries and library consortia.

While the ISI journal Impact Factor (IF), based on citation data, has become generally accepted as a valid measure of the quality of scholarly journals, and is widely used by publishers, authors, funding agencies and librarians as a measure of journal impact and quality, there are misgivings about an over-reliance on Impact Factor alone in this respect. The availability of the majority of significant scholarly journals online, combined with the availability of credible COUNTER-compliant online usage statistics, has made possible a parallel usage-based measure of journal performance. This measure is termed 'Usage Factor: Journals' (UFJ),

The UFJ provides information about the average use of the items in an online journal. Like Impact Factor, it is scale independent. In other words it can be used to compare journals irrespective of their size.

The Usage Factor (UF) metric may, in principle, be applied to any category of online publication, and it is planned to extend the scope of this Code of Practice beyond journals to other products in subsequent Releases. This Release, however, focuses firmly on journals, where the demand for UF is strongest and where the other standards, such as DOI, on which the efficient and accurate calculation of UF depends, are well-established.

1.1 Purpose

The purpose of this Code of Practice is to facilitate the recording and reporting by publishers of credible, consistent and compatible global Usage Factors for online publications hosted by them (and incorporating usage of these publications on other platforms that are capable of delivering COUNTER-compliant usage statistics).

1.2 Scope

This Code of Practice provides a framework for the recording and reporting of Usage Factors for online publications at an international level. In doing so, it covers the following areas: data elements to be measured; definitions of these data elements; specifications for the format in which usage data and associated metadata must be recorded; requirements for data processing; requirements for auditing; requirements for consolidating usage data from different sources; requirements for reporting Usage Factors.

1.3 Application

Usage Factors are designed for publishers, research institutions, researchers, funding agencies, librarians and others who require a reliable usage-based measure of journal impact. The guidelines provided by this Code of Practice will enable these organizations and individuals to compare Usage Factors for different publications, to make more complete, evidence-based evaluations of the impact and value of journals, and to make better-informed publishing or acquisition plans. This Code of Practice also provides publishers with the detailed specifications they need to generate data in a standard format, to compare the relative Usage Factors of different journals, and to learn more about the impact of online journals. COUNTER also provides guidance to others interested in information about online usage-based measures.

1.4 Strategy

The COUNTER Code of Practice for Usage Factors is an open standard that will evolve in response to the demands of the international scholarly publishing community (publishers, librarians, researchers, research institutions or funding agencies). The Code of Practice is kept continually under review; feedback on its scope and application are actively sought from all interested parties. See Section 9 below.

1.5 Governance

The COUNTER Code of Practice for Usage Factors is owned and developed by Counter Online Metrics, a not-for-profit company registered in England. Counter Online Metrics is governed by a Board of Directors. An Executive Committee reports to the Board, and the day-to-day management of Usage Factor is the responsibility of the Usage Factor Project Team, which contains representatives of publishers, researchers and librarians, and reports to the COUNTER Executive Committee.

1.6 Definitions

This Code of Practice provides definitions of data elements and other terms that are relevant to Usage Factor. Every effort has been made to use existing ISO, NISO, CrossRef, etc. definitions where appropriate, and these sources are cited. See Appendix A.

1.7 Versions

This Code of Practice will be extended and upgraded as necessary on the basis of input from the communities it serves. Each new version will be made available as a numbered Release on the COUNTER website; users will be alerted to its availability. Only those organizations compliant with this Code of Practice will be considered to be providing COUNTER-compliant Usage Factors.

1.8 Auditing and Usage Factor compliance

An independent annual audit will be required of each organization's Usage Factor reports to certify that they are compliant with this Code of Practice. The auditing process is designed to be simple, straightforward and not to be unduly burdensome or costly to the organization audited, while providing reassurance on the reliability of the Usage Factors reported. Organizations that are currently COUNTER and COUNTER-Articles compliant, e.g. publishers, will already satisfy many of the requirements of the Usage Factor audit which will, in consequence, be shortened for these organizations. The Usage Factor audit will be required from 2016 onwards and will be carried out at the same time as the annual COUNTER audit.

See Section 5 below and Appendix E for more details.

