



COUNTER

Release 5.1

The Friendly Guide to

# Working with COUNTER Reports



## This is part of a suite of Friendly Guides demystifying Release 5.1 of the COUNTER Code of Practice

The complete series is:

- Introducing COUNTER Reports
- Introducing COUNTER Metrics
- COUNTER Attributes, Elements, and other (slightly) techy things
- COUNTER and Open Access
- Becoming COUNTER compliant
- COUNTER for consortia
- Changes in Release 5.1

*Note: for ease of reading we have used plain English in all the Guides. For technical reasons, the Code of Practice itself uses underscores to link words – thus Data Type is actually Data\_Type, and Total Item Investigations is Total\_Item\_Investigations.*

## What you'll find in this Guide

How can I get my COUNTER Reports? .....	3
Using a SUSHI server .....	3
Library administration tools on publisher websites .....	4
Report formats.....	5
Key spreadsheet tools.....	6
Filtering.....	6
Pivot tables.....	7

# How can I get my COUNTER Reports?

All COUNTER Reports and Standard Views of COUNTER Reports have to be available in our machine-readable JSON schema, downloadable via the SUSHI protocol, and in tabular form (e.g. as an Excel spreadsheet).

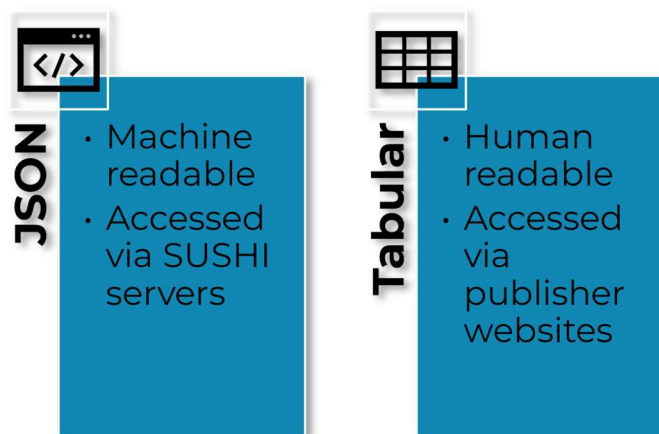


Figure 1. COUNTER Reports are available in two file formats.

Usage statistics must not be browser-dependent, and we expect publishers to support current versions of Google Chrome, Microsoft Edge, and Mozilla Firefox.

Typically, we ask publishers to provide COUNTER reports on a per-customer ID basis. There are two exceptions to this per-customer rule: first, open access reporting (see the *Friendly Guide to COUNTER and OA*), and second consortia reporting

(see the *Friendly Guide to COUNTER for consortia*).

There are samples of all four COUNTER Reports, and the Standard Views of the COUNTER Reports, in both JSON and tabular formats in the Code of Practice.

## Using a SUSHI server

SUSHI is a software protocol (an API) designed to make it easier for librarians to gather their usage statistics, and all COUNTER-compliant report providers support it. SUSHI is used to deliver reports in the JSON schema, which is a structured data format more similar to XML than to spreadsheet formats. There's more about JSON later in this Guide.

In our SUSHI setup each report provider has a SUSHI-compliant server, and librarians run client software to harvest their reports. The library client may be anything from a desktop program to a cloud-based commercial harvesting service – you can even just use your browser, though that's not recommended.

We keep a list of the SUSHI details for all compliant report providers in the COUNTER Registry, which provides details of every platform that offers audited, COUNTER-compliant usage reports. You can find out more at <https://registry.projectcounter.org/>.

In the SUSHI section of each record you'll see a SUSHI URL, which is the base URL of the vendor's SUSHI server. You'll also see information about what kind of authentication is required by the server – typically your Customer ID, but other security might be required.

Once you have logged into the SUSHI server, you can add several paths to the base URL to find out useful information. From the base URL <https://usage.reporting.service/counter5/sushi/r51/>, those four sections would look like this:

- **Status**, which will tell you if the SUSHI service is active: <https://usage.reporting.service/counter5/sushi/r51/status>. From R5.1 onwards, the Status endpoint is public – you don't need to log in to use it.
- **Reports**, which will tell you the COUNTER Reports supported by the SUSHI service: <https://usage.reporting.service/counter5/sushi/r51/reports>
- **Reports/ReportID**, which will deliver a specific report <https://usage.reporting.service/counter5/sushi/r51/reports/{reportID}>. For example, /reports/TR will harvest a Title Report.
- **Members**, which will give you a list of consortium members <https://usage.reporting.service/counter5/sushi/r51/status>

## Library administration tools on publisher websites

Many publisher platforms also offer library administration and subscription management tools including COUNTER reports through the website's user interface. They are available under many different labels, including 'Information For Librarians', 'Manage Your Subscriptions', 'Library Administration', etc. If you choose to download reports through the library administration pages, you will have the option to download them in either the JSON format, or as a delimited file.

