



How to Produce a Web Usage Report with Latitude-Longitude Values in Google Analytics

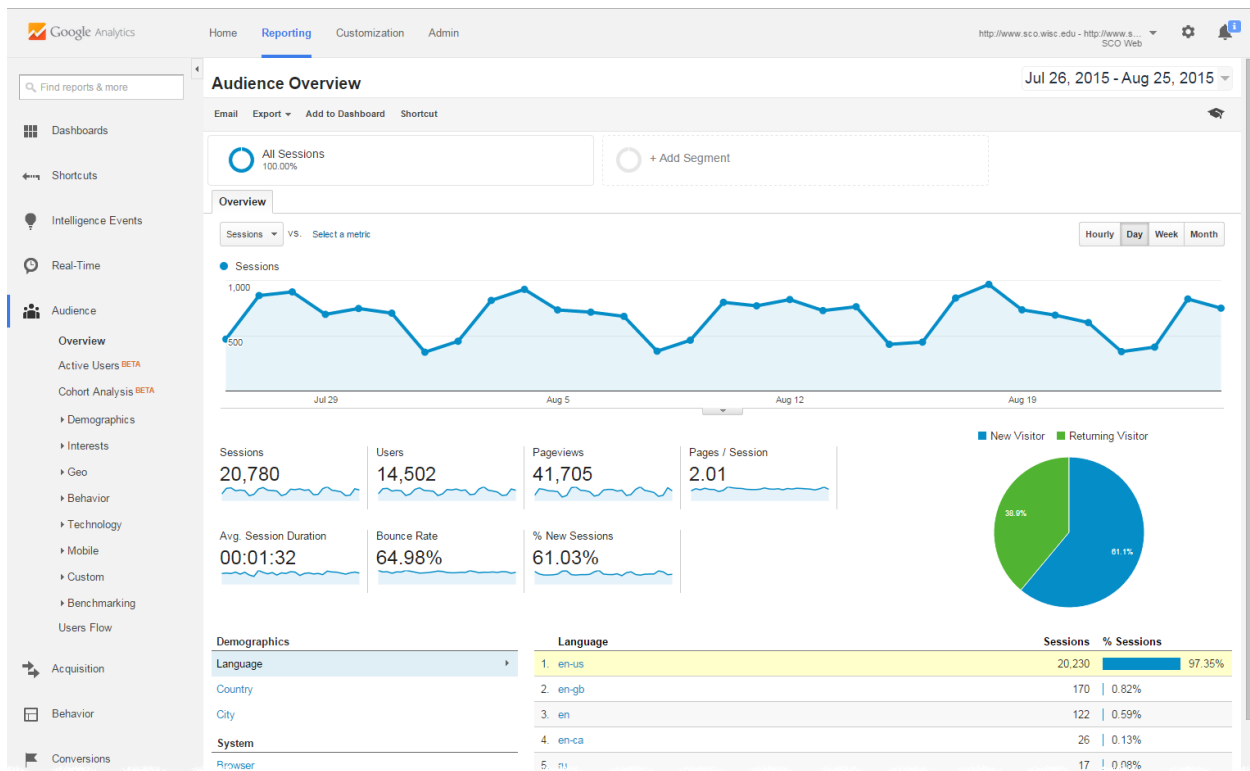
Addendum to: H. Veregin. (2015). Using maps in Web analytics to evaluate the impact of Web-based Extension programs. *Journal of Extension*, 53(3).