1.9 Publication of the Usage Factor

COUNTER-compliant Publishers may publish independently audited Usage Factors for their own journals, incorporating usage not only on their own platform (the Publisher Usage Factor), but also incorporating usage on other COUNTER-compliant platforms (the Consolidated Usage Factor). Publishers may also submit these independently audited Usage Factors to COUNTER for inclusion the official Central Register of Usage Factors maintained by COUNTER.

1.10 Relationship to other standards, protocols and codes

This Code of Practice builds on the COUNTER Code of Practice for e-Resources, as well as on a number of other industry initiatives and standards that address publishing-based performance measures. Where appropriate, definitions of data elements and other terms from these sources have been used in this Code of Practice.

1.11 Making comments on the Code of Practice

The COUNTER Executive Committee welcomes comments on the Code of Practice. See Section 9 below.

2. Definitions of terms used

Appendix A lists the terms relevant to this Code of Practice and provides a definition of each term, along with examples where appropriate. In order to be designated compliant with this Code of Practice, publishers must adhere to the definitions provided in Appendix A.

3. Usage Factor Calculation

A pre-condition for publishers to provide valid Usage Factors is compliance with the COUNTER Code of Practice for Articles (www.projectcounter.org); the usage data on which Usage Factors are based must be COUNTER-compliant. Two categories of Usage Factor are allowed: the Publisher Usage Factor and the Consolidated Usage Factor:

- The Publisher Usage Factor for a publication is derived from the usage of full-text items in that publication on the Publisher's COUNTER-compliant platform(s) only
- The Consolidated Usage Factor for a publication is derived from the total usage of full-text items in that publication on a group of COUNTER-compliant platforms. The Consolidated Usage Factor may be calculated and reported by the Publisher or by the Central Registry (see Section 3.3 below).

3.1 Usage Factor: Journal

3.1.1 COUNTER-compliant usage data

The Usage Factor: Journal must be calculated on the basis of COUNTER-compliant usage data, consistent with the data processing rules specified in Section 5 of Release 1 of the COUNTER Code of Practice for Articles.

Publishers should collect the usage data in the format specified in the Excel example report provided in Appendix B, which is Article Report 1 of the Counter Code of Practice for Articles. The following data and metadata must be collected for each article:

- Either Print ISSN **OR** Online ISSN
- Article version, where available
- Article DOI
- Date of First Successful Request
- Monthly count of the number of successful full-text requests for up to a 24 month period from **the** date of First Successful Request

The following metadata are optional, but are desirable:

- Journal Title
- Publisher name
- Platform name

- Article publication date
- Journal DOI
- Article title
- Article type

3.1.2 Content Type

The following categories of journal content *should* be included in the calculation for the UFJ:

- research articles (full articles and short communications)
- review articles
- editorials
- book reviews

The following categories of content, which fall into the general category of standing matter, *should not* be included in the calculation of the UFJ:

- editorial board lists
- subscription information
- permission details

3.1.3 Article Versions

Only usage of the following 5 Article Versions (of the 7 versions defined by the ALPSP/NISO JAV Technical Working Group (<http://www.niso.org/publications/rp/RP-8-2008.pdf>)) may be counted in the calculation of Usage Factor:

- Accepted Manuscript (AM)
- Proof (P)
- Version of Record (VoR)
- Corrected Version of Record (CvOR)
- Enhanced Version of Record (EVoR)

Usage of the following two Article Versions **must not be counted** in the calculation of the Usage Factor:

- Author's Original (AO)
- Submitted Manuscript Under Review (SMUR)

3.1.4 Publication Period

The Publication Period to be applied in the UFJ calculation shall be the two calendar years that are concurrent with the Usage Factor period being reported. Thus, the Usage Factor for a journal for 2009/2010 covers usage of articles published during the calendar years 2009/2010.

3.1.5 Usage Period

The UFJ for 2009/2010 is based on usage during calendar years 2009/2010 of articles first successfully requested online during the calendar years 2009/2010.

3.1.6 UFJ1: the Median value

UFJ1 is the Median Value of a set of ordered full-text article usage data (i.e. the number of successful full-text article requests during the Usage Period) for articles published in a journal during a two calendar year Publication Period. To calculate the Median, the usage data must first be ranked (sorted in ascending order). The Median is the number in the middle, or, if the size of the distribution is even, the Median is the average value of the two middle numbers. The UFJ1 thus determined should be published as an integer, with no decimal places.