# Report formats

As we've already said, COUNTER reports come in two formats: JSON and delimited files.

While formatting, in the sense of typeface and colour, is irrelevant in both JSON and delimited files, we do require that report providers stick to a standard structure for all COUNTER Reports and Standard Views of COUNTER Reports, as shown in Figure 2, and that all reports (JSON and delimited) use UTF-8 encoding so that special characters are preserved.

HEADER	(rows 1-13)						
BLANK ROW	(row 14)						
COLUMN HEADINGS	(row 15)						
BODY							
Report item description	Platform	Report item identifiers	Parent item	Report / Attributes	Metric types	Reporting period total	Usage by month

JSON files are machine-readable and look a bit like code. They can be ingested into reporting tools and spreadsheet programs and the data 'translated' into human-readable formats and charts.

Delimited files can be opened and read in all the usual spreadsheet programs, including Excel and Google Sheets. COUNTER-compliant delimited files will be either 'comma separated' (.csv) or tab separated (.tsv) files.

Figure 2. The standard layout of a tabular COUNTER Report.

In summary, you can expect:

- The report header, which is 13 pieces of information describing the information used to compile the report.
- The body of the report.
  - For JSON files, each report item will appear in a separate nested chunk of code.
  - For delimited files, you'll see one row of column headers using element and attribute names, then the metrics themselves.

	A	B
1	Report_Name	{Report Name}
2	Report_ID	{Report ID}
3	Release	{COUNTER Release}
4	Institution_Name	{Institution Name}
5	Institution_ID	{Institution identifiers in the format {namespace}:{value} with multiple identifiers separated with ";"}
6	Metric_Types	{Metric_Type list separated with ";"}
7	Report_Filters	{Report filter list as {name}={value} pairs separated with ";" and multiple values separated with " "}
8	Report_Attributes	{Report attribute list as {name}={value} pairs separated with ";" and multiple values separated with " "}
9	Exceptions	{Exceptions in the format {Code}:{Message}{{Data}} with multiple exceptions separated with ";"}
10	Reporting_Period	{Date range of the report in the format Begin_Date={yyyy-mm-dd}; End_Date={yyyy-mm-dd}}
11	Created	{Date report run in the format {yyyy-mm-ddThh:mm:ssZ}}
12	Created_By	{Name of the organization creating the report}
13	Registry_Record	{Link to Registry record as a URL}
14		

Figure 3. The standard structure of a 13-row COUNTER Report header.

## Key spreadsheet tools



### Filtering

- Rearrange data
- Exclude attributes

### Pivot tables

- Rapid summaries
- Visualization



There's a detailed Foundation Class on this topic in our Media Library. It's called *Working with COUNTER 5 reports in Microsoft Excel* – while it was produced for Release 5, it absolutely still applies to R5.1. We can also recommend the on-board help guides for Excel, which go into much more detail than we can cover here.

Figure 4. Filters and pivots are great for working with COUNTER Reports!

## Filtering

Filtering is a very useful tool which allows you to rearrange, exclude or otherwise filter your usage reports to show only specific bits of information. Common examples within COUNTER are to filter a Title Report to show only those titles with Data Type Book, to filter a Database Report to show only search metrics without investigations or requests, and to filter an Item Report to show only items with Access Type Open. Filters can be combined, too, so you can get extremely granular if that's what you want.

Simply adding a filter to Row 15 of your delimited file – that's the column headers – will allow you to start playing with filters.

## Pivot tables

Our Project Director loves a pivot table: they're a great way to quickly summarise big datasets of the kind you find in COUNTER reports, and they're easy to turn into graphs or charts. Just stick your cursor into any cell of the report body, click 'Insert > Pivot Table' and you're on your way.

Unlike filtering, pivot tables will allow you to easily total up different categories of data. Want to know how many Unique Item Investigations and Unique Item Requests there have been across all titles in a Title Report? Set up your pivot table to use Metric Type as the row and Reporting Period Total as the value, and you've got your answer.

### Find out more

There is a lot more information in the full Code of Practice (<https://cop5.projectcounter.org/en/5.1>) and of course in the COUNTER Media Library (<medialibrary.projectcounter.org>).

If you have questions that haven't been answered elsewhere, please don't hesitate to email our Project Director:  
[tasha.mellins-cohen@counterusage.org](mailto:tasha.mellins-cohen@counterusage.org)





# COUNTER

Thanks to our generous sponsors, Friendly Guides will soon be available in...

German  
sponsored by Thieme



Spanish  
sponsored by Gale



French  
Translated by the Couperin Consortium and  
the Canadian Research Knowledge Network

Japanese  
Translated by Yuimi Hlasten, Denison College