http://www.joe.org/joe/2015june/pdf/JOE_v53_3iw2.pdf

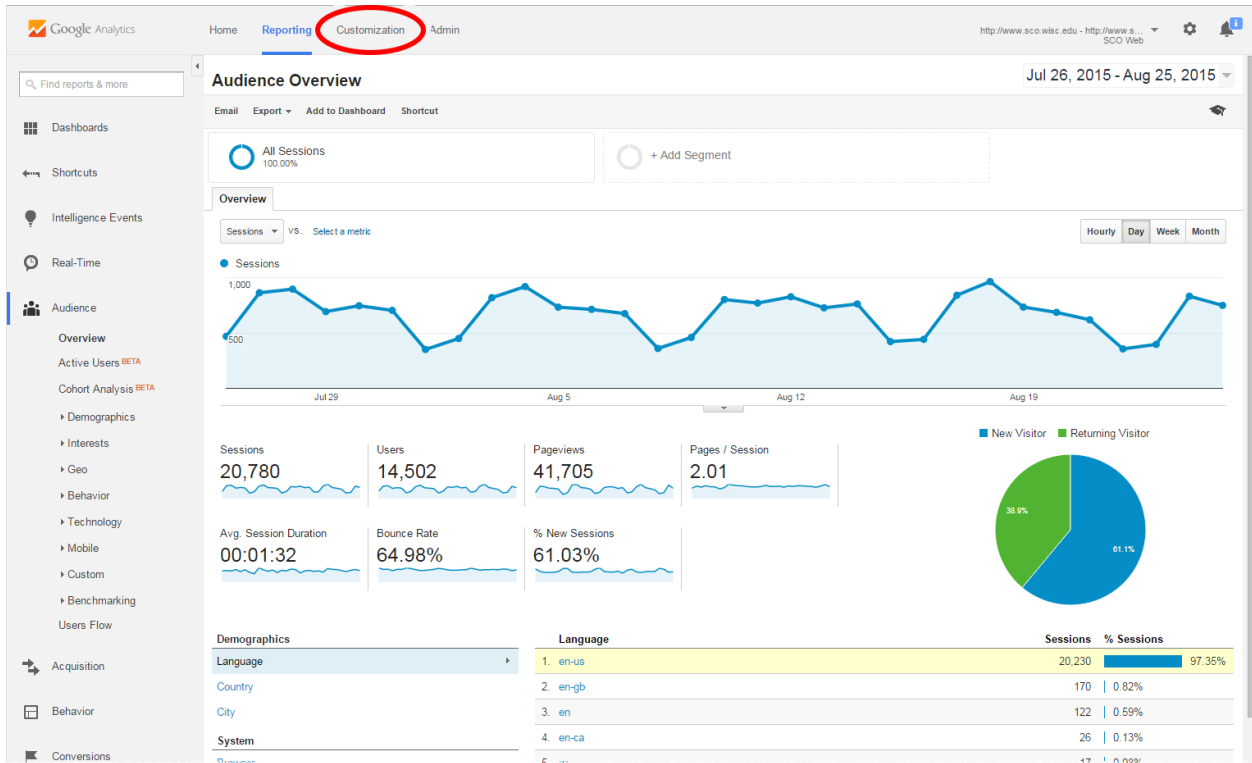
August 2015

This document shows how to use Google Analytics to create a web usage report that contains latitude-longitude values. The report can be imported into GIS software to make a map or perform analysis. It is assumed that the reader has a Google Analytics account that has been active long enough to collect a time-series of usage activity. In this document, the number of sessions is the usage metric, but other metrics could be used as well.

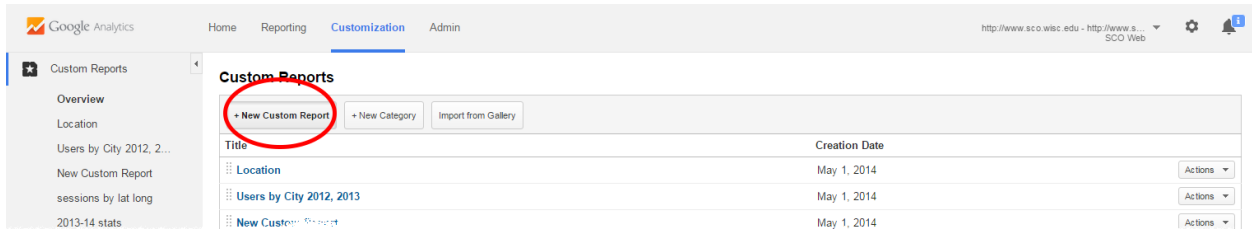
Step 1. Log in to your Google Analytics account.



Step 2. Click on the **Customization** tab.



Step 3. Click the **+ New Custom Report** button.



Step 4. Create the report.

Give the report an appropriate title. (In this example, it is **lat long sessions**).

One report can have multiple tabs, so give the tab an appropriate name as well. (In this example the name is **Flat table of sessions by lat long**).

Choose **Flat Table** as **Type**.

For **Dimensions** add **Latitude** and then **Longitude**. These are both under **Users** when you click on the **+ add dimension** button (green).

For **Metrics** choose an appropriate website usage metric. In this example, **Sessions** is used. Sessions is under **Users** when you click on **+ add metric** button (blue).

No special **Filters** or **Views** were used in this example.

Save the report. (Click on **Save** button.)

The screenshot shows the Google Analytics 'Create Custom Report' interface. The page title is 'Create Custom Report'. The breadcrumb navigation is 'Home > Reporting > Customization > Admin'. The URL is 'http://www.sco.wisc.edu - http://www.sco.wisc.edu/SCO Web'. The left sidebar shows 'Custom Reports' with a list of reports: 'Overview', 'Location', 'Users by City 2012, 2...', 'New Custom Report', 'sessions by lat long', '2013-14 stats', 'Location Test HV', and 'sco wisc report'. The main content area is titled 'Create Custom Report' and contains the following sections:

- General Information:** Title: 'lat long sessions'.
- Report Content:**
 - Tab: 'Flat table of sessions by lat long' (active), '+ add report tab'.
 - Name: 'Flat table of sessions by lat long', 'Duplicate this tab'.
 - Type: 'Explorer', 'Flat Table' (selected), 'Map Overlay'.
 - Dimensions: 'Latitude', 'Longitude', '+ add dimension'.
 - Metrics: 'Sessions', '+ add metric'.
- Filters - optional:** '+ add filter'.
- Views - optional:** 'All views associated with this account', 'SCO Web' (selected).