3.1.7 Precision and accuracy

The UFJ should be published as an integer. Monthly patterns of usage at the article level are quite volatile; UFJs do, therefore, have a component of statistical noise and this must be reflected in the precision with which they are quoted and the level of confidence associated with them.

3.2 Reporting the Usage Factor

This section lists the Usage Factor Reports and specifies the data they must include, as well as the format they must adopt.

The Usage Factor must be updated and reported annually on a calendar year basis. The Usage Factor for the Usage Period 2009/2010 is followed by the Usage Factor for the Usage Period 2010/2011, which is followed by the Usage Factor for the Usage Period 2011/2012, etc

3.2.1 Usage Factor: Journals 1: (UFJ1)

Usage Factor Reports must be provided in XML format, in accordance with the specified schema, in order to facilitate the automated consolidation of UFJ data from different publishers by the UF Registry. For visualisation purposes an example is provided below of the Usage Factor; Journals 1 Report in Excel format.

Usage Factor: Journals 1 (UFJ1): Median Usage Factor by Journal for All Content (UFJ1a) and Articles Only (UFJ1b)

Usage Factor: Journals (UFJ1) Report										
<Publisher>										
<Platform>										
<Sources of Usage Data>										
<Years>	Journal DOI	Print ISSN	Online ISSN	Subject category	UFJ1a: All Content			UFJ1b: Articles Only		
					2009/2010	2010/2011	2011/2012	2009/2010	2010/2011	2011/2012
	Journal AA									
	Journal BB									
	Journal CC									

Note:
1. The Subject Category Classification Guidelines may be found in Appendix E of the Code of Practice
2. Sources of Usage Data: the platforms on which usage of the full-text articles in the journals listed in this report has been recorded must be given. The most highly used platforms, up to a maximum of 5, should be listed.

Note:

- Articles covered in UFJ1b are: short communications, full research articles and review articles
- All journals included in the report must be allocated a Subject Category consistent with the Subject Classification in Appendix D
- The Usage Factors for any given Usage Period must be published within 3 calendar months of the end of that Usage Period. Thus, the Usage Factor for the Usage Period 2009/2010 must be published before 31 March 2011.
- Usage Factors should be ranked within subject groupings in descending numerical order

- The Excel version of this report may be found in Appendix E

3.3 Usage Factor Central Registry

The Usage Factor Central Registry is supervised by COUNTER. The Registry has two main functions:

- To collect and process Usage Factor data for publications from publishers and other sources in order to derive Consolidated Usage Factors per publication
- To provide a central, open source Registry of valid Publisher Usage Factors and Global Usage Factors

3.3.1 Consolidation of Usage Factor data

Those publishers wishing to report Consolidated Usage Factors for their publications, based on usage data from a number of sources in addition to the publisher's own platform (e.g. aggregators, subject repositories, or institutional repositories) may do this consolidation themselves, or may use the Central Registry to fulfil this function. Publishers wishing to use the Registry for this purpose must supply the Registry with usage data in the format specified in Appendix B of this Code of Practice. Only COUNTER-compliant publishers shall have the right to submit usage data to the Central Registry.

4. Data Processing

Usage data collected by publishers for the Usage Factor must be in the format specified in Appendix B and consistent with the COUNTER Code of Practice. The data processing rules to be followed will be found in Section 5 of the Counter Code fo Practice for e-Resources.

4.1 Gaming

As attempts to game the Usage Factor are highly likely, measures are necessary to counteract the potential inflationary effects of gaming on UFJ. Implementation of the COUNTER protocols against machine-driven gaming is a requirement for compliance with the Usage Factor Code of Practice.

5. Auditing

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

The first independent audit will be required in 2016, and annually thereafter. COUNTER will recognize a Usage Factor 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, which is not a CA or a CPA. Information on COUNTER-approved auditors is available from COUNTER.

The Audit Process

1. Usage Factor compliant publishers will be notified in writing that an audit is required at least 3 months before the audit is due.
2. Publishers should respond within 1 month of receiving the reminder by informing COUNTER of their planned timetable for the audit and the name of the organization 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 of this Code of Practice.
4. Upon completion of the audit the auditor is required to send a signed copy of the audit report to the COUNTER office (lorraine.estelle@counter.org).
5. Categories of audit result are as follows:
 - a. **A Pass**, in which case no further action is required by the publisher as a result of the audit. In some cases the auditor may add Observations to the audit report, which is designed to help the publisher improve its Usage Factor reporting, but which are outside the scope of the audit itself.
 - b. **A Qualified Pass**, in which the auditor deems the vendor to have passed the audit, but where the auditor raises a Minor Issue requiring further action to maintain a valid Usage Factor listing in the Registry. A Minor Issue does not affect the reported figures, but is one which should be resolved within 3 months of the audit to COUNTER's satisfaction. An example of a Minor Issue is where a report format does not conform to the Usage Factor specifications.
 - c. **A Fail**, where the auditor has identified an issue that must be resolved immediately for the publisher to maintain a valid listing in the Registry.

6. Compliance

Timetable and procedure

This Code of Practice is a valid COUNTER standard from its date of publication.

Applications for inclusion on the Central Registry of Usage Factors

A Central Registry of Usage Factors for journals and other publications is supervised by COUNTER and posted on the COUNTER website. Publishers may apply to the COUNTER Project Director (lorraine.estelle@counterusage.org) for their Usage Factors to be included on the Registry. Prior to being included in the Registry, the publisher must provide COUNTER with a list of their Usage Factors as specified in Section 3.2.1 above. Following an initial review by COUNTER the publisher will be asked to sign a Declaration of Usage Factor Compliance (Appendix C), after which the publisher and its products will be added to the *Provisional* Register. Within 6 months thereafter a report from an independent auditor, confirming that the Usage Factors have been calculated and reported in accordance with the specifications of this Code of Practice, will be required. Once this has been received the relevant publisher Usage Factors will be transferred from the *Provisional* Register to the *Official* Register. No Usage Factor shall remain on the Provisional Register for more than 12 calendar months. See Appendix E for a description of the auditing procedure.

The signed Declarations should be scanned and sent to the COUNTER office as email attachments, to: lorraine.estelle@counterusage.org

7. Subject Classification Scheme

The Usage Factor subject classification scheme is the Ringgold Subjects scheme (<http://www.ringgold.com/pages/subjects.html>), which has been developed and maintained by Ringgold Inc.

Vendors must allocate each journal (or other publication) with a Usage Factor a classification in Subject Level 1, Subject Level 2 and Subject Level 3 in the Ringgold Subjects scheme, using the spreadsheet specified in Appendix D

8. Guidelines for interpretation of Usage Factors

All statistical measures have inherent limitations and care should be taken in interpreting them. Amin and Mabe, in their article in Perspectives in Publishing (2002, updated in 2007), http://www.elsevier.com/framework_editors/pdfs/Perspectives1.pdf) pointed out that the well-established and much used Impact Factor should be interpreted with care, as it the journal rankings it provides can change dramatically, for example, when the time frame of measurement. As a rule of thumb they state that journals with Impact Factors that differ by less than 25% belong together in the same rank. This need not undermine the great value of Impact Factor as an indicator of the relative status of journals within a given discipline, but it does imply that it should be used with care, and preferably in conjunction with other qualitative and quantitative measures. Similar care should be taken in interpreting Usage Factors and the following Guidelines are designed to aid this process:

- As with journal Impact Factors, UFJs should not be compared across subject groups and should therefore be published and interpreted only within appropriate subject groupings
- Journal Usage Factors should be published with appropriate confidence intervals around the average to guide their interpretation.

9. Maintenance and development of the Code of Practice

COUNTER has overall responsibility for the development and maintenance of this Code of Practice. Each new Release will be made openly available in draft form on the COUNTER website for comment before it is finalised. Comments may be sent to the COUNTER Project Director, Lorraine Estelle at lorraine.estelle@counterusage.org.

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 Code of Practice.
- Where you are proposing an addition to the Code of Practice, please indicate the preferred section within the current version

10. Appendices

Appendix A: Glossary of Terms relevant to Usage Factor

Appendix B: Specification for the collection of Usage Factor data - COUNTER Article Report 1

Appendix C: Vendor Declaration of Usage Factor Compliance

Appendix D: Usage Factor Subject Classification – Ringgold Subjects

Appendix E: Excel example of Usage Factor Journals: Report 1 (UFJR1)

Appendix F: Auditing requirements and tests (to be added before 30 June 2015)