At the bottom, there are 'Save' and 'Cancel' buttons.

Step 5. Adjust time period of analysis if needed.

The screenshot shows the Google Analytics Custom Reports interface. The report is titled "lat long sessions" and is set to "All Sessions" (100.00%). The date range is "Jul 26, 2015 - Aug 25, 2015", which is circled in red. The report displays a "Flat table of sessions by lat long" with columns for Latitude, Longitude, and Sessions. The table contains 10 rows of data.

Latitude	Longitude	Sessions
1. 43.0731	-89.4012	2,520 (12.13%)
2. 41.8781	-87.6298	1,282 (6.17%)
3. 43.0389	-87.9065	875 (4.21%)
4. 44.8114	-91.4985	453 (2.18%)
5. 44.2619	-88.4154	303 (1.46%)
6. 44.5192	-88.0198	299 (1.44%)
7. 44.9778	-93.2650	287 (1.38%)
8. 42.6828	-89.0187	282 (1.36%)
9. 43.8014	-91.2396	273 (1.31%)
10. 44.4489	-88.0604	258 (1.24%)

Step 6. Adjust number of rows per page to the desired number. Only this number of rows will be exported at a time, so you may need to export your report in several pieces.

The screenshot shows the Google Analytics Custom Reports interface. The report is titled "lat long sessions" and is set to "All Sessions" (100.00%). The date range is "Jul 1, 2014 - Jun 30, 2015". The report displays a "Flat table of sessions by lat long" with columns for Latitude, Longitude, and Sessions. The table contains 10 rows of data. The "Show rows" dropdown menu is open, showing options from 10 to 5000, with 5000 circled in red.

Latitude	Longitude	Sessions
1. 43.0731	-89.4012	29,389 (12.15%)
2. 41.8781	-87.6298	11,434 (4.73%)
3. 43.0389	-87.9065	10,379 (4.29%)
4. 44.8114	-91.4985	6,747 (2.79%)
5. 43.8014	-91.2396	3,435 (1.42%)
6. 44.2619	-88.4154	3,320 (1.37%)
7. 0.0000	0.0000	3,269 (1.35%)
8. 44.5192	-88.0198	3,083 (1.27%)
9. 43.1836	-89.2137	2,949 (1.22%)
10. 44.5236	-89.5746	2,514 (1.04%)

Step 7. Click on **Export** and choose appropriate file type.

The screenshot shows the Google Analytics Custom Reports interface for a report titled "lat long sessions" covering the period from July 1, 2014, to June 30, 2015. The "Export" dropdown menu is open, and "Excel (XLSX)" is highlighted with a red circle. Other options in the menu include CSV, TSV, TSV for Excel, Google Sheets, and PDF. Below the menu, a table displays session data with columns for Latitude, Longitude, and Sessions.

	Latitude	Longitude	Sessions
1.	43.0731	-89.4012	29,389 (12.15%)
2.	41.8781	-87.6298	11,434 (4.73%)
3.	43.0389	-87.9065	10,379 (4.29%)
4.	44.8114	-91.4985	6,747 (2.79%)
5.	43.8014	-91.2396	3,435 (1.42%)
6.	44.2619	-88.4154	3,320 (1.37%)
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8.	44.5192	-88.0198	3,083 (1.27%)
9.	43.1836	-89.2137	2,949 (1.22%)
10.	44.5236	-89.5746	2,514 (1.04%)
11.	44.9591	-89.6301	2,355 (0.97%)
12.	44.0247	-88.5426	2,093 (0.87%)
13.	42.6828	-89.0187	2,058 (0.85%)
14.	44.4489	-88.0604	1,935 (0.80%)

Step 8. Open the resulting export file. The example below is an Excel file. This file can be edited as needed and imported into QGIS, ArcGIS, or other GIS software. Note that some anomalies may occur. In the example below, there are 3269 sessions with 0,0 as the lat-long (record 8). These are cases where the location could not be determined. Also remember that locations are not highly precise. They are city-level locations, not address-level.

The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Latitude	Longitude	Sessions																		
2	43.0731	-89.4012	29389																		
3	41.8781	-87.6298	11434																		
4	43.0389	-87.9065	10379																		
5	44.8114	-91.4985	6747																		
6	43.8014	-91.2396	3435																		
7	44.2619	-88.4154	3320																		
8	0.0000	0.0000	3269																		
9	44.5192	-88.0198	3083																		
10	43.1836	-89.2137	2949																		
11	44.5236	-89.5746	2514																		
12	44.9591	-89.6301	2355																		
13	44.0247	-88.5426	2093																		
14	42.6828	-89.0187	2058																		
15	44.4489	-88.0604	1935																		
16	43.0972	-89.5043	1923																		
17	43.7730	-88.4471	1631																		
18	43.0023	-89.4241	1604																		
19	43.0495	-88.0076	1493																		
20	43.4253	-88.1834	1426																		
21	44.9833	-93.2667	1382																		
22	42.9764	-88.1084	1191																